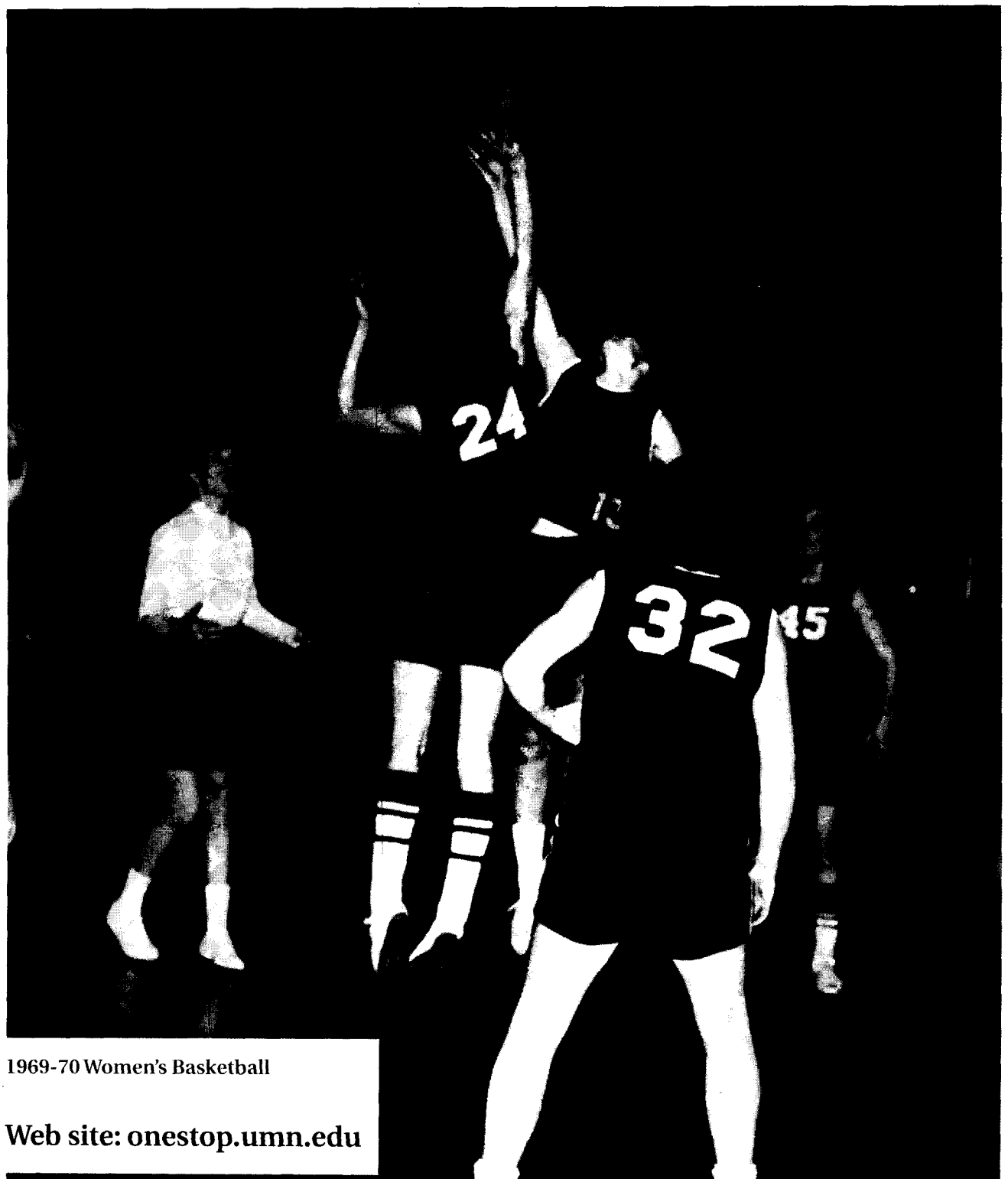
UNIVERSITY OF MINNESOTA

COURSE GUIDE
FALL 2002



1969-70 Women's Basketball

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UNIVERSITY OF MINNESOTA

Course Guide

Fall Semester 2002

Course Guide
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Minneapolis, MN 55455
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Publication Information
The *Course Guide* is published by the University of Minnesota, Office of the Senior Vice President for Academic Affairs, Office of the Registrar. Questions or comments can be directed to the above address.

Disclaimer
The information printed in the *Course Guide* is supplied by the instructor and while it should reflect the way the course will be taught it is subject to change. Instructors may change the course requirements, content, assignments, and grading policies at their discretion. Students should consult the *Class Schedule* to determine class times, locations, and how to register for classes. If a department or instructor did not submit any information on a course, the course does not appear in this Course Guide. Check the Web (at http://www.onestop.umn.edu) for changes that occur after publication.

Colleges
The *Course Guide* contains information on 1000-, 2000-, 3000-, 4000-, and 5000-level courses in the colleges listed below. For a complete list of courses offered at the University of Minnesota, see the *Class Schedule*.

College of Agricultural, Food, and Environmental Sciences
College of Architecture and Landscape Architecture,
College of Biological Sciences,
College of Education and Human Development,
College of Human Ecology,
College of Liberal Arts,
College of Natural Resources,
General College,
Carlson School of Management,
and the Institute of Technology.

Recycling
The *Course Guide* is printed on recycled paper containing 25% post consumer waste. The *Course Guide* can be recycled along with telephone books.

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Alternative Formats

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College Key

AG	College of Agriculture
CALA	College of Architecture and Landscape Architecture
CBS	College of Biological Sciences
ED	College of Education
HE	College of Human Ecology
CLA	College of Liberal Arts
CNR	College of Natural Resources
GC	General College
CSOM	Carlson School of Management
IT	Institute of Technology

Prerequisites Key

SP—The semester prerequisite is intended to show student what is required in terms of semester courses before taking the listed semester course.

QP—The quarter prerequisite is intended to show students what is required, particularly in terms of quarter courses, before taking the semester course.

Equal Opportunity

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

In adhering to this policy, the University abides by the requirements of the Minnesota Human Rights Act, Minnesota Statute Ch. 363; by the Federal Civil Rights Act, 42 U.S.C. 2000e; by the requirements of Title IX of the Education Amendments of 1972; by Sections 503 and 504 of the Rehabilitation Act of 1973; by the Americans with Disabilities Act of 1990; by Executive order 11246, as amended; by 38 U.S.C. 2012, the Vietnam Era Veterans Readjustment Assistance Act of 1972, as amended; and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Julie Sweitzer, Acting Director, Office of Equal Opportunity and Affirmative Action, University of Minnesota, 419 Morrill Hall, 100 Church Street S.E., Minneapolis, MN 55455, 612-624-9547.

Faculty Awards Key

The *Course Guide* lists a variety of awards, honors and professorships next to the names of the faculty who hold these honors. Some of the most prestigious and frequently listed awards are described below:

Regents' Professor—This is the highest honor a faculty can receive from the University. It is given for outstanding academic achievement, demonstrated scholarly and artistic excellence, as well as a strong commitment to quality teaching. Only 20 faculty hold the title of Regents' Professor at a given time and once a faculty member receives the award they hold that title for life. Each Regents' Professor receives an annual $10,000 award funded through the University Foundation.

Morse Alumni Award for Outstanding Contributions to Undergraduate Education—This award is given to professors from the Twin Cities and Coordinate Campuses who show outstanding contributions to undergraduate education. The winners receive $2,500 cash and $2,500 to his/her department each year for three consecutive years. Up to ten professors may win the award yearly. The Award is named after the former dean of General College, Hoarce T. Morse, and the Alumni Association which helps fund the award.

College of Agriculture Distinguished Teaching Award—Distinguished Teaching Awards were established in the College of Agriculture to recognize those members of the faculty who have make significant contributions to teaching. The Distinguished Teaching Award symbolizes the College of Agriculture's commitment of excellence in teaching. Two cash awards are presented annually, one to a nontenured faculty with an award of $1,000 and one to a tenured faculty member with an award of $1,500.

College of Liberal Arts Distinguished Teacher Award—This award is given to two College of Liberal Arts, professors each year for their outstanding contributions to undergraduate education. Each professor receives a one time cash award of $2,000.

Stanley Dagley Distinguished Teacher Award—This award is given to faculty in the College of Biological Sciences for outstanding teaching. Each year one professor is chosen and is given a $1,000 cash award.

John Tate Award for Undergraduate Academic Advising—The award is named in honor of John Tate, Professor of Physics and first Dean of University College (1930-1941). Tate Awards serve to recognize and reward academic advising. They call attention to the contribution faculty and academic advisers make in helping students formulate and achieve intellectual career, and personal goals. Each winner receives a framed certificate of recognition and a gift of $1,000.

Institute of Technology Professorship—The Institute of Technology Professorships recognize distinguished faculty members within the Institute who are judged to be exceptional through: unusual efforts in, and contribution to, teaching; a reputation in scholarly research; and a genuine commitment to the Institute of Technology and its activities. A faculty member who is appointed as an Institute of Technology Professor will be granted a one-time unrestricted fund of $15,000 to be used for professional development or research.

George W. Taylor/I.T. Alumni Society Award—The George W. Taylor/I.T. Alumni Society Awards are endowed within the Institute of Technology in memory of George W. Taylor, a 1934 graduate of the Mechanical Engineering Department. Each year an award is given for excellence in each of the 3 categories of teaching, research, and service. Winners receive an award citation, and an honorarium of $1,500.

Accounting

3-122 CarlSMgmt; 612-624-6506

Acct 2050 Introduction to Financial Reporting
(Sec 001-013); A-F only; prereq—Completion of 26 credits; 4 cr
Instructor: STAFF
This course introduces the topic of financial accounting for U.S. organizations. The purpose of financial accounting is to provide information to owners of the firm and other interested parties to serve as the basis for making decisions about that firm. The student who successfully completes this class will be able to read and understand U.S. financial statements. This course is unusual in that it covers material in one semester that is more commonly covered in two quarter courses or one and a half semester courses. The cost to the student is obvious, this course moves quickly and you must be willing to put in extra time and effort in order to take advantage of this saving. These costs are offset by the benefit of getting a lot of education for your time and tuition dollar. Also, packing your introductory accounting into one semester frees up time and credit hours that can be used on elective courses.
Class time: 80% lecture, 20% Problem working sessions.
Work load: 100 pages of reading per week, 2 exams, Course project-analyze a set of financial statements.
Grade: 30% mid-semester exam(s), 50% final exam, 10% special projects, 10% problem solving
Exam format: Problems.
Course URL: www.csom.umn.edu/wwwpages/courses/acct/1050/a1050.htm

Acct 3199 Internship in Public Accounting
(Sec 001); S-N only; prereq—5125, instr consent; 2 cr
Instructor: Biondich, Nick E
Students interested in earning academic credit for work involving an accounting internship should contact nick biondich at 612-624-7055.

Acct 3299 Internship in Management Accounting
(Sec 001); S-N only; prereq—Acct 3201, instr consent; 2 cr
Instructor: Biondich, Nick E
Students interested in earning academic credit for work involving an accounting internship should contact Nick Biondich at 612-624-7055.

Acct 5102 Intermediate Accounting II
(Sec 001); A-F only; prereq—5101[mgmt or grad mgmt student]; 4 cr
Instructor: Tranter, Terry L
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.
Class time: 100% lecture
Work load: 30 pages of reading per week, 15 pages of writing per semester, 4 exams, 2 papers, homework problems—8 hours/wk
Grade: 47% mid-semester exam(s), 25% final exam, 19% written reports/papers, 9%
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
(Sec 001, 002); A-F only; prereq—[3101/5101 or 5100/6100], [accounting major or grad management student]; 4 cr
Instructor: Shapiro, Brian Philip
Acct 5125 is designed for undergraduate and graduate students, particularly accounting majors and others who seek a better understanding of the role and limitations of auditing in corporate financial reporting. The course begins with an overview of auditing and its various roles in society, the auditing environment, and a risk-based approach to accumulating audit evidence. It then examines more closely the planning, execution, and completion of audit procedures that culminate in the auditor's report. Auditing concepts are also applied to compilation, review, and other attestation and assurance services, including Webtrust.
Class time: 38% lecture, 37% discussion, 25% group activities
Work load: 75 pages of reading per week, 10 pages of writing per semester, 3 exams, 2 papers, 3 group projects
Grade: 30% mid-semester exam(s), 25% final exam, 20% quizzes, 25%, cases and group projects
Exam format: varies with topic

Aerospace Engineering and Mechanics

107 Akerman Hall; 612-625-8000

AEM 2011 Statics
(Sec 001, 020); A-F only; prereq—PHYS 1301, [concurrent enrollment Math 2374 or equiv], IT; 3 cr
Instructor: STAFF
Force and moment vectors, resultants. Principles of statics and free-body diagrams. Applications to simple trusses, frames, and machines. Distributed loads. Internal forces in beams. Properties of areas, second moments. Laws of friction. 3 credits. Prerequisites: IT student, Phys 1301, concurrent registration in Math 2374 or equivalent.

AEM 2012 Dynamics
(Sec 001); A-F only; prereq—2011, [concurrent enrollment Math 2373 or equiv], IT student; 3 cr
Instructor: STAFF
Review of particle dynamics. Mechanical systems and rigid-body dynamics. Kinematics and dynamics of plane systems. Rotating coordinate systems in 2-D. Energy and momentum of 2-D bodies and systems. Vibrations.

AEM 4251 Computational Fluid Mechanics
(Sec 001); prereq—[4201 or CS 1113 or equiv], [IT upper div or graduate student]; 3 cr
Instructor: James, Ashley
Emphasis on introductory concepts in finite difference and finite volume methods as applied to various ordinary and partial differential model equations in fluid mechanics; fundamentals of spatial discretization and numerical integration; numerical linear algebra. Introduction to engineering and scientific computing environment. Advanced topics may include finite element methods, spectral methods, grid generation, turbulence modeling.
Class time: 100% lecture
Work load: 2 midterms, 1 project (incl. report), 6-8 HW sets
Grade: 60% mid-semester exam(s), 30% special projects, 10% problem solving
Exam format: ~3 problems, closed book

AEM 4295 Problems in Fluid Mechanics
(Sec 001); max crs 6; 6 repeats allowed; prereq—dept consent; 1-3 cr
Instructor: STAFF
Topics of current interest. Individual projects with consent of faculty sponsor.

AEM 4301 Spaceflight Dynamics
(Sec 001); prereq—[2012 or equiv], [Math 2373 or equiv], [IT upper div or grad student]; 3 cr
Instructor: Ketema, Yohannes
The two-body problem. Earth-satellite operations, rocket performance, reentry dynamics, the space environments, the restricted three-body problem, interplanetary trajectories. Numerical simulations. Elementary spacecraft attitude control. Design project. Student may contact instructor for further information.

AEM 4331 Aerospace Vehicle Design I
(Sec 001); prereq—[2301, AEM sr] or instr consent; 3 cr
Instructor: Vano, Andrew Emil
Students work in teams to design aerospace vehicle; mission requirements, trade studies, sizing/weight estimates, CAD/vehicle integration, performance, propulsion, systems equipment, operating envelopes, stability/control, specifications, certification/ethics. Written report, oral presentation.

AEM 4495 Problems in Dynamics and Control
(Sec 001); max crs 6; 6 repeats allowed; prereq—dept consent; 1-3 cr
Instructor: STAFF
Topics of current interest. Individual projects with consent of faculty sponsor.

AEM 4581 Mechanics of Solids
(Sec 001); prereq—3031, [Math 2373 or equiv], [Math 2374 or equiv], [IT upper div or grad student]; 3 cr
Instructor: Fosdick, Roger L
Introduction to continuum mechanics in one space dimension. Kinematics, balances of mass, momentum and energy, jump conditions, constitutive theory. Applications include linear and nonlinear elasticity; elastic wave propagation in bars; Euler buckling; calculus of variation, heat conduction in bars. Student may contact instructor for additional information.

AEM 4595 Problems in Mechanics and Materials
(Sec 001); max crs 6; 6 repeats allowed; prereq—dept consent; 1-3 cr
Instructor: STAFF
Topics of current interest. Individual projects with consent of faculty sponsor.

AEM 4602W Aeromechanics Laboratory
(Sec 001); prereq—IT upper div or grad, 4201, 4501, 4601, EngC 1011 or equiv; meets CLE req of Writing Intensive; 4 cr
Instructors: Longmire, Ellen K !!**New Young Investigator Award** NSF!!; Marusic, Ivan
(Writing Intensive Course) Experimental methods and design in fluid and solid mechanics. Wind tunnel and water channel experiments involving flow visualization, pressure, velocity, and force measurements. Experimental measurement of stresses, strains, and displacements in solids and structures, including stress concentrations, aerospace materials behavior and structural dynamics. Computerized data acquisition and analysis, error analysis, data reduction techniques. Experimental design, wirtten and oral lab reports required.

AEM 4821 Aerospace Engineering and Mechanics Honors Thesis I
(Sec 001); prereq—upper div AEM honors student, dept consent; 3 cr
Instructor: STAFF
Individual projects under the direction of a member of the AEM faculty.

AEM 4822W Aerospace Engineering and Mechanics Honors Thesis II
(Sec 001); prereq—upper div AEM hohors student, dept consent; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
Individual projects under the direction of a member of the AEM faculty. Writing intensive.

Aerospace Studies
3 Armory 612-624-2884

Air 1000 Leadership Laboratory
(Sec 001, 002); S-N only; 1 cr
Instructor: Vandewiele, Jerry Jon
Cadets not on scholarship, completed cadets, and those students who would like to learn more about Air Force ROTC may take the course for 0 credits. Air Force customs and courtesies, drill and ceremonies, military commands, the environment of the Air Force Officer, and learning about the areas of opportunity available to commissioned officers. Interviews, guidance and information to increase the understanding, motivation, and performance of other cadets. Offers civilians a chance to see if the Air Force is a career they might enjoy. Offers cadets opportunities, challenges, and training to ensure they become the worlds best officers. This course has no pre-requisites.

Air 3301 Air Force Leadership, Quality, and Communication
(Sec 001); A-F only; 3 cr
Instructor: STAFF
AS 3301 is a study of leadership, quality management, fundamentals, and communication skills required of an Air Force junior officer. Case studies are used to examine Air FOrce leadership and management situations as means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory (cadets only) complements this course by providing advanced leadership experiences in officer-type activities, and gives the students an opportunity to apply leadership and management principles taught in this course. Target audience in first semester meet juniors.
Class time: 45% lecture, 30% discussion, 15% Video tapes
Work load: 30 pages of reading per week, 3 tests, 2 oral presentations
Grade: 20% written reports/papers, 40% quizzes, 20% in-class presentations, 20% class participation, 40% tests
Exam format: Multiple choice, T/F, short answer

Air 3401 National Security Policy
(Sec 001); A-F only; 3 cr
Instructor: STAFF
AS400 examines the national security process, regional studies, Advanced leadership ethics, Air Force doctrine, and military justice. Special topics of interest focus on the military as a prfession, offecership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. A Leadership Laboratory complements this course by providing advanced leadership experiences, giving the students the opportunity to apply the leadership and management principles of this course. Target audience is first semester seniors preparing to enter active duty as commissioned Second Lieutenants in the US Air Force. Classes are a combination of lecture and guided discussion. Class time: 50% lecture, 30% discussion, 20% student briefings. Work load: 70 pages of reading per week, 2 exams, 3 papers, 2 oral presentations. Exam format: essay, short answer, matching.
Class time: 50% lecture, 30% discussion, 20% student briefings
Work load: 70 pages of reading per week, 6 pages of writing per semester, 2 exams, 3 papers, 2 oral presentations
Grade: 25% mid-semester exam(s), 25% final exam, 30% written reports/papers, 20% in-class presentations
Exam format: essay, short answer, matching

Afro-American Studies
808 Social Sciences Tower 612-624-9847

Afro 1021 Introduction to Africa
(Sec 001); meets CLE req of International Perspect Theme; 3 cr
Instructor: Coifman, Victoria Bomba
This course provides a beginning overview of the African continent. We will explore its diversity through the findings of the disciplines of Geography, Archaeology, History, Anthropology and Literature. We will examine too, current economies and politics, which are of major concern today. Like residents of the rest of the world, African peoples have been confronted with accelerating changes in the last five hundred years. The period of the Atlantic slave trade (sixteenth to nineteenth centuries) and the Indian Ocean slave trade, were followed by the era of European colonial rule from the late nineteenth century to the early 1960s (for most of Africa). The major political and economic shifts imposed in these times, were left to new African governments and their people, as an increasingly heavy heritage in the post-colonial era. The political and more seriously, probably, the economic hopes of independence, have been unmet for a variety of reasons. Life for most people of the continent has been growing increasingly difficult and minimum needs of millions are not being met. It is on this note that the course ends—very much a reflection of the late 1990s.
Class time: 50% lecture, 50% discussion
Work load: 35 pages of reading per week
Grade: 33% mid-semester exam(s), 33% final exam, 33% written reports/papers

Afro 3072 Racism: Social and Psychological Consequences for Black Americans
(Sec 001); 3 cr
Instructor: Barner, Pearl
This course is purposed for junior and senior undergraduate students to enhance their understanding of the phenomenon of Racism, particularly its impact on African Americans. Cognitive approaches will be utilized to help students expand their knowledge of the historical and cultural underpinnings of the concept of racism and its various forms. Experential activities are added to further illuminate the consequences of race. "Prejudice and Racism" (2nd ed.) by James Jones (1997) is the primary text and lectues will be pulled from additional sources.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 2 exams, Class presentation
Grade: 20% mid-semester exam(s), 40% final exam, 13% written reports/papers, 13% in-class presentations, 13% class participation
Exam format: Multiple choice and essay

Afro 3141 Africa
(Sec 001); Credit will not be granted if credit has been received for: GEOG 3141; meets CLE req of Environment Theme; meets CLE req of International Perspect Theme; 3 cr
Instructor: Scott, Earl P
This course introduces students to the human and environmental diversity of Africa and examines the effects of internal and external forces on the spatial organization of African economies and societies. Geographic (case) studies are used to discuss important developmental issues, which reflect modern trends and gender conditions. The method is to examine selected topics and themes in depth rather than to present general pictures of individual nations. The course focuses on two broad themes: Man-Environment relations (as reflected in built landscapes) and Political and Economic Transformations, especially the rise of democracies and free market economies. The selected sample of topics and themes is representative of the African continent, but greater attention is given to regions south of the Sahara. The course Geog 3141 is cross-listed with Dept of Afro-American and African Studies.

Class time: 90% lecture, 10% computer-based project and class presentation
Work load: 20 pages of reading per week, 15 pages of writing per semester, 4 exams, 1 papers
Grade: 20% mid-semester exam(s), 40% final exam, 20% written reports/papers, 20% quizzes
Exam format: Multiple choice

Afro 3301 The Music of Black Americans

(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: Williams, Yolanda Y
This course traces the musical contributions of African-Americans from West Africa through the many forms found in American music, i.e., Jazz, Rock and Roll, Blues, Rhythm and Blues, Gospel, Spirituals, etc. Class instruction will consist of lecture demonstrations, videos, listening and class discussion. A course suitable for non-musicians and music majors alike. Grading will be based on quizzes, concert critiques, and final exam.
Class time: 50% lecture, 25% discussion, 25% listening/videos
Work load: 20 pages of reading per week, 12 pages of writing per semester, 3-4 papers, 4 exams (3 quizzes, 1 final)
Exam format: multiple choice and true/false

Afro 3334 Black Women: Interdisciplinary Perspectives

(Sec 001); 4 cr
Instructor: Brewer, Rose Marie **!!Morse Alumni Award!!**
This course is a critical analysis of Black women in the United States with connections to the African diaspora. Family and work, community and interpersonal relations, culture, health, and social change are key areas we address. We will use the analytical framework of race, class, gender, and culture to understand the position of African-American women. In addition, a number of interdisciplinary perspectives are employed as conceptual frameworks for the course: sociological, political-economic, and humanistic. Importantly, the issues of Black feminism and Black feminist theory are examined. Films, tapes, discussion, group work, student presentations, and lectures are the organizational core of the course. You will be teamed with other members to form a small group writing team. Over the semester, you will read and respond to one another's writing. Your research team also serves as you small group for class discussion and class facilitation. Writing will include several short in-class writing, short papers, and a reflective paper due at the end of the semester. One draft is required before each paper is submitted.
Class time: 50% lecture, 25% discussion, 25% small group work; writing workshop
Work load: 75-100 pages of reading per week, 40 pages of writing per semester, 2 exams, 4 papers—includes, drafts and redrafts; 1 final writing project
Grade: 25% mid-semester exam(s), 25% final exam, 30% written reports/papers, 10% class participation, 10% , final writing paper
Exam format: Short answer, essays, concepts

Afro 3591W Introduction to African American Literature

(Sec 001); Same as: ENGL 3591W; Credit will not be granted if credit has been received for: ENGL 3591W; meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Wright, John Samuel **!!Morse Alumni Award!!**
African Americans are "America's metaphor", Richard Wright conjectured, posing both a riddle and a riff. He hinted that we might find in the shadows of American literary life our brightest mirrors, & thereby see ourselves, and the paradoxes/potentialities of our national experience, through the world of words and images conjured up over the past 2 centuries by African American writers. From its own vantage point in American cultural space & time, the African American literary imagination has tended to see life as a succession of trials/oppositions/bittersweet joys in a chaotic & capricious moral universe where, Frederick Douglass wrote, "reason is imprisoned and passions run wild." Logic, beauty and justice have been inverted or overthrown here; and black heros/heroines wear masks in order to reveal themselves, learn in order to defy their teachers, sin in order to be sanctified, act old when young, are treated as children when adults, are freed in order to be re-enslaved, become invisible in order to be seen, hate in order to love, kill in order to create, and die in order to live. This course takes us from the earliest African American literary works—18th & 19th century slave autobiographies, folkore, abolitionist essays and orations and poems—to 20th century literature marked by startling diversity and modernist innovation, by growing critical acclaim, and by politico-aesthetic movements such as the Jazz Age Harlem Renaissance and Black Arts Movement of the 1960s.
Class time: 65% lecture, 25% discussion, 10% Film
Work load: 150 pages of reading per week, 3 short papers, 1 research paper, 4 or 5 short quizzes
Grade: 10% quizzes, 20% each on short essays; 30% on research paper

Afro 3592 Introduction to Black Women Writers in the United States

(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; 3 cr
Instructor: Reyes, Angelita Dianne **!!Morse Alumni Award!!**
This course presents an introduction to basic issues in literature and culture by women of African descent in the United States. The readings will reflect historical, cultural and contemporary perspectives. We will look at the ways women of African descent give meaning to their lives and history through literature and cultural artifacts. Using the intersections of ethnicity, gender, and class, we will explore selected novels, essays, short stories, slave narratives, contemporary autobiography and other forms of creative fiction and non-fiction. Some readings will be available on reserve from Wilson Library. Everyone is welcome to this course.
Class time: 45% lecture, 5% cctv, 40% discussion, 10% Group break-out sessions
Work load: 50-75 pages of reading per week, 15-20 pages of writing per semester, 3 exams, 1-2 papers, Research project or research paper
Grade: 25% mid-semester exam(s), 20% special projects, 20% quizzes, 15% in-class presentations
Exam format: Short answer essay questions

Afro 3910 Topics in Afro-American and African Studies

(Sec 005); max crs 9; 3 repeats allowed; 3 cr
Instructor: Russell, Wynfred
This course is designed to help students get a deeper grasp into the present political, economical, environmental, health, and cultural issues of the African continent. It will allow students to better assess the current and future problems affecting the continent, and how events in Africa might affect their own well-being. The course is intended to introduce students ot the distinctive and complex features of contemporary Africa. We will analyze Africa against the backdrop of the AIDS epidemic, ethnic and civil conflicts, debt crisis, as well as strategies that African people, their governments, and non-governmental organizations (NGO) are implementing to combat these crisis. The course will aso examine the rise of the middle class in sub-saharan Africa, post-colonial legacies, population as a political and social issue, and rural to urban migration. The course is designed to attract undergraduate students majoring or minoring in international relations, history, politcal science, comparative literature, as well as those interested in African studies.
Class time: 40% lecture, 10% cctv, 50% discussion
Work load: 25 pages of reading per week, 10 pages of writing per semester, 2 exams, 2 papers
Grade: 20% mid-semester exam(s), 20% final exam, 25% written reports/papers, 10% special projects, 10% quizzes, 5% in-class presentations, 10% class participation
Exam format: A mixture of multiple choice and essay

Afro 3910 Topics in Afro-American and African Studies: Zamani: East Africa From Past

(Sec 006); max crs 9; 3 repeats allowed; 3 cr
Instructor: Wagner, Michele Diane
Climbing Mount Kilimanjaro? Safari in Kenya? Beach combing on Zanzibar? Many visitors go to East Africa each year and return home "knowing"about the region. They visit historical sites, read the guidebooks, snap rolls of photos, and suddenly become African "experts." This course explores the "knowledge" that is commonly reproduced about East Africa's past and present. It examines how and when these "facts" originated, why they have been propagated, what they mean: the politics of "knowledge." What do contemporary historians understand about the East African past? How does this understanding of the past shed light on the present?
Class time: 33% lecture, 33% discussion, 33% activities
Work load: 100 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 4 papers, possibility of special projects to replace paper/exam
Exam format: essay

Afro 4302H Honors: Women's Personal Narratives

(Sec 001); meets HON req of Honors; 3 cr
Instructor: Reyes, Angelita Dianne **!!Morse Alumni Award!!**
In this course we will explore the ways in which non-Western women and women of color give meaning to their lives through formal autobiographies and informal life story-telling. With a focus on gender, race, ethnicity and class, well discuss and learn about the dynamics of women's personal narratives. Our objectives will include: 1) the relationship between per-

sonal narratives and historical contexts 2) explorations of vastly (seemingly) different strategies for telling the life 3) theoretical approaches to formal and informal autobiography 4) additional perspectives for reading and theorizing personal narratives 5) the dynamic and timely role of memory and memoire (This is a topic that I am particularly interested in and welcome students to discuss their own involvement and interest in the unique tensions that occur between history and memory). This is a seminar.
Work load: undergraduates—20 pp research paper; graduate students—25-30 pp research paper
Grade: 50% written reports/papers, 25% in-class presentations, 25% , research paper proposal

Afro 5072 Racism: Social and Psychological Consequences for Black Americans
(Sec 001); 3 cr
Instructor: Barner, Pearl
This course is purposed for graduate students interested in enhancing their understanding of the phenomenon of Racism, particularly its impact on African-Americans. Cognitive approaches will be utilized to help students expand their knowledge of the historical, cultural and psychological underpinnings of the concept of racism and its various forms. Experential activities are added to further illuminate the consequences of race. "Prejudice and Racism" (2nd ed.) by James Jones (1997) is the primary text and lectures will also be drawn from other sources.
Class time: 35% lecture, 40% discussion, 15% Presentations
Work load: 50 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers
Grade: 20% mid-semester exam(s), 40% final exam, 13% written reports/papers, 13% in-class presentations, 13% class participation
Exam format: Multiple choice and essay

Agricultural Engineering Technology

Biosystems & Agricultural Engineering: 612-625-7733

AgET 5095 Special Problems in Biosystems and Agricultural Engineering
(Sec 001); max crs 5; prereq—instr consent; 1-5 cr
Instructor: STAFF
Student may contact the instructor or department for information.

AgET 5203 Environmental Impacts of Food Production
(Sec 001); 3 cr
Instructor: Goodrich, Philip R
Topics include crop production intensity, biodiversity, animal raising options, sustainable agriculture, food processing waste alternatives, and pest control. Course objectives/outcomes: This course will appeal to students who want to gain an appreciation of the impact food production pursuits have on the global environment. These students will be from many backgrounds. Many may have limited contact with modern food production and most will have little understanding of the subsistence agriculture which is practiced in many areas of the world. Because the life cycle is modified by living plants, the impact of food production changes climate and the environment of the world. After taking this course, the students will be able to describe the impact of at least five different types of agriculture on the environment of the globe. The student will be able to critically evaluate one case study of food production and prepare alternative options which would minimize the impact of the situation.
Class time: 5% lecture, 5% discussion, 90% Web-based learning
Work load: 40 pages of reading per week, 10 papers, Homework—1 per week
Grade: 90% written reports/papers, 10% class participation
Course URL: www.bae.umn.edu/~aget5203

AgET 5212 Safety and Environmental Health Issues in Plant and Animal Production and Processing
(Sec 001); A-F only; prereq—Grad student or [jr or sr] in [COAFES or IT or education or public health or nursing]; meets CLE req of Environment Theme; meets HON req of Honors; 3 cr
Instructor: Shutske, John M
This course examines key safety and health concerns and outcomes in food production, processing, horticultural, and related manufacturing environments. Specific topics include traumatic injury, ergonomics, airborne contaminants/respiratory disease, acute and chronic pesticide health effects, biotechnology, and environmental impacts related to animal production. The primary emphasis is on exposures to workers engaged in food and other related occupations, but potential impacts on public health are also discussed. Key frameworks related to disease and injury prevention and control are imbedded into the course's structure and are explored through in-class and on-line discussion and debate. These include: public health epidemiological model (which considers host, agent, and environmental interactions); the "3-E's" of prevention (engineering, enforcement, and education); and the safety hierarchy.
Class time: 70% lecture, 30% discussion
Work load: 35 pages of reading per week, 15 pages of writing per semester
Grade: 35% mid-semester exam(s), 30% final exam, 15% written reports/papers, 5% special projects, 15% class participation
Exam format: Short answer, essay, multiple choice, problem solving
Course URL: www.bae.umn.edu/fs

Agricultural, Food, & Environmental Educ

325 Vocational & Technical Educ Bldg: 612-624-2221

AFEE 1001 Introduction to Agricultural Education and Extension
(Sec 001); 1 cr
Instructor: Joerger, Richard M
Through the use of teacher-directed and learner-centered instructional strategies, learners will examine the framework of agricultural education with a special emphasis on the nature of the programs, career opportunities, and the qualifications and preparation requirements of future agricultural educators. This couse is designed primarily for undergraduate students interested in exploring career opportunities in the field of Agricultural Education. Student outcomes include the ability to : (a) select appropriate strategies for learning that reflect a personal learning preference; (b) describe the nature of teaching and learning; (c) demonstrate personal interest and commitment to pusuing a career in agricultural education; (d) discuss the major legislative and historical events in the history of career and technical education; (e) develop a personal undergraduate program of study by selecting and planning a program of study within an appropriate emphasis area; (f) articulate a clear understanding of the nature, history, and philosophies that support agricultural education; (g) strengthen appreciation of the types and value of using alternate forms of instructional media and aids; (h) discuss the service areas within the field of career and technology education; and (i) discuss the purposes and general activities of the professional organizations within agricultural education.
Class time: 100% discussion
Work load: 10 pages of reading per week, 2 exams, 1 papers
Grade: varies by semester
Exam format: multiple choice, matching, essay

Agriculture

120 Biosystems & Agricultural Engineering: 612-624-7254

Agri 1910W Freshman Seminar: Topics
(Sec 001); A-F only; prereq—Fr with no more than 36 cr; meets CLE req of Writing Intensive; 2 cr
Instructors: Foster, Douglas N; Ponce de Leon, F. Abel
ANIMAL BIOTECHNOLOGY: The design of this freshman seminar course is to guide students in how to think, critically evaluate and write about the latest scientific developments in the emerging field of animal biotechnology. Students will be expected to focus on improving their writing skills via discussion and peer review. The class will be divided into three groups of five students each. Each group will present and coordinate materials sufficient for two lectures in their particular emphasis area, which means that class participation is mandatory. Emphasis areas include: 1. Recombinant DNA Methodologies; 2. Transgenic Animals and Applications; and 3. Ethical Issues in Animal Biotechnology. Reading materials for the course will be handed out during class as needed. Instructorssss will guide students as to the best sources for obtaining information for their presentations and papers. Grading will be based on oral presentations of each group (25%) and three written papers (minimum of 5 pages each) that each student will develop from each of the three emphasis areas (75%). There will be two separate non-graded laboratory experiences involving current DNA methodologies.
Class time: 20% lecture, 80% discussion
Work load: 30 pages of reading per week, 10 pages of writing per semester, 0 exams, 0 papers
Grade: 70% written reports/papers, 30% class participation
Exam format: no exams

Agri 3000 Seminar in International Agriculture
(Sec 001); max crs 8; 3 repeats allowed; A-F only; prereq—instr consent; 2 cr
Instructor: STAFF

Oral presentations and discussions of students' research papers, literature review of selected topics, and discussions with students and staff about their experiences in international agriculture. Typically for COAFES undergrads, but is open to anyone. Requires faculty approval to register.
Class time: 100% discussion
Work load: amount of work and nature of projects negotiated with faculty
Grade: 80-90% written reports or papers; 10-20% presentations

Agri 3100H Honors Experience

(Sec 001); max crs 3; A-F only; prereq—Approved proposal by COAFES honors program committee; 2-3 cr
Instructor: STAFF
The Honors Experience is a required portion of the College of Agriculture Honors program. Individuals work with a faculty mentor and define an Honors Experience to be completed. Registration is limited to College of Agriculture Honors Students. Students must have prior approval from the Honors Committee. The approval requires submitting an Honors Experience proposal to the Honors Committee.
Class time: 50% lecture, 50% discussion
Exam format: Essay.

Agronomy and Plant Genetics

411 Borlaug Hall; 612-625-7773

Agro 1101 Biology of Plant Food Systems

(Sec 001); meets CLE req of Biological Sciences/Lab Core; meets CLE req of Environment Theme; 4 cr
Instructor: Smith, Kevin Paul
This course is designed for students who are not in a life science program, but who wish to acquire a better understanding of biology as it relates to their lives. This course fulfills the University's CLE requirement for a biology course with lab. Using a problem-based learning approach, students will investigate fundamental concepts including the chemical basis of life, the nature of inheritance, and functions of ecosystems. Students will work in small groups to research problems related to food and nutrition, the use of gene technology in food systems, and environmental concerns arising from food production practices. Students will design and propose solutions to problems, present their analysis and participate in evaluation of proposed solutions. Hands-on investigations in the laboratory and a greenhouse project are designed to enhance students understanding of concepts, encourage intellectual curiosity and promote understanding of science as a process of learning. Course outcomes are knowledge of biological concepts, skills in complex problem analysis, and an appreciation for the role of science in society.
Class time: 35% lecture, 20% discussion, 45% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 2 papers, problem solving assignments
Grade: 15% mid-semester exam(s), 15% final exam, 20% written reports/papers, 35% lab work, 15% problem solving
Exam format: Essay, short answer, multiple choice
Course URL: agro.agri/umn.edu/courses/agro1101

Agro 1103 Crops, Environment, and Society

(Sec 001); meets CLE req of Environment Theme; 4 cr
Instructor: Sheaffer, Craig Charles
Learn about crop plants that are important to our society, their history, and how they are improved and cultured. Discuss currently important topics such as genetic engineering of plants, food safety, water quality, organic agriculture, and species preservation.. In a laboratory, learn about how plants grow, and about food products derived from plants. This course is intended for undergraduate majors and non-majors interested in a general understanding of food and fiber production from crop plants. In the class, we use several approaches to learning, such as case studies, and minimize lecturing. We promote discussion by viewing videos and reviewing recent newspaper and magazine articles.
Class time: 30% lecture, 40% discussion, 20% laboratory, 10% Problem solving
Work load: 10 pages of reading per week, 3 exams, 3 papers
Grade: 40% mid-semester exam(s), 20% final exam, 20% lab work, 20% problem solving
Exam format: Short answer

Agro 2104 Grain and Seed Technology

(Sec 001); prereq—[1103, ApEc 3411] recommended; 1 cr
Instructor: Cardwell, Vernon Bruce **!!COAFES Distinguished Teaching Award; Morse Alumni Award!!**
Practice and principles of grain grading; factors influence U.S. grain grades and their importance in affecting market value and subsequent use. Course is intended for undergraduates interested in grain using Federal Grain Grading Standards and the related potentail uses of crops based on grade. Course is laboratory oriented with limited lecturing.
Class time: 30% lecture, 62% laboratory, 8%
Work load: 3-5 pages of reading per week, 3 exams, 6 problem sets, 8% tour and visit to Minneappolis Grain Exchange and State Grain Inspection Service.
Grade: 33% mid-semester exam(s), 33% final exam, 9% class participation, 25% problem solving
Exam format: Practical, essay

Agro 4103 World Food Problems

(Sec 001); Same as: APEC 4103, FSCN 4103; prereq—DVM or ag or nutr sci or soc sci or grad or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; 3 cr
Instructors: Hardman, Leland L; Senauer, Benjamin H; Schafer III, Henry William
This course provides of a multi-disciplinary look at problems that exist between population, food supply, hunger and resource sustainability. The basics of food production, nutrition and food safety are discussed. Lectures, readings, and small group discussions are used to show the conflicting views on education and development assistance strategies and the role of science and technology as they encounter the cultural and ethical values of people in the various countries of the world. The course emphasizes the critical roles of government officials, international assistance agencies, international research and outreach centers, and the private business sector in finding solutions to these complex problems. Students can enroll in any of the three cross-listed courses (Agro 4103, ApEc 4103 or FScN 4103). Previous background in any of the disciplines is not required, but because it is an upper division course, students are expected to develop advanced level presentations and assignments.
Class time: 60% lecture, 25% discussion, 15% Videos, slide sets, tapes, etc.
Work load: 30-40 pages of reading per week, Weekly homework assignments
Grade: 30% , final paper; 70% weekly homework assignments

Agro 4605 Management Strategies for Crop Production

(Sec 001); prereq—Jr or sr or grad student with program committee approval; 4 cr
Instructor: Hardman, Leland L
This course examines the many issues that influence the adoption of research-based management technologies for producing crops in Minnesota. The course utilizes lectures, discussions, readings, problem solving assignments and laboratory exercises. Readings and lecture/discussions describe the attitudes and life-styles of practitioners of conventional, precision, sustainable and organic agriculture. The course emphasizes that research-based data from the various climatic and soil regions of Minnesota are needed, regardless of the producer's management philosophy. Significant changes in crop management strategies over time are examined and the reasons for adoption or rejection of newer practices are presented. Topics include: crop establishment practices (rates, dates, and methods of seeding), benefits of rotations, best farm nutrient management practices (organic and inorganic methods), weed biology and management (chemical and non-chemical methods), advantages and disadvantages of new or alternative crops, and yield protection strategies to assure crop quantity and quality. Information is discussed in units specific for row crops (corn, soybeans, edible beans, sugar beets), small grains (wheat, oats, barley, rye, etc.), and forages (machine harvested as well as grazing systems). This course is designed for upper division undergraduates, as well as graduate students.
Class time: 75% lecture, 25% laboratory
Work load: 30-40 pages of reading per week, 2 exams, Periodic homework and laboratory reports
Grade: 25% mid-semester exam(s), 25% final exam, 10% quizzes, 25% lab work, 15% problem solving
Exam format: Short essay requiring rote memory and recollection from assigned readings. Some of the questions req

Agro 4660 Senior Capstone: Leadership, Decision Making, and Problem Solving

(Sec 001); A-F only; prereq—4096 or ScAg 4009 or instr consent; 2 cr
Instructors: Simmons, Steve Robert **!!COAFES Distinguished Teaching Award; Morse Alumni Award!!**; Porter, Paul M
This "capstone" experience is for students nearing the end of their undergraduate studies with a level of professional expertise and maturity. The course focuses on critical thinking, problem solving, decision making and leadership within the context of agriculture and natural resources. The course includes opportunites to interview established leaders in various positions within the agricultural and university communities. The students

will also work through decision cases and other exercises that enhance their problem-solving, decision making and leadership skills.
Class time: 100% discussion
Work load: 10 pages of reading per week, 10-15 pages of writing per semester, 0 exams, 5 papers, One oral presentation; field trip
Grade: 60% written reports/papers, 25% class participation, 15%, Oral presentation

Agro 4888 Issues in Sustainable Agriculture
(Sec 001); prereq—1103, Soil 1125 or 2125 or equiv; 2 cr
Instructor: Sheaffer, Craig Charles
A course for undergraduate students that studies the complexities of a sustainable agriculture. We will study the social, economic, political and environmental aspects of a sustainable agriculture. Specific topics can include: the history of agriculture and the family farm, government farm policy, the importance of biodiversity for healthy landscapes, rural communities, quality of life, community supported agriculture, organic agriculture, landscape health and non-profit organizations. Teaching approaches will include decision case studies; student, faculty and producer-led discussions. The course will include on-farm visits. Target audience: non-majors and majors interested in sustainable agriculture.
Class time: 5% lecture, 95% discussion
Work load: 10 pages of reading per week, 10 pages of writing per semester, 2 exams, 4 papers
Grade: 30% written reports/papers, 30% in-class presentations, 10% class participation, 30% problem solving

Agro 5021 Introduction to Plant Breeding
(Sec 001); prereq—GCB 3022 or equiv, background in plant science; 3 cr
Instructor: Ehlke, Nancy Jo
The course is intended for graduate students across a broad range of disciplines in the plant sciences who will benefit from a basic understanding of how genetics is applied to plant improvement. The course will cover breeding methods for self-pollinated, cross-pollinated, and asexually propagated crops and include discussions of sustainable production scenarios and current biotechnology advances.
Class time: 80% lecture, 20% discussion
Work load: 10 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 project
Grade: 40% mid-semester exam(s), 30% final exam, 10% written reports/papers, 10% special projects, 10% class participation
Exam format: Combination of multiple choice, true/false, short answer and essay
Course URL: www.agro.agri.umn.edu/agro5021

American Indian Studies
2 Scott Hall 612-624-1338

Amin 1001 Indigenous Peoples: an American Perspective
(Sec 001, 008); meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; 3 cr
Instructor: STAFF
This course is intended to give students a general overview of the contemporary and historic experiences of American Indian peoples in the United States and Canada. It challenges the dominant culture's stereotypes and its unthinking assumptions about American Indian people in the past and present. It shows how the peoples of America's First Nations engaged the presence and representations of foreigners in their midst through acts of resistance, rebellion, accommodation, and innovation. In the process, it illustrates the great diversity of tribal cultures and histories in North America, and it gives evidence of this in the areas of identity, work, philosophy, politics, society, language, religion, literature, and the arts.
Class time: 10% lecture, 30% cctv, 60% discussion
Work load: 50 pages of reading per week, 12—15 pages of writing per semester, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation

Amin 1002 Indigenous Peoples: A Global Perspective
(Sec 001); Credit will not be granted if credit has been received for: POL 1019; A-F only; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 3 cr
Instructor: Wilkins, David E
This course focuses on the social, cultural and political relationship between selected indigenous peoples and the nation-states that settled in their territories and explores the various ways these states attempted to exterminate, incorporate, and segregate the native peoples they encountered. This class can be taken as an American Indian Studies course or a Political Science Studies course. It has been cross-listed. This course fulfills CLE requirements of Social Science core and International Perspective Theme.

Amin 1101 Beginning Ojibwe I
(Sec 001); 5 cr
Instructor: Jones, Dennis
Acquisition of Speaking Skills, fundamentals of grammar and writing systems. This course is taught as a beginning level class and no previous experience is needed. The skills of listening and speaking in the Ojibwe language are emphasized with daily oral drills as the basic content of the class. The final exam is an oral speech that is delivered based on the classroom drills.
Class time: 100% discussion
Work load: 2 exams, 1 papers, oral classroom participation
Grade: 10% written reports/papers, 40% quizzes, 40% class participation, 10%, attendence
Exam format: Essay; questions and answers in Ojibwe

Amin 1121 Beginning Dakota I
(Sec 001); 5 cr
Instructor: STAFF
The basics of the Dakota language with emphasis on spoken Dakota (reading and written knowledge of the language being secondary). Focus is on the "D" dialect of the Dakota (Sioux). Language topics to be covered include history and culture.

Amin 1908W Freshman Seminar: American Indian Studies After Wounded Knee
(Sec 001); max crs 6; A-F only; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Child, Brenda J
The events of December, 1890 have long been written as the final chapter of American Indian history. By 1890, most American Indians were living on reservations and some had witnessed the end of warfare between tribes and the United States. This course will consider the important years in American Indian history after Wounded Knee through analysis of the assimilation movement, the policy of land allotment, boarding school experiences, Great Lakes and Plains economies and cultures, World War Two, emergence of what some have termed the "new buffalo" of tribal gaming. Through reading, lectures, documentary films, discussions, and a visit to the Minnesota History Center, students will be introduced to the idea that Indian history must be presented as a national and as a regional and local story.

Amin 3103 Intermediate Ojibwe I
(Sec 001); prereq—1101, 1102; 5 cr
Instructor: Jones, Dennis
Improving speaking skills, grammatical stuctures, storytelling, oral history and translation projects.
Class time: 100% discussion
Grade: 10% mid-semester exam(s), 20% final exam, 40% quizzes, 30% class participation
Exam format: essay

Amin 3123 Intermediate Dakota I
(Sec 001); prereq—1122; 5 cr
Instructor: STAFF
Further study of the Dakota language with emphasis on spoken Dakota.

Amin 3201W American Indian Literature
(Sec 001-003); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Miller, Carol A **!!Morse Alumni Award!!**
This upper division undergraduate course offers a fundamental knowledge of the literary production of selected contemporary American Indian writers. Beginning with oral traditions and moving on to contemporary print-language narratives, we will focus on issues of representation and on themes and purposes central in the work of a selection of American Indian writers, studied within the particular cultures and histories they portray.
Class time: 40% lecture, 40% discussion, 20% Small group work and in-class writing
Work load: 100 pages of reading per week, 20-25 pages of writing per semester, 1 exams
Exam format: Essay

Amin 3301 American Indian Philosophies
(Sec 001, 002); meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: STAFF
The purpose of this course is to introduce students to the philosophical thought and spiritual beliefs of native peoples of North America. Students

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

AmIn 3401 American Indian Art
(Sec 001); meets CLE req of Cultural Diversity Theme; 4 cr
Instructor: Chapman, Jeffrey T
Visual arts depicting rituals, traditions, values and world views of major American Indian populations. This course is designed to aquaint students with American Indian arts from pre-contact to, and including, contemporary Indian arts. It focuses on materials, techniques, symbolism, imagery and traditions that underlie the art forms in various tribal regions of North America. The class will examine the influence of other tribes and also the effect of European immigration.
Class time: 50% lecture, 50% discussion
Work load: 20 pages of reading per week, 8-12 pages of writing per semester, 2 exams, 2 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: essay

AmIn 3501 American Indian Tribal Governments and Politics
(Sec 001); Credit will not be granted if credit has been received for: POL 3701; A-F only; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; 3 cr
Instructor: Wilkins, David E
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 class can also be taken as an American Indian Studies or a Political Science Studies course. It has been cross-listed. This course fulfills CLE requirements of Social Science core and Citizenship and Public Ethics Theme.

AmIn 3701 Ojibwe Culture and History
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Jones, Dennis
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.
Class time: 50% lecture, 50% discussion
Work load: 100 pages of reading per week, 20 pages of writing per semester, 1 exams, 4 papers
Grade: 20% final exam, 40% written reports/papers, 40% quizzes
Exam format: Multiple choice; true/false; and matching

AmIn 3711 Dakota Culture and History
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; 3 cr
Instructor: STAFF
This course focuses on Dakota culture and history. Our emphasis will be on the four bands of the Santee Dakotas; the Mdewakantons, Wahpekutes, Wahpetons, and the Sissetons. 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.
Class time: 10% lecture, 30% cctv, 60% discussion
Work load: 50 pages of reading per week, 15—20 pages of writing per semester, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: Multiple Choice, Essay

AmIn 3713 American Indian Communities of the Great Lakes
(Sec 001); 3 cr
Instructor: Child, Brenda J
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. Fore example, the Monominees 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 righ 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 roles, the introducton 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 thruough discussion of boarding school experiences, environmental change, urbanization, political activism, the strugle for treaty rights, and the emergence of what some have termed the "new buffalo" of tribal gaming.
Class time: 75% lecture, 25% discussion
Work load: 75 pages of reading per week, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: Essay

AmIn 3871 American Indian History: Pre-Contact to 1830
(Sec 001); Same as: HIST 3871; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; 4 cr
Instructor: STAFF
This course explores American Indian history from the pre-contact period to the era of Indian removal in the United States. The approach will be partly chronological and partly thematic. Because of the complexity, diversity, and geographic scope of North American Indian societies to illustrate the particular experiences of some groups. Lectures are designed to complement the readings and documentary films. This course stresses the integrity and viability of American Indian societies and dynamic, self-directed culture change while at the same time recognizing the conflict of cultures that occurred with Native American and Euroamerican contact.

American Sign Language

240 VoTech Building; 612-626-9392

ASL 1701 American Sign Language I
(Sec 001-008); 4 cr
Instructor: STAFF
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
(Sec 001-008); prereq—1701 or instr consent; 4 cr
Instructor: STAFF
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
(Sec 001-007); prereq—1702 or instr consent; 4 cr
Instructor: STAFF
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
(Sec 001-006); prereq—3703 or instr consent; 4 cr
Instructor: STAFF
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 cultural behavior rules. (SP-ASL 1703 or instructor approval)

ASL 3705 Cultural Perspectives of Deafness
(Sec 001); 2 cr
Instructor: STAFF
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.

ASL 5642 Classroom Communication Through ASL
(Sec 001); max crs 5; 5 repeats allowed; S-N only; prereq—Fluency in ASL, instr consent required; 2 cr
Instructor: STAFF
American Sign Language form/function, vocabulary production, grammatical features needed by professionals working with children, storytelling strategies, technical sign language for classroom teachers. Content progresses in repeated segments. (SP-ASL proficiency; instructor consent required).

American Studies

314 Scott Hall 612-624-4190

AmSt 1001 American Popular Arts and Public Life, 1900-1940
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: Noble, David W !!**CLA Distinguished Teaching Award; Morse Alumni Award!!**
The purpose of this course is to introduce you to the interactions between several cultures of the United States and how those encounters shaped the national identity. Until the 1960s Anglo-American males monopolized the term "American" for themselves. The study of "American" history, literature and the arts was done by male Anglo-American scholars who made themselves the object of their studies. Since the 1960s this monopoly has collapsed in the area of education, and this course reflects a dramatic rethinking of the history and cultures of the United States, and its history engages all of us, students and teachers, in asking new questions and pursuing new information. We will look at this dialogue between cultures as it was expressed in vaudeville, movies, the radio, novels and plays between 1900 and 1940. We will explore the similarities and differences between the values expressed in popular culture and those expressed in politics.
Class time: 66% lecture, 33% discussion
Work load: 20 pages of writing per semester, 2 exams, 4 papers
Grade: 25% mid-semester exam(s), 30% final exam, 25% written reports/papers, 20% class participation
Exam format: Essay

AmSt 1907W Freshman Seminar: Honors: The Legacy of the Cold War in America
(Sec 001); max crs 6; A-F only; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: May, Elaine Tyler !!**CLA Dean's Medal!!**
This course will examine the culture of the Cold War as it developed in the years after World War II, how it affected and reflected the domestic politics, public policies, and civic life in the postwar era, the impact of domestic anti-communism, and the relationship between the Cold War and the lives of ordinary Americans. We will examine the changing nature of citizenship during the last half of the 20th century, particularly as it related to gender expectations, sexuality, class relations, racial justice and civil rights. We will examine sources from the popular culture, political debates, family patterns, changing roles for women and men, the growth of the suburbs, and the civil rights movement. The course will trace the culture of the Cold War from the consensus decade of the 1950s, through the upheavals and social movements of the 1960s and 1970s, to the Reagan era of the 1980s, and the years after the demise of the Soviet Union. We will consider the legacy of the Cold War during the 1990s, as well as the shadow it cast over the events and aftermath of September 11, 2001. Students will write in-depth papers and work with writing partners to develop their written work.
Class time: 10% lecture, 90% discussion
Work load: 0 exams, Weekly readings and writing assignments

AmSt 1908W Freshman Seminar: After Wounded Knee: Am Indians in 20th Century
(Sec 002); A-F only; prereq—Fr or no more than 36 cr; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Child, Brenda J
The events of December, 1890 have long been written as the final chapter of American Indian history. By 1890, most American Indians were living on reservations and some had witnessed the end of warfare between tribes and the United States. This course will consider the important years in American Indian history after Wounded Knee through analysis of the assimilation movement, the policy of land allotment, boarding school experiences, Great Lakes and Plains economies and cultures, World War Two, emergence of what some have termed the "new buffalo" of tribal gaming. Through reading, lectures, documentary films, discussions, and a visit to the Minnesota History Center, students will be introduced to the idea that Indian history must be presented as a national and as a regional and local story.

AmSt 3001 Introduction to Asian American Studies
(Sec 001); 3 cr
Instructors: Choy, Catherine C; Lee, Josephine D
This course introduces undergraduate students to Asian American Studies, a field of inquiry that deals with the history, cultural productions, and contemporary concerns of Americans of Chinese, Japanese, Korean, South Asian, Filipino, and Southeast Asian ancestry. Students will be asked to look at Asian American communities from a variety of scholarly perspectives. This course fulfills the CLA cultural diversity requirement.

AmSt 3111 American Cultures and the Arts
(Sec 001); 3 cr
Instructor: Ferguson, Roderick A
This course is designed to teach students how to look at art to see the racialized, classed, gendered, and sexualized workings of U.S. nationalism. It uses art to trace the history of U.S. imperialism and racial domination. It asks how U.S. nationalist art produced racial others and eventually (as well as, ironically) gave birth to multiple "Americas." To address that multiplicity, the course devotes much of its attention to the production of art by minority artists-African American, Native American, Asian American, Latino-and asks how their artworks provide an alternative way of envisioning the U.S., one that disrupts the United States' claim to universal citizenship and universal access to property. In the course we will ask how art that supports the ideal narrative of the U.S. and art that contests that narrative does so by both concealing and illuminating the gendered and eroticized features of racial domination.

AmSt 3113W America's Diverse Cultures
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Child, Brenda J
This course is a study of American Indian communities of the Great Lakes over time, with particular attention to Ojibwe, Dakota, and Ho-Chunk experiences. In the period before contact with Europeans, Algonquins and Siouan peoples in 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 Menominees 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 roles, the introduction of disease, treaties, wars, the establisment 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.
Class time: 75% lecture, 25% discussion
Work load: 75 pages of reading per week, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: Essay

AmSt 3252W American Popular Culture and Politics: 1900 to 1945
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Prell, Riv-Ellen
This course explores the meaning of citizenship in the United States as the nation underwent a dramatic transformation from 1900-1945. Native-born European Americans confronted the mass migration of Europeans, the Great Migration of African Americans from South to North, urbanization and movements for social transformation, such as Suffrage, that put into question a Victorian, late nineteenth century view of Americe as a largely

homogenous, racially hierarchic country. Two minority groups, African Americans and Jews, were pioneers in redefining a nation that had not envisioned either group as full participants in it. As pioneers of early twentieth centruy popular arts such as music, film and vaudeville, they participated in a redefinition of the meaning of being an American through those media. These minority groups at the same time were coming to terms with what it meant to be a "New Negro", a "citizen of Harlem," and an American Jew. The focus of our course will be to understand how intimate life and popular culture engage political processes of nation building and defining a culture for minorities "outsiders" who simultaneously define themselves against, and in relationship to, that society.
Class time: 30% lecture, 40% discussion, 30% Films
Work load: 60 pages of reading per week, 0 exams, 1 papers, Weekly quizzes
Exam format: Essay

AmSt 3301W Senior Proseminar in American Studies
(Sec 001); prereq—AmSt sr; meets CLE req of Writing Intensive; 3 cr
Instructor: Choy, Catherine C
This seminar is the first of a two-semester sequence required of majors in American Studies, The two-semester proseminar serves as a capstone for the undergraduate major in American Studies, significant issues and problems in the field, and hands on experience in research methodologies, cumulating in the production of the senior thesis. In this seminar, we will consider a wide range of issues relating to American cultural diversity, the experience of modernity, and the construction of individual and social identity approached through critical reading of autobiographies, short stories, novels, histories, and culural critiques. Identification of appropriate research topics will be drawn from research and discussion.

AmSt 3993 Directed Studies
(Sec 001); max crs 9; prereq—instr consent; 1-9 cr
Instructor: STAFF
Arrangements must be made with the professor who oversees the project.

AmSt 5202 Thought and Practice of American Religions
(Sec 001); prereq—instr consent; 4 cr
Instructor: Yates, Gayle Graham
Holidays, festivals, religious arts, organizations, spirituality, ethics, and systems of thought of "civil religion", "women's religion", indigenous American religions, American versions of Christianity, Judaism, Islam, Buddhism, and other world faiths and their interactions in the U.S. and worldwide.
Class time: 40% lecture, 40% discussion, 20% Museum visits and student presentations.
Work load: 50 pages of reading per week, 60 pages of writing per semester, 5 papers
Grade: 40% written reports/papers, 30% special projects, 20% in-class presentations, 10% class participation

Ancient Near Eastern
330 Folwell Hall: 612-625-5353

ANE 1001 The Bible: Narrative Texts
(Sec 001); Same as: RELA 3201, ANE 3001; meets CLE req of Literature Core; 3 cr
Instructor: STAFF
This course will examine narrative portions of the Hebrew Bible, many taken from the Pentateuch (Genesis-Deuteronomy). The focus will be on understanding how biblical narrative texts arose, and on how modern scholarship reads such texts. Considerable attention will be paid to the ancient Near Eastern world as an aid to biblical understanding. The course assumes no prior knowledge of the Hebrew Bible (Old Testament).

ANE 3951 Major Project
(Sec 001); prereq—ANE major, 3 3xxx ANE courses or instr consent; 4 cr
Instructor: STAFF
Student may contact the instructor or department for information.

ANE 5713 Introduction to Ugaritic
(Sec 001); prereq—Adv Hebrew, previous study of biblical texts or instr consent; 3 cr
Instructor: Von Dassow, Eva
Ugaritic, which belongs to the northwestern branch of the Semitic language family, was the language of the ancient city-state of Ugarit, located on the coast of Syria. It is attested only during the last two centuries of the Late Bronze Age (14th-13th centuries BCE), when, as well as writing in the Akkadian language using the Mesopotamian cuneiform script, the scribes and literati of Ugarit used a cuneiform alphabet to write in their own language on clay tablets. They wrote myths, epics, ritual texts, letters, accounting records, and contracts in the Ugaritic language. Their mythic and epic compositions are precious testimony to the Syro-Canaanite religion reflected in the Hebrew Bible, and these texts are therefore of great interest to scholars of the Bible and the ancient Near East. This course will cover the grammar and writing system of Ugaritic and introduce students to a variety of different text genres, focussing especially on letters, myths, and epics. Since our understanding of the Ugaritic language is based largely on better-known Semitic languages such as Hebrew and Arabic, study of at least one other Semitic language is a prerequisite for the study of Ugaritic.
Class time: 25% lecture, 75% discussion
Work load: 25 pages of reading per week, 20 pages of writing per semester, 1 exams, 1 papers, Weekly quizzes and assignments
Grade: 65% written reports/papers, 20% quizzes, 15% class participation
Exam format: Translation and grammatical analysis of texts

Animal Science
122 Peters Hall: 612-624-2722

AnSc 1011 Domestic Animals and Society
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme; 3 cr
Instructor: Seykora, Anthony James
This course addresses contemporary issues that are impacting animal agriculture. Major issues include: The safety, nutritional value and health related issues of animal products in the human diet; animal behavior, welfare, and rights; organic vs. conventionally produced food; genetically enhanced foods; and the changing, industrialized structure of the livestock industry. The main focus is on livestock species, but care, management and welfare of companion animals and wildlife are also a part of the course. Guest speakers from the livestockl/food industries and animal welfare groups are an integral part of the course.
Class time: 70% lecture, 30% discussion
Work load: 30 pages of reading per week, 3 exams, 10 short homework assignments
Grade: 40% mid-semester exam(s), 20% final exam, 40% written reports/papers
Exam format: Short answer/true and false/multiple choice

AnSc 1511 Food Animal Products for Consumers
(Sec 001); Same as: FSCN 1511; 3 cr
Instructors: Smith, David Eugene; Addis, Paul B
This course deals with various types of animal products which are consumed by humans as food. These include beef, pork, fish, poultry and dairy products. Course is a lecture format with some demonstration sessions.
Class time: 85% lecture, 15% laboratory
Work load: 2 exams
Grade: 66% mid-semester exam(s), 33% final exam
Exam format: Short answer

AnSc 2011 Dairy Cattle Judging
(Sec 001); prereq—instr consent; 2 cr
Instructor: Hansen, Leslie Bennett **!!COAFES Distinguished Teaching Award; Morse Alumni Award!!**
Evaluation of dairy cows and heifers on the basis of physical appearance. Training in oral justifications of placings of classes of animals. Field trips to many dairy farms in Minnesota, Iowa, and Wisconsin to evaluate dairy animals. Most students enrolling in this course have interest in participating in the Intercollegiate Dairy Cattle Judging Teams program. No previous dairy cattle judging experience is required, but is highly recommended.
Class time: 100% laboratory, Placings of classes and oral justifacation of placings.
Grade: Placings of classes and oral justification of placings.

AnSc 2102 Horse Production
(Sec 001); 3 cr
Instructor: STAFF
Fundamentals of horse care. Major emphasis is on equine nutrition, understanding horse behavior and interactions with the trainer, diseases, and a health care program including hoof care, parasite control, first-aid and vaccinations.
Class time: 100% cctv

AnSc 2301 Systemic Physiology
(Sec 001); prereq—Biol 1009 or equiv; 4 cr
Instructor: Wheaton, Jonathan E
The course is team-taught and covers the major physiological systems of the body. Lectures are presented under the following topics: 1) The cell and excitable tissue—Dr. M. El-Halawani; 2) Respiration and digestion—TBA; 3) Thermodynamics—Dr. S. O'Grady; 4) Blood and circulation, kidney—Dr. J. Osborn; and 5) Endocrinology and reproduction—Dr. J. Wheaton. Four examinations are given, each covering approximately 25% of the material. There is no comprehensive final examination. Examinations are multiple choide, fill in the blank or short answer. Collective points gained from examinations comprise about 80% of the final grade. The remaining 20% of the final grade comes from laboratory quizzes. Ten laboratories are conducted during the semester. Various demonstrations, experiments, visits to animal facilities, etc., are used to further explain lecture material.
Class time: 75% lecture, 25% laboratory
Work load: 20 pages of reading per week, 4 exams
Grade: 80% mid-semester exam(s), 20% lab work
Exam format: Multiple choice

AnSc 2401 Animal Nutrition
(Sec 001); prereq—BioC 1012 or Chem 2301; 3 cr
Instructor: Stern, Marshall D
Introduction to the principles of animal nutrition discussed on a comparative species basis including classification and function of the various nutrients (carbohydrates, protein, lipids, minerals and vitamins); use of nutrients for body maintenance, growth, egg production, gestation, and lactation; comparative study of the digestive systems of farm animal species; nutrient requirements and allowances for farm animals. The course is targeted for undergraduates seeking an understanding of how feedstuffs are combined to meet the nutrient needs of animals and appreciate the practical application of nutrition to farm animals species.
Class time: 100% lecture
Work load: 25 pages of reading per week, 5 exams
Grade: 100%, 5 exams, with each exam worth 20% of the grade.
Course URL: www.agricola.umn.edu/ansc2401/

AnSc 3221 Animal Breeding
(Sec 001); 4 cr
Instructor: Seykora, Anthony James
This course is the application of qualitative and quantitative genetic principals to animal breeding. Topics included: Mendelian genetics, computation of genetic values from an individuals own performance and relatives, selection indexes, inbreeding and relationships, crossbreeding and development of a breeding program. The laboratory portion of the course is held in the computer lab. Computer simulation programs enhance the learning experience of the students.
Class time: 60% lecture, 15% discussion, 25% laboratory
Work load: 30 pages of reading per week, 3 exams
Grade: 30% mid-semester exam(s), 15% final exam, 15% special projects, 15% quizzes, 25% problem solving
Exam format: true-false, multiple choice, problem solving

AnSc 3305 Reproductive Biology in Health and Disease
(Sec 001); prereq—Biol 1009 or equiv; 4 cr
Instructor: Mauro, Laura Jeanne
This course is intended to provide students with an understanding of the basic principles of reproductive physiology emphasizing mammalian species. An introduction to the "chemical messengers' of reproduction—their synthesis, mechanism of action and regulation—will provide a foundation for a detailed study of topics, such as sexual differentiation, the functioning of the female and male reproductive systems, the physiology of pregnancy and birth, and reproductive senesence. These topics will be expanded to incorporate unique aspects of reproduction in domestic and wild animals and humans, along with relevant examples of the pathophysiology of reproductive diseases. The students will also be introduced to the current science and issues of applied reproductive biotechnologies. This course is targeted for undergraduate majors, pre-professionals and non-majors who want a better understanding of the basic and applied concepts of reproduction in animals and humans.
Class time: 75% lecture, 10% discussion, 15% laboratory
Work load: 3 exams, 1 papers, plus lab assignments
Exam format: Combination of short answer and multiple choice

AnSc 4401 Swine Nutrition
(Sec 001); prereq—2401, 3511 recommended; 3 cr
Instructor: Shurson, Gerald C
This course involves lectures, discussions and problem solving focused on key nutrition and feeding program management concepts related to developing and evaluating life cycle feeding programs for swine. Diet formulation and evaluation along with estimating nutrient requirements in each stage of production using computer software are key activities of the course. Both undergraduate and graduate students, with som previous coursework in nutrition, who want a comprehensive understanding of all the major considerations of providing optimum cost effective nutrition to swine in all phases of production, are encouraged to take this course.
Class time: 50% lecture, 25% discussion, 25% laboratory
Work load: 40 pages of reading per week, 8 exams, 1 papers, 10 problem sets
Grade: 5% written reports/papers, 30% problem solving, 65% , exams
Exam format: essay, multiple choice, matching, short answer, true/false, problem solving

AnSc 4605 Poultry Production Systems Management
(Sec 001); prereq—2401; 4405 recommended; 4 cr
Instructor: Jacob, Jacqueline P
Course will cover physiology, nutrition, diseases and genetics of poultry and their relation to current management practices for production of eggs, broilers, turkeys and miscellaneous poultry. Technical and practical phases of production and marketing in relation to their underlying principles will be discussed. Visits to commercial production units are planned.
Class time: 70% lecture, 5% discussion, 10% laboratory, 15% Farm visits
Work load: 2 exams, One student presentation
Grade: 30% mid-semester exam(s), 40% final exam, 10% in-class presentations, 5% lab work, 15% , Farm visits
Exam format: Multiple choice, fill-in-the-blank, short answer

Anthropology
395 HHHCtr, 612-625-3400

Anth 1001 Human Evolution
(Sec 021); meets CLE req of Biological Sciences/Lab Core; 4 cr
Instructor: Laden, Gregory Thomas
This is a course about evolution, modern day Homo sapiens, and the history of Homo sapiens. Evolution is the central organizing theory of biology. Although we will focus on themes in evolution that relate most directly to Homo sapiens, we will address this field broadly enough that you will be prepared for intermediate or advanced study in other fields of biology. Modern day Homo sapiens may be understood from many different perspectives, ranging from literature and art to social studies and psychology.We will focus on how biology provides insights into human behavior and physiology. We will investigate paleoanthropology, which includes anatomy, geology, archaeology, and ecology, and review the fossil record of now-extinct members of our taxonomic family. We will also investigate Primatology. One way to think about human evolution is to consider the difference between pattern and process. For example, the pattern of human evolution is manifest as the fossilized remains of extinct species that are to various degrees ape-like or human-like, (or, perhaps, "something-else-like") found in specific areas of the world, and dated to specific time periods. The pattern we see in these remains implies processes of adaptation to specific environments, of evolutionary change from one form to another, and even chance and happenstance. We will develop a working knowledge of the patterns in the fossil record, the living primates, etc. and delineate the processes underlying these patterns.
Class time: 50% lecture, 50% laboratory
Work load: 50-65 pages of reading per week, 20-25 pages of writing per semester, writing includes lab assignments, quizzes, and take home assignments
Grade: 40% mid-semester exam(s), 27% final exam, 33% lab work
Exam format: multiple choice

Anth 1003W Understanding Cultures
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
Introduction to social and cultural anthopology 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.
Class time: 75% lecture, 25% discussion
Work load: 50-100 pages of reading per week, 10-15 pages of writing per semester, 2-4 exams, exams include quizzes and final
Exam format: multiple choice; essay

Anth 1005W Introduction to Cultural Diversity and the World System
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Lipset, David M
This course will focus on relations between culture and the globalization process. How is migration, communication and global capitalism changing local understandings of identity, ways of life, etc.? The course will look at peoples and cultures inside and outside of the U.S. It is an introductory course in cultural anthropology which targets both students seeking to fulfill CLE requirements and prospective majors. Teaching will involve lecture format, multi-media presentations and active learning in recitation sections. The books will include a textbook, such as "On Being Different" by Kottak and a reader, such as "Talking About People" by Howland and Gordon, eds. There will also be two writing assignments, based on such books as "New Pioneers in the Heartland: Hmong Life in the Heartland", by Koltyk. In addition, there will be 3 multiple choice mid-terms.
Class time: 50% lecture, 25% discussion, 25% video presentations
Work load: 60 pages of reading per week, 10 pages of writing per semester, 3 exams, 2 papers, 7 active learning assignments (in class)
Grade: 60% mid-semester exam(s), 20% final exam, 20% written reports/ papers, also 10% class participation and 10% lab work
Exam format: multiple choice

Anth 3003 Cultural Anthropology
(Sec 001); prereq—1003 or instr consent; 3 cr
Instructor: Lipset, David M
The course closely examines different theoretical approaches to the study of different cultures. Major conceptual frameworks in modern cultural anthropology will be selected, such as social structural, Marxist, Freudian, and globalization.. Ethnographic monographs will form the basis of the readings. Works such as Benedict's "Chrysanthemum and the Sword" and Taussig's "The Devil and Commodity Fetishism" will be read both for ethnographic and theoretical goals and contents.The course is meant for premajors, majors and other interested students. It will be taught using lecture format and small group activities
Class time: 60% lecture, 40% discussion
Work load: 75 pages of reading per week, 4 exams
Grade: 80% mid-semester exam(s), 20% final exam
Exam format: essay

Anth 3005 Language and Sociocultural Analysis
(Sec 001); prereq—[1003, anthropology major] or instr consent; 4 cr
Instructor: Dunnigan, Timothy
Students will work closely with an informant (undergraduate teaching assistant) who speaks a language other than English (e.g. Hmong, Sierra Leone, Martinique Kreyol, etc.). The main goal will be to elicit specific kinds of language data in order to learn about the socio-cultural characteristics of another society. Being a four credit course, every student is expected to complete a number of elicitation exercises (approximately 5) by meeting with the T.A. for at least one hour per week. The topics covered will depend upon the T.A.'s cultural background, and could include explorations of such social variables as kinship categories, family structure, voluntary associations, etc. The most valuable and challenging educational experience offered by this course will result from the efforts of students and the instructor to acquire a rudimentary knowledge of a language in order to learn about an unfamiliar culture in the manner of an ethnographer working with a key source.
Class time: 50% lecture, 25% discussion, 25% field elicitation
Work load: Instead of reading texts, students will elicit and record data obtained from a fluent speaker of a l
Grade: 20% class participation, 80% , 20% oral reports, 40% written reports, 20% fieldnotes

Anth 3009 Rise of Civilization
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 3 cr
Instructor: Wells, Peter S
Introduction to the concept of civilization, 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.
Class time: 95% lecture, 5% discussion
Work load: 30 pages of reading per week, 2 pages of writing per semester, 4 exams, 2 papers
Grade: 45% mid-semester exam(s), 35% final exam, 20% written reports/ papers
Exam format: multiple choice, essay

Anth 3027W Archaeology of Prehistoric Europe
(Sec 001); Credit will not be granted if credit has been received for: ANTH 5027, ANTH 5027W; meets CLE req of Writing Intensive; 3 cr
Instructor: Wells, Peter S
Early development of non-Mediterranean European society from Old Stone Age through Iron Age to the Roman Period, based on archaeological evidence. Principle transformations of European culture with introduction of agriculture, development of metallurgy, and emergence of towns and cities. Intended for all undergraduates.
Class time: 95% lecture, 5% discussion
Work load: 30 pages of reading per week, 10-15 pages of writing per semester, 3 exams, 1 papers, map quiz
Grade: 30% mid-semester exam(s), 40% final exam, 25% written reports/ papers, 5% quizzes
Exam format: indentifications and essay

Anth 3028 Historical Archaeology of North America
(Sec 001); A-F only; 3 cr
Instructor: Gibbon, Guy E
Much of the daily focus today of the majority of North American archaeologists is on historic sites, such as fur posts, early settlements, slave quarters, logging and mining camps, and early farmsteads and bridges. This course provides a general introduction to the historical archaeology of North America, with an emphasis on research approaches, heritage management, and familiarity with common artifact types. Topics include documentary research, oral history, the integration of documents and archaeological data, artifact identification, industrial archaeology, and report writing.
Class time: 33% lecture, 33% laboratory, 33% text-based exercises
Work load: 30-50 pages of reading per week, short weekly exercises
Grade: 33% written reports/papers, 33% lab work, 33%, weekly exercises
Exam format: essay

Anth 4023W Culture Theory
(Sec 001); A-F only; prereq—Jr or sr or grad or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Penn, Mischa **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
This course traces the vicisitudes of the culture concept in American anthropology in the period between the wars through the 70's and 80's post-Vietnam era into the 90's. Three decisive moments in its complex development are emphasized. The first is an efflorescent period in which anthropologists defended the viability and autonomy of the culture concept against the view that it is either redundant—the term "society" provides a clearer and more precise rendition of the phenomena denoted by "culture"—or may be explained, or even explained away in the light of advancing knowledge in evolutionary biology. The second involved a disregard for the metaphysical debates of the 20's, 30's, and 40's, over whether "culture" belongs to one or another class of phenomena, instead of determining its scientific-empirical vialbility. A third notable moment originates in the works of Clifford Geertz. Geertz rejected the position espoused by many of the founding theorists, that "culture" denotes a body of norms which underlie and regulate behavior. He maintained as well that a "science of culture" based upon the discovery of causal regularities in behavior is inconceivable.
Class time: 60% lecture, 40% discussion
Grade: 60% mid-semester exam(s), 40% special projects
Exam format: Essay

Anth 4071 Race and Culture
(Sec 001); A-F only; prereq—1003 or 3003 or instr consent; 3 cr
Instructor: Penn, Mischa **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
Examines four major orientations in the study of racism. (a). "Liberalists" (Montagu, Benedict) argued that race-beliefs cannot satisfy the test of evidence which scientifically-minded persons would find persuasive. Racism is a psychological phenomenon, and efforts to demonstrate the truth or falsity of race-beliefs are, therefore, beside the point. (b). In agreement with the liberalists, "social symbolists" (Voegelin), maintain that race-beliefs have no basis in fact. Vogelin argued, (1) that race-beliefs are symbolic construction responsible for the formation and perduring solidarity of the group, and (2) reveal the ways in which the groups collective knowledge of "the other" is organized. (c). In contrast to the symbolists, the "sociodiscussive" approach (Goldberg) shifts the emphasis from "symbol" to "discourse", from idea and image to concrete acts embedded in ways o f life which value aggression toward others believed biologically and culturally inferior. (d). The "phenomenological" approach (Fanon) focuses upon the transfiguring effects of racist practices upon a recipient's self-perceptions. Fanon argued that in their everyday lives persons of color experience an invasive and disquieting conflict

between two world-views: a direct, unmediated awareness of color which is at the heart of a vision of self and the world, and an outlook voiced in the rarefied, objective language of a scientist.
Class time: 60% lecture, 40% discussion
Work load: 1 exams, 1 papers
Grade: 60% final exam, 40% written reports/papers
Exam format: Essay.

Anth 5027W Origins of European Civilization
(Sec 001); Credit will not be granted if credit has been received for: ANTH 3027, ANTH 3027W; prereq—=3027; meets CLE req of Writing Intensive; 3 cr
Instructor: Wells, Peter S
Early development of non-Mediterranean European society from Old Stone Age through Iron Age to Roman Period, based on archaeological evidence. Principle transformations of European culture with the introduction of agriculture, development of metallurgy, and emergence of towns and cities. Intended for advanced undergraduates and graduate students.
Class time: 95% lecture, 5% discussion
Work load: 30 pages of reading per week, 15-20 pages of writing per semester, 3 exams, 1 papers, map quiz
Grade: 30% mid-semester exam(s), 35% final exam, 30% written reports/papers, 5% quizzes
Exam format: identifications and essay

Applied Business
101 Westbrook Hall 612-624-4000

ABus 4032 Quantitative Skills for Decision Making
(Sec 001); A-F only; prereq—College algebra, college statistics, at least 45 cr; 3 cr
Instructor: STAFF
Methods for analyzing and using quantitative information to support problem solving and decision making in business. Exploratory data analysis, visual display of data, and basic mathematical and statistical techniques for analysis will be studied and applied. Introduction to decision theory and decision modeling will be provided. Problems which can be formally modeled and solved through application of various operations research techniques will be presented so students appreciate how mathematical techniques are used to support problem solving and decision making in organizations. Primarily for B.A.S. students in the Applied Business program or other B.A.S. majors. Non-B.A.S. students must have academic advisor approval and meet course prerequisites. See B.A.S. Web site for additional course information.
Course URL: www.cce.umn.edu/bas

ABus 4101 Accounting and Finance for Managers
(Sec 001); A-F only; prereq—One semester of lower-div principles of accounting, at least 45 cr; 3 cr
Instructor: STAFF
Expands on students' lower division work in financial accounting and adds principal concepts of finance. Emphasis is on business decision making from an accounting and financial perspective, including topics such as analysis of cost-volume-profit relationships, capital budgeting, variances, uses and sources of funds, and valuation. Primarily for B.A.S. students in the Applied Business program or other B.A.S. majors. Non-B.A.S. students must have academic advisor approval and meet course prerequisites. See B.A.S. Web site for additional course information.
Course URL: www.cce.umn.edu/bas

ABus 4103 Marketing and Sales
(Sec 001); A-F only; prereq—At least 45 cr; 3 cr
Instructor: STAFF
Legal, behavioral, ethical, competitive, economic, and technological factors are examined as they affect product pricing, promotion, and marketing. The personal selling function is presented as an integral part of the overall distribution system with emphasis on sales force organization, selection, training, motivation, compensation, forecasting, budgeting, and control. Primarily for B.A.S. students in the Applied Business program or other B.A.S. majors. Non-B.A.S. students must have academic advisor approval and meet course prerequisites. See B.A.S. Web site for additional course information.
Course URL: www.cce.umn.edu/bas

ABus 4970 Directed Study
(Sec 001); max crs 3; prereq—BAS student in applied business, instr consent, dept consent; 1-3 cr
Instructor: STAFF
Specially arranged projects, trips, or field work. Primarily for B.A.S. students in the Applied Business program or other B.A.S. majors. Non-B.A.S. students must have academic advisor approval and meet course prerequisites. [See B.A.S. Web site at www.cce.umn.edu/bas for additional course information.]

ABus 4999 Practicum
(Sec 001); A-F only; prereq—BAS student in applied business, at least 33 applied-business cr, instr consent, dept consent; 3 cr
Instructor: STAFF
This course may take one of the following forms, or may be specially designed to cooperation with a faculty adviser: (1) supervised project in the student's employing organization; (2) supervised project in an organization providing an internship site; (3) compilation and integration of a thematic selection of projects drawn from previous course work; or (4) development of a business plan for a new venture or expansion of an existing business. Students enrolled in thepracticum will meet in scheduled class sessions on a limited basis to review progress and share emerging insights, or to problem solve with other enrolled students. Primarily for B.A.S. students in the Applied Business program or other B.A.S. majors. Non-B.A.S. students must have academic advisor approval and meet course prerequisites. [See B.A.S. web site at www.cce.umn.edu/bas for additional course information.]

Applied Economics
231 Classroom Office Building: 612-625-1222

ApEc 1001 Orientation to Applied Economics
(Sec 001); A-F only; 1 cr
Instructor: Cooper, Gary M
Introduction to the curriculum offerings, liberal education requirements, employment opportunities and the faculty in the Department of Applied Economics. This is a required one-credit course for all undergraduates majoring in Agricultural and Food Business Management or in Applied Economics. Emphasis will be placed on the historical development of the discipline, the areas of specialization, course work expectations and career planning (e.g., student self-assessment and analysis of interests, skills and abilities; discussion of opportunities in the field—study abroad experiences summer jobs, and internships).
Class time: 65% lecture, 35% discussion
Work load: 25 pages of reading per week, There will be two in-class quizes.
Grade: 25% special projects, 60% quizzes, 15% , Class attendance
Exam format: The two quizes will be multiple choice, short answer and choice of short essay.

ApEc 1101 Principles of Microeconomics
(Sec 001, 005); no credit will be granted if credit has been received for: Econ 1101 or Econ 1104.; meets CLE req of Social Science Core; 3 cr
Instructor: Parliament, Claudia A
The social science called economics is mainly divided into two major subject matter areas: micro and macro economics. Microeconomics, the topic of this course, deals with consumer behavior, production decisions of business firms, and markets. Special topics including environmental economics and the economic role of the government will be included. The major emphasis in the course will be on economic concepts and their application to current issues. The intent is to make this course intellectually stimulating and an enjoyable learning experience for you.
Class time: 50% lecture, 20% discussion, 30% interactive learning, small group work
Work load: 25 pages of reading per week, 7 pages of writing per semester, 3 exams, 1 papers, 10 online quizzes
Grade: 40% mid-semester exam(s), 25% final exam, 15% written reports/papers, 10% quizzes, 10% , homework assignments
Exam format: Problem solving, multiple choice, short answer, graphical analysis
Course URL: webct3.umn.edu/public/APEC1101_f01/

ApEc 1102 Principles of Macroeconomics
(Sec 001); Credit will not be granted if credit has been received for: ECON 1102, ECON 1105, ECON 1102H; prereq—1101 or Econ 1101; 3 cr
Instructor: Aziz, Fahima
The social science called economics is mainly divided into two major subject matter areas: micro and macroeconomics. Macroeconomics, the

topic of this course, is concerned mainly with the problems of unemployment and inflation. Thus a major part of this will be devoted to studying the causes of unemployment and inflation and the various measures that can be taken to avoid or at least mitigate these problems. The most important objective of this class is to introduce you to some very useful concepts in macroeconomics and to help you develop your skills in using these concepts to answer economic questions or make economic decisions. The major emphasis in the course will be on concepts and their applications, as opposed to factual or descriptive material. This will help you to see how macroeconomic theory can be used to analyze economic problems and give you a flavor of economic model building.
Class time: 50% lecture, 30% discussion, 20% small group work
Work load: 30 pages of reading per week, 4 exams, 15 assignments, in-class active-learning assignments
Grade: 30% mid-semester exam(s), 40% final exam, 15% class participation, 15% problem solving
Exam format: multiple choice, short essay, and graphical analysis

ApEc 1251 Principles of Accounting
(Sec 001); prereq—credit will not be granted if credit received for: Acct 2050; 30 cr; not recommended for premajors in AgFoodBus majors; 3 cr
Instructor: Nefstead, Ward Elliot
Fundamentals of business accounting; basic finance concepts; use of accounting data for income tax and managerial decision making. The following student learning objectives are included: 1) the student will be able to demonstrate an understanding of accounting from a user/consumer point of view; 2) the student will be able to perform the basic activities associated with accounting; 3) the student will be able to describe and contrast various accounting systems; 4) the student will be able to demonstrate proficiency in the analysis/interpretation of financial statements; 5) the student will be able to demonstrate the ability to work with actual case studies or analyze the relevance of accounting.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 15 pages of reading per week, 4 exams, 1 papers
Grade: 40% mid-semester exam(s), 20% final exam, 20% special projects, 20% class participation
Exam format: Multiple choice

ApEc 3000 Seminar in International Agriculture
(Sec 001); max crs 3; 3 repeats allowed; prereq—instr consent; 1 cr
Instructor: Easter, K William
This is a seminar course intended only for students minoring in international agriculture. Weekly discussions are held with the students. Course objectives involve developing and completing the "minor" paper along with gaining a better understanding of international agriculture.
Class time: 100% discussion
Work load: 20 pages of reading per week, 35 pages of writing per semester
Grade: 90% written reports/papers, 10% , discussion with students

ApEc 3001 Applied Microeconomics: Consumers, Producers, and Markets
(Sec 001); prereq—credit will not be granted if credit received for: Econ 3101; [1101 or Econ 1101], [Math 1142 or Math 1271]; 4 cr
Instructor: Hurley, Terrance Michael
This is a course in intermediate microeconomic theory, focusing on both consumer and producer decisions. Starting from a firm 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 structured as a lecture/discussion course, with opportunities to develop problem-solving skills through in-class exercises and problem sets. This course is the first in a sequence with ApEc 3002 (Manegerial Economics). The primary audience for this course is undergraduate students majoring in Agricultural and Food Business Management and Applied Economics.
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week, 1 exams, 7 quizzes
Grade: 25% final exam, 50% quizzes, 25% problem solving
Exam format: multiple choice and short answer problems

\pEc 3002 Applied Microeconomics: Managerial Economics
(Sec 001); prereq—[3001 or Econ 3101], [OMS 1550 or Stat 3011]; 4 cr
Instructor: King, Robert P
This course focuses on the application of microeconomic theory to managerial problems. Lectures, readings, problem sets, lab sessions, case studies, and discussions integrate theory and applications. Topics include: an introduction to regression analysis, demand analysis and demand function estimation, cost function estimation, resource allocation decisions, linear programming, market structure, pricing policy, risk analysis, and capital budgeting. This course is the second in a sequence that begins with ApEc 3001, "Consumers, Producers, and Markets". The primary audience for this course is undergraduate students majoring in Agricultural Business Management, Agricultural Industries and Marketing and Applied Economics.
Class time: 40% lecture, 10% discussion, 50% laboratory
Work load: 30 pages of reading per week, 3 exams, Written lab assignments and 3 problem sets.
Grade: 30% mid-semester exam(s), 20% final exam, 10% quizzes, 30% lab work, 10% problem solving
Exam format: Problems, short answer, short essay
Course URL: webct3.umn.edu

ApEc 3006 Applied Macroeconomics: Government and the Economy
(Sec 001); prereq—credit will not be granted if credit received for: Econ 3102; 3001 or concurrent enrollment 3001 or Econ 3101 or concurrent enrollment Econ 3101; 3 cr
Instructor: Smith, Rodney B
This course is concerned mainly with aggregate economic activity. Major emphasis is on factors determining national income, employment, interest rates, and the price level. These factors include aggregate consumption, business investment, imports and exports, government spending and taxation, the money market, and the labor market. Implications of changes in government economic policies are considered.
Class time: 80% lecture, 20% laboratory
Work load: 40 pages of reading per week, 3 exams, weekly homework problems
Grade: 60% mid-semester exam(s), 40% final exam
Exam format: combination of true/false explain, multiple choice, and short essay

ApEc 3041W Economic Development of U.S. Agriculture
(Sec 001); prereq—1101 or Econ 1101; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Levins, Richard A
A review of the economic, political, social, and technical forces that have shaped the development of U.S. agriculture. There is a particular emphasis on understanding public policies that have tried to make agriculture more profitable and more sustainable. Objective: To help students understand how U.S. agriculture developed as it did, and why. With this background, the student can better understand present and future developments of U.S. agriculture. Texts: "The Development of American Agriculture: A Historical Analysis", Willard W. Cochrane, 2nd Edition, 1993; Levins, R.A., "Willard Cochrane and the American Family Farm", University of Nebraska Press, 2000; other selected readings. Target audience: all CLA, COAFES, CHE, and CNR students. Farm background is NOT required. Also designated, diversified core in History of the Social Sciences and Writing Intensive.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, Weekly papers, final paper
Grade: 10% class participation, 90% , 70% weekly papers; 20% final paper
Exam format: essay

ApEc 3411 Grain Marketing Economics
(Sec 001); prereq—1101 or Econ 1101; 3 cr
Instructor: Stevens, Stanley C
The subject matter of this course includes a review of the world geography of grain and oilseed production, growing season weather, and world trade patterns in these commodities. Grain transportation economics and grain grades and standards are also reviewed. Futures and options on futures markets are surveyed covering topics ranging from the jargon of day to day workings of futures exchanges to the more formal economics of these institutions. Topics include: hedging, speculation, economics of grain storage, technical analysis, fundamental analysis, volume and open interest analysis, and other strategic investment and/or risk management approaches. A few guest lectures and a visit to the Minneapolis Grain Exchange are usually included. The course is appropriate for undergraduate students. Students with career plans as farmers, grain merchandisers, bankers, and/or speculators will benefit as decision makers, while others will gain useful general perspective on Mid-western ag history, the complexities of past and current world and U.S. grain market policies and the impact of new ag on the environment.
Class time: 100% lecture
Work load: 10 pages of reading per week, 2 exams
Grade: 30% mid-semester exam(s), 40% final exam, 30% quizzes
Exam format: essay

ApEc 3501 Agribusiness Finance
(Sec 001); prereq—credit will not be granted if credit received for: Fina 3001; [[1251 or Acct 2050], 60 cr] or instr consent; 3 cr
Instructor: Pederson, Glenn Darwin
Topics include: analysis of financial statements and performance of agribusiness firms; evaluation of capital investment projects, selection of financial structure, risk management, and introduction to financial markets and credit institutions. Teaching is primarily accomplished through lecture, class discussion, problem solving exercises and computer labs. Text and course supplementary notes are the primary reference materials. A standard introductory business finance text is used. Supplementary notes were developed by the instructor to assist students in note-taking and working problems.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 30 pages of reading per week, 3 exams
Grade: 30% final exam, 30% quizzes, 10% class participation, 30% lab work
Exam format: Multiple choice, problems, and essays.
Course URL: apecon.agri.umn.edu/faculty/gpederso

ApEc 3991 Independent Study in Applied Economics
(Sec 001); max crs 4; prereq—instr consent; 1-4 cr
Instructor: STAFF
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
(Sec 001); max crs 6; 6 repeats allowed; S-N only; prereq—COAFES jr or sr, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only; 1-3 cr
Instructor: STAFF
Professional experience in agribusiness firms or government agencies gained through supervised practical experience; evaluative reports and consultations with faculty advisors and employers.

ApEc 4103 World Food Problems
(Sec 001); Same as: AGRO 4103, FSCN 4103; prereq—credit will not be granted if credit received for: Agro 4103, CAPS 4103, FScN 4103; jr or sr or grad; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; 3 cr
Instructors: Hardman, Leland L; Senauer, Benjamin H; Schafer III, Henry William
This course provides of a multi-disciplinary look at problems that exist between population, food supply, hunger and resource sustainability. The basics of food production, nutrition and food safety are discussed. Lectures, readings, and small group discussions are used to show the conflicting views on education and development assistance strategies and the role of science and technology as they encounter the cultural and ethical values of people in the various countries of the world. The course emphasizes the critical roles of government officials, international assistance agencies, international research and outreach centers, and the private business sector in finding solutions to these complex problems. Students can enroll in any of the three cross-listed courses (Agro 4103, ApEc 4103 or FScN 4103). Previous background in any of the disciplines is not required, but because it is an upper division course, students are expected to develop advanced level presentations and assignments.
Class time: 60% lecture, 25% discussion, 15% Videos, slide sets, tapes, etc.
Work load: 30-40 pages of reading per week, Weekly homework assignments
Grade: 30% , final paper; 70% weekly homework assignments

ApEc 4451W Food Marketing Economics
(Sec 001); Same as: FSCN 4451; prereq—[1101 or Econ 1101], 60 cr; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Senauer, Benjamin H
The course covers the development of a marketing plan/strategy for food products, including developing a target market based on consumer trends and segmentation. The food industry at the retail (foodstore and foodservice) and wholesale levels, plus supply chain management are studied, including the impact of e-commerce both at the consumer and business levels. Current ethical and public policy issues confronting the food industry are examined and considered from various perspectives. Students pursue individual and group projects. Three special projects account for 50% of the grade. They require written reports of about 5 pages and class presentations. The first involves developing a marketing plan for a food product and the second a case study of a marketing decision by a local food business. The last project involves a debate of food and nutrition policy issues by the class. There are several industry speakers. The course fulfills both writing intensive and citizenship and public ethics requirements.
Class time: 50% lecture, 25% discussion, 25% Presentations and debates
Work load: 35 pages of reading per week, 24 pages of writing per semester, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation, 4 Special projects (reports/papers and presentations)
Exam format: Essay, short answer

ApEc 5031 Methods of Economic Data Analysis
(Sec 001); prereq—Math 1271, Stat 5021, knowledge of matrix algebra; 3 cr
Instructor: Mc Cullough, Gerard John
A basic course in statistical and econometrics techniques for applied economics. Theory and application of the multivariate regression model using data sets from published economic studies. Emphasis on the use of statistical technique to understand market behavior.
Class time: 70% lecture, 30% discussion
Work load: 30 pages of reading per week, 2 exams, 6 problem sets
Grade: 30% mid-semester exam(s), 40% final exam, 30% problem solving
Exam format: problems

ApEc 5151 Applied Microeconomics: Firm and Household
(Sec 001); prereq—Concurrent enrollment Econ 5151 or instr consent; 2 cr
Instructor: Coggins, Jay Steven
Quantitative techniques for analysis of economic problems of firm and household. Links between quantitative tools and economic analysis developed to understand economic theory and develop research skills. Quantitative tools include regression analysis and mathematical programming. Primarily for MS students, should be taken concurrently with Econ 5151.
Class time: 70% lecture, 15% discussion, 15% laboratory
Work load: 2 exams, 3-4 written assignments
Grade: 15% mid-semester exam(s), 45% final exam, 40% problem solving
Exam format: Essay/problems

ApEc 5321 Regional Economic Analysis
(Sec 001); prereq—3006 or Econ 3102 or instr consent; 3 cr
Instructor: Morse, George W
The course focuses on sustainable regional and community economic development. It examines the role of resources, transportation, migration, and institutional constraints. Factors influencing firm location decisions are examined. Regional models (economic base, input-output, computable general equilibrium) are used to analyze sectoral linkages. Regional and local economic development tools (tax increment financing, tax abatements, business retention programs) are evaluated. Case studies focus on Minnesota to allow students to interact directly with local officials. This not only provides a better educational experience, but in some cases, projects can be cited on student's resume and help in the job search process. While the case studies have a Minnesota focus, the analytical tools can be used globally. Course is open to grad students and seniors with prerequisites, especially Applied Economics, HHH, Economics, Geography, Forest Econ. Texts: Loveridge, Scott (Ed.) "The Web Book of Regional Science" Regional Research Institute, WVU. Check it out: www.wvu.edu/~regional/regscweb.html. A reading packet is also used.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 50 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, 2 quizzes
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: multiple choice and essay
Course URL: www.wvu.edu/~regional/regscweb.html

ApEc 5651 Economics of Natural Resource and Environmental Policy
(Sec 001); prereq—[3001 or Econ 3101], [4611 or Econ 3611 or NRES 3261W], 60 cr; meets CLE req of Environment Theme; 3 cr
Instructors: Archibald, Sandra O; Easter, K William
The course emphasizes the use of natural resources over time, natural resource scarcity or adequacy, environmental quality and mechanisms for pollution control and their implications for public policy. It will also include the study of the use of economic analysis and benefit cost analysis in natural resource and environmental quality decisions made both by the public and private sectors. This course is designed to service two groups: (1) seniors and graduate students in Applied Economics, Public Affairs, Geography, Natural Resources, etc., for whom it is a terminal course, and (2) Applied Economic or Economics students who plan to take ApEc 8601 and/or 8602. The course is organized around three lectures per week. However, discussion and questions are encouraged. Readings will be assigned that are on reserve such as Charles W. Howe's book, "Natural

Resource Economics: Issues, Analysis and Policy", David W. Pearce and R. Kerry Turner, "Economics of Natural Resources and the Environment", and Roger Permon, Yue Ma and James McGiluroy, "Natural Resources of Environmental Economics". Lecture notes for the class will be available in the book store. The latter book may be used as a text if it is still available from the publisher.

Class time: 85% lecture, 15% discussion

Work load: 60 pages of reading per week, 15 pages of writing per semester, 2 exams, 2 papers

Grade: 35% mid-semester exam(s), 40% final exam, 20% written reports/ papers, 5% problem solving

ApEc 5751 Agricultural Trade and Trade Policy: Issues and Analysis

(Sec 001); prereq—3001 or Econ 3101 or PA 5021; 3 cr

Instructor: Smith, Pamela Jane

This course covers international trade theory and policy as applied to agriculture. Trade theory topics include the Ricardian model, Specific Factors model, Heckscher-Ohlin model, Standard model, imperfect competition models, and international factor movements models. Trade policy topics include trade policy instruments (e.g., tariffs and non-tariff barriers), political economy of trade, international trade agreements (e.g., World Trade Organization, European Union), and trade aspects of intellectual property rights. Text: Paul Krugman and Maurice Obstfeld, 1997; " International Economics: Theory and Practice", 4th Edition. New York; Harper Collins. Other readings will be assigned from various journals, books, and research bulletins that will be on reserve in the St Paul Campus Library. Level: This course is designed for beginning graduate students and upper division undergraduates.

Class time: 50% lecture, 25% discussion, 25% The formal class time will emphasize active student involvement in the learning process.

Work load: 50 pages of reading per week, 2 exams, 2 presentations

Grade: 30% mid-semester exam(s), 30% final exam, 20% in-class presentations, 20% , discussions

Exam format: Applications of theory models to issues of policy relevance.

ApEc 5891 Independent Study: Advanced Topics in Farm and Agribusiness Management

(Sec 001); max crs 4; prereq—instr consent; 1-4 cr

Instructor: STAFF

Special topics or individual work.

Class time: 10% Varies/individauls approach

Work load: Varies by instructor

Grade: 100% , Varies

ApEc 5991 Special Topics and Independent Study in Applied Economics

(Sec 001, 002); max crs 12; 12 repeats allowed; prereq—instr consent; 1-4 cr

Instructor: STAFF

Special classes, indepedent study, and supervised reading and research on subjects not covered in regularly offered courses. Coursework varies by instructor. No exams usually given.

Arabic

808 Social Sciences Tower; 612-624-9847

Arab 1101 Beginning Arabic

(Sec 001, 002); 5 cr

Instructor: Khalek, Hisham A

Arabic 1101 is the first in a sequence of courses aimed at reading, speaking, listening, and writing formal Arabic, also known as Modern Standard Arabic. The four language skills of reading, listening, writing, and speaking will be utilized and practiced. The class begins with learning the Alphabet and proceeds into learning basic grammar and its applicability in daily conversations, reading elementary level Arabic, and writing si ple 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 texts used are the Alif Baa and Al-Kitaab, Part One. Both by Brustad, Al-Batal, and Al-Tonsi, aided by audio and video cassettes.

Class time: 40% lecture, 10% cctv, 40% discussion, 10% Culture

Work load: 10 pages of reading per week, 2 exams, 6 quizzes and homework assignments

Grade: 20% mid-semester exam(s), 30% final exam, 20% quizzes, 10% class participation, 20% , Homework

Exam format: Multiple choice and fill in the blank

Arab 3036 Islam: Religion and Culture

(Sec 001); Same as: HUM 3036, RELA 3036; prereq—credit will not be granted if credit received for: RelA 3036 or Hum 3036; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr

Instructor: Farah, Caesar Elie

The evolution of Islam in historical context; institutions that made for diversity and continuity; traditions, law and observances of the faith; sectarian movements; philosophical and theological trends; modern developments; reformist, revolutionary, and militant, Islamic revivalism movements, fundamentalism and militancy. Course limited to sophomores, juniors or seniors. Freshmen wishing to take this class must contact the instructor directly for permission.

Class time: 65% lecture, 10% discussion, 20% attendance

Work load: 25 pages of reading per week, 8 pages of writing per semester, 2 exams, 1 papers

Grade: 25% mid-semester exam(s), 35% final exam, 15% written reports/ papers, 5% in-class presentations, 5% class participation, 15% , attendance

Arab 3101 Intermediate Arabic I

(Sec 001); prereq—1102 or equiv or instr consent; 5 cr

Instructor: Khalek, Hisham A

Arabic 3101 is a continuation of Arabic 1102. It is designed to further develop language proficiency in modern standard Arabic in the four language skills. In speaking, the focus is on the use of everyday expressions through discussion and presentations. In reading, the focus is on reading authentic materials from Arabic journals and magazines. Writing is emphasized especially through writing weekly journals and homework assignments. Listening exercises and drills are utilized in class as well as in the language lab by listening and watching audio and video materials. The course is also aimed at familiarizing students with the cultures of the Arab world. The target audience is undergraduate and graduate students. The text is Al-Kitaab, Part One, by Brustad, Al-Batal, and Al-Tonsi, aided by audio and video cassettes.

Class time: 30% lecture, 10% cctv, 50% discussion, 10% Culture

Work load: 10 pages of reading per week, 20 pages of writing per semester, 2 exams, 6 quizzes, 1 presentation, homework assignments

Grade: 15% mid-semester exam(s), 20% final exam, 15% quizzes, 5% in-class presentations, 10% class participation, 35%, 15% written journals, 15% homework assignments, 5% oral exam

Exam format: Multiple choice, fill in the blank, and inference from reading short articles.

Arab 3543 Arabs Under Mamluks and Ottomans: 1300-1920

(Sec 001); Same as: ARAB 5543, HIST 3543, MELC 3543; prereq—credit will not be granted if credit received for: 5543; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3 cr

Instructor: Farah, Caesar Elie

The course is designed for upper division students and presumes knowledge of the earlier Islamic period. Specifically, it commences with the rise of the Mamluks to power in Egypt, their successful checking of the Mongol invasions, eliminating the remnants of the Crusader states, confrontation with the Ottomans which ended with the demise of their rule. We then focus on Ottoman rule over the Arab provices from 1517 until the end of the Ottoman Empire. Emphasis is on the Fertile Crescent provinces and the Nile Valley. Questions to be addressed: causes of the conquest, how the Ottomans re-ordered the provinces, confronting foreign powers and their encroachments, administrative changes introduced—success and failure, challenges by would-be dynasts and their suppression, consquences of Western imperial rivalries, role of tribalism in the Iraqi and Arabian provinces, role of the minorities in inviting foreign intervention, attempts at modernization and reform, advent of young Turks to power and the failure of their policies towards the Arabs culminating in the Arab Revolt which ended the Ottoman imperium. For the Mamluk period, we shall use selections from Hitti's "History of the Arabs"; for the Ottoman period, Holt's "Egypt and the Fertile Crescent Under Ottoman Rule" will be the main text.

Class time: 60% lecture, 30% discussion, 10% presentations by students

Work load: 30 pages of reading per week, 8 pages of writing per semester, 2 exams, 1 papers

Grade: 25% mid-semester exam(s), 35% final exam, 10% written reports/ papers, 5% quizzes, 10% in-class presentations, 15% , attendance

Arab 5101 Advanced Arabic I

(Sec 001); max crs 4; prereq—3102 or equiv or instr consent; 3 cr

Instructor: Khalek, Hisham A

Arabic 5101 is a continuation 3102 and the first in a two-course series. The course is designed to reinforce and capitalize on the beginning and intermediate levels to advance language proficiency in formal Arabic. In

speaking, the course trains students to understand and use complex and compound sentences. In reading, the course trains students to apply the dialectical marks when reading from scholarly textbooks and journals. Writing skills are enhanced through the writing of weekly journals, homework assignments, and translations. Listening exercises and drills are utilized in class as well as in the language lab by listening and watching audio and video materials. The course is also aimed at advancing students' knowledge of the cultures of the Arab world. The target audience is undergraduate and graduate students. The text is Al-Kitaab, Part Two, by Brustad, Al-Batal, and Al-Tonsi, aided by audio and video cassettes.
Class time: 20% lecture, 20% cctv, 60% discussion
Work load: 15 pages of reading per week, 30 pages of writing per semester
Grade: 10% class participation, 50% written journals, 20% translations, 15% homework assignments, 5% oral examination

Architecture

110 Architecture Building; 612-624-7866

Arch 1301 Introduction to Drawing in Architecture and Landscape Architecture

(Sec 001-007); Same as: LA 1301; A-F only; meets CLE req of Other Humanities Core; 3 cr
Instructor: STAFF
This course is meant to introduce an architectural way of visual thinking. It is also intended to familiarize the students with basic concepts of visual notation, techniques, and skills. The educational objectives of Arch 1301 are: to enhance student's ability to see visual phenomena such as space, light, and/or form; to teach how to combine seeing with drawing in the way that is specific to the discipline and profession of architecture; to introduce drawing as a process of visual exploration; to introduce architectural concepts and systems of visual notations and the basic drawing skills and techniques (free-hand sketching and hard-line drafting). Note: Requirements may vary depending on the instructor who teaches a particular section.
Class time: 10% lecture, 20% discussion, 70% drawing exercises
Work load: 5 pages of reading per week, 1 review, 3-5 drawing studies (14" x 17" size) per week
Grade: 20% class participation, 60% three graded reviews; 20% final assignment
Exam format: review of drawing

Arch 1401 The Designed Environment

(Sec 001); Same as: LA 1401; A-F only; 3 cr
Instructor: Lavine, Lance A
This course is intended to introduce students with no prior academic experience in the field to the disciplines of architecture and landscape architecture. This class will be based on the assumption that these disciplines are idea making enterprises as are other disciplines in the liberal arts. Its focus will be on the kinds of ideas that our constructed environments make and the way in which buildings and their landscapes participate in forming these constructs. These ideas will be put forth through examination of classic buildings and landscape environments. Exemplar environments will be selected for in-depth study over the course of the semester. This course is intended for undergraduate pre-architecture and pre-environmental design majors as well as non-majors interested in the designed environment.

Arch 3301 Drawing for Design in Architecture

(Sec 001-006); A-F only; prereq—[[1301 or LA 1301], [pre-Arch or Arch or BED]] or instr consent; meets CLE req of Other Humanities Core; 3 cr
Instructor: STAFF
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 dreawings); 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.
Class time: 10% lecture, 20% discussion, 70% drawing exercises
Work load: 10 pages of reading per week, 1 review; 2-6 drawing studies (14" x 17" size) per week
Grade: 25% class participation, 50% final portfolio; 25% final assignment
Exam format: review of drawings

Arch 3401V Honors: Environmental Design and the Sociocultural Context

(Sec 001); prereq—1401 or LA 1401 or instr consent; meets CLE req of Writing Intensive; meets HON req of Honors; 3 cr
Instructor: Robinson, Julia William
Architecture 3401V explores the symbiotic relationship that exists between the design professions and society, specifically the reciprocal relationships between expectations, behavior, knowledge, social order and the specific and particular design of the built environment. The class will examine and define the design profession's responsibility to the human community and its shared environment—global, national, regional, local, and ethnic. The instructors' goal for the class is to help students: Realize that the environment is a cultural medium; that places that both shape, and are shaped by everyday practices; Develop the ability to "read" and interpret places as not only aesthetic, but cultural artifacts.; Apply specific methods and tools in describing analyzing and interpreting spaces, places & structures and; Analyze and critique the design professions and their role in determining the general welfare of society. Through the study of environments students are expected to learn (1)how designed places grow from specific economic, social, ecological, ethical, moral and political forces created by specific social orders at particular moments in time, and (2) how built artifacts effect us through our bodies? sensory perception and movements mediated by our societally-formed expectations.

Arch 3401W Environmental Design and the Sociocultural Context

(Sec 001); prereq—1401 or LA 1401 or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Robinson, Julia William
Architecture 3401W explores the symbiotic relationship that exists between the design professions and society, specifically the reciprocal relationships between expectations, behavior, knowledge, social order and the specific and particular design of the built environment. The class will examine and define the design profession's responsibility to the human community and its shared environment—global, national, regional, local, and ethnic. The instructors' goal for the class is to help students: Realize that the environment is a cultural medium; that places that both shape, and are shaped by everyday practices; Develop the ability to "read" and interpret places as not only aesthetic, but cultural artifacts.; Apply specific methods and tools in describing analyzing and interpreting spaces, places & structures and; Analyze and critique the design professions and their role in determining the general welfare of society. Through the study of environments students are expected to learn (1)how designed places grow from specific economic, social, ecological, ethical, moral and political forces created by specific social orders at particular moments in time, and (2) how built artifacts effect us through our bodiesÆ sensory perception and movements mediated by our societally-formed expectations.

Arch 3411 Architectural History to 1750

(Sec 001, 012); meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3 cr
Instructor: Satkowski, Leon George
This course investigates architechture broadly considered from Egypt to the early 18th century in Europe and the New World. The basic tenet of the course is the study of our constructed environment—buildings, cities, landscapes. Although the course focuces on western architechture, approximately one third of the lectures are devoted to China, Japan, and the Indian suncontinent. Weekly recitations will both augment lectures and introduce students to looking at the built environment in the Twin Cities area. The course is aimed at students planning undergraduate majors in architechture, landscape architecture, art history, and anyone with an interest in the visual arts. Required books will include Trachtenberg and Hyman in the period as a whole, Mac Donald on the Pantheon, Braunfels on cities, Michell on Hindu Temples, and O'Gorman on an introduction to analyzing buildings.
Class time: 66% lecture, 33% discussion
Work load: 100 pages of reading per week, 15 pages of writing per semester, 2 exams, 4 papers, 3 sketch assigments
Grade: 30% mid-semester exam(s), 30% final exam, 20% written reports/papers, 20% quizzes
Exam format: Essay, slide id

Arch 5410 Topics in Architectural History

(Sec 001, 004); max crs 12; 4 repeats allowed; A-F only; prereq—For undergrads 3412, Arch major; for grads M Arch major or instr consent; 3 cr
Instructors: Archer, W John **!!Arthur Motley Exemplary Teaching Award, College of Liberal Arts!!**; Solomonson, Katherine Mary
Suburbia—Over half of all Americans live and work in suburbia. It is a physical and cultural terrain that embodies many of America's most cherished ideals, yet consistently it is blamed for much of what is wrong

with the country. "Suburbia" remains a term that defies simple definition; historically, geographically, politically, demographically, or architecturally. This course will examine the historical circumstances that gave rise to modern suburbia as we know it, beginning in 18th century England and continuing to the present day, with the greatest emphasis on the United States. Among the central issues for examination are: changes in politics, economy, domesticity, family, technology, transportation, design and planning. Equally important is analysis of ways in which suburbia has served to alter the balance of high, low, and popular culture, of politics, of economy, of work, of family, and of domesticity. The course examines specific sites and designs, as well as representations of suburbia in such media as film, television, advertising, popular literature, and music. Lectures and readings are organized around such topics as: suburbia in music and film; house, yard, and neighborhood; family and domesticity; automobile culture; edge cities, new urbanism and sprawl. The course is offered simultaneously through Architecture (Arch) and Cultural Studies and Comparative Literature (CSCL) . It will be co-taught by Kate Solomonson and John Archer.
Class time: 100% lecture
Work load: 75 pages of reading per week, 15 pages of writing per semester, 3 exams, 1 papers, possibly journaling
Grade: 40% mid-semester exam(s), 25% final exam, 25% written reports/ papers, 10% , journaling
Exam format: Essay and short answer

Arch 5424 Renaissance Architecture

(Sec 001); A-F only; prereq—For undergrads 3411, Arch major; for grads M Arch major or instr consent; 3 cr
Instructor: Satkowski, Leon George
The basic tenet of the Renaissance is deceptively familiar— the revival of ancient culture as manifested in literature, the visual arts, and aspects of daily life. This course investigates the role of architecture and urban planning in the 15th and 16th centurey Italy as evidences in the work of Brunelleschi, Albeti, Leonardo Da Vinci, Bramante, Raphael, Palladio and others. Their ahcievements will be studied not only in the familiar context of a rebirth of antiquity but also in terms of the following issues: the survival of medieval forms and techniques, the expanding power of Papacy and other political entitiees, the patronage of families (Medici, Maltestiano, Montefeltro), the redevelopement of major cities (Rome, Florence, Venice) and the creation of new ones (Pienza), and the expansion of dominion into the country side by the design of villas and gardens. The course is aimed at upper level architecture and art history students, and anyone with an interest in early modern history. Readings will include Heydenreich andd Lotz on the period as a whole, Akerman on Michelangelo and Palladio, and Wittkower on architectural theory.
Class time: 100% lecture
Work load: 100/WEEK pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers
Grade: 33% mid-semester exam(s), 33% final exam, 33% written reports/ papers
Exam format: essay

Arch 5571 Architectural Structures I: Wood and Steel Design

(Sec 001); A-F only; prereq—M Arch major or instr consent; 3 cr
Instructor: Franck, Bruno M
Integrates cultural, architectural, and structural designs based on structural mechanics, graphic means to establish the form, and computer-based analysis. The scope is to understand the fundamental and intuitive reasons how to shape structures. The course is for graduate students in architecture or students with previous design experience. The three parts are: 1) fundamentals of building engineering (3 weeks): the function and type of a shelter define its architectural requirements. Building it entails understanding its influence on the environment and identifying all the loads that act upon it; Gravity, snow, wind, earthquake, temperature variations, etc. The loads are caused by, but also influence the form, span, and order of the architectural system. Making small models will explain the notions of stability, strength, stiffness, and show the significance of construction techniques; 2) form finding through structure (7 weeks): Zalewski & Allen's methods of graphic form finding explain the form of pure funicular structures, i.e., structures stressed in pure tension or compression; 3) finite element modeling (5 weeks): the students will then learn to use Visual Analysis (TM) to model and rigorously analyze the structural forms that they first established with the help of graphic form finding.
Class time: 80% lecture, 20% laboratory
Work load: 3 hrs of work per credit, including lecture times
Grade: 30% final exam, 30% special projects, 10% class participation, 30% problem solving
Exam format: Design project- take home

Art

208 Art Building; 612-625-8096

ArtS 1102 Painting

(Sec 001); prereq—1101 or instr consent; Note: Students without stated prerequisites will not be allowed to continue in this course.; meets CLE req of Other Humanities Core; 4 cr
Instructor: Baeumler, Christine Arle
This course is an introduction to the concepts and materials of painting. I place an emphasis on understanding visual concepts related to composition and color. Students will learn a number of technical and conceptual approaches to making paintings. The course will include lecture, critiques, studio time, and visits to art institutions. We will work with a variety of subject matter. This course requires a time commitment due to the nature of the materials. Students will be expected to paint outside of class time. Students are required to take Beginning Drawing (ArtS 1101) as a prerequisite. Introduction to Visual Arts (ArtS 1001) is also recommended. We will be using acrylic paint. Required Text: Painting as a Language; Material, Technique, Form, Content, Jean Robertson and Craig McDaniel.
Class time: 10% lecture, 10% discussion, 80% laboratory
Work load: 20 pages of reading per week, 3 pages of writing per semester
Grade: 10% in-class presentations, 10% class participation, 80% lab work

ArtS 1501 Printmaking

(Sec 001, 002); meets CLE req of Other Humanities Core; 4 cr
Instructor: Krepps, Jerald A
Introduction to expressive applications of printmaking: woodcut, etching, lithography, and screen printing. Historical approaches and use through contemporary materials and concepts. Emphasis on understanding the interrelationship of process, materials, and ideas. This course is designed for undergraduate students across disciplines. it introduces techniques artists employ in the development of visual statements. Hands-on involvement in the production of artwork.
Class time: 40% lecture, 30% discussion, 30% laboratory
Work load: 1 exams, 1 papers, mid-semester & final portfolio
Grade: 15% mid-semester exam(s), 25% class participation, 60% , creative engagement
Exam format: Short answer, multiple choice

ArtS 1505 Papermaking

(Sec 001); meets CLE req of Other Humanities Core; 4 cr
Instructor: Krepps, Jerald A
Introduction to approaches, forms, and aesthetic possibilities of paper as an expressive medium. Studio work in both Eastern and Western traditions and sculptural applications. This course is designed for undergraduate student from various disciplines. It encourages artistic dialogue through studio production of artworks.
Class time: 40% lecture, 30% discussion, 30% laboratory
Work load: 1 exams, 1 papers, Mid-semester & Final Portfolio
Grade: 15% mid-semester exam(s), 25% in-class presentations, 60% , Creative
Exam format: Short answer and multiple choice

ArtS 1801 Ceramics

(Sec 001-003); meets CLE req of Other Humanities Core; 4 cr
Instructor: Hoard, Curtis C
Beginning Ceramics provides a creative experience in art using clay as the creative medium Both hand building and wheel throwing are covered in this class. Students also are involved mixing glazes, engobes, loading kilns, and if interested, firing kilns. There are no prerequisites for ArtS 1801. Class structure is a combination of lectures, hands-on work, and demonstrations. Students work individually as well as in small groups. Outside class work is required and essential.
Class time: 10% lecture, 20% discussion, 70% laboratory
Work load: 1 exams
Grade: 10% quizzes, 20% class participation, 35% lab work, 35% problem solving

ArtS 3505 Papermaking as an Art Form

(Sec 001); prereq—1001, 1505; Note: Students without stated prerequisites will not be allowed to continue in this course.; 4 cr
Instructor: Krepps, Jerald A
This course is designed for the undergraduate student wishing to build on experiences of handpapermaking as a creative engagement. It allows for the focused research into specific interests of the expressive applications of paper.
Class time: 30% lecture, 25% discussion, 45% creative production of artwork
Work load: 1 exams, 1 papers

Grade: 15% mid-semester exam(s), 25% class participation, 60% , creative production
Exam format: short answer, multiple choice

ArtS 5550 Advanced Papermaking
(Sec 001); max crs 12; 4 repeats allowed; prereq—3505 or instr consent; Note: Students without stated prerequisites will not be allowed to continue in this course.; 4 cr
Instructor: Krepps, Jerald A
This course is designed for the undergraduate student wishing to build on experiences of handpapermaking as a creative engagement. It allows for the focused research into specific interests of the expressive applications of paper.

ArtS 5810 Advanced Ceramics
(Sec 001); max crs 12; 4 repeats allowed; prereq—3801, 3802 or instr consent; Note: Students without stated prerequisites will not be allowed to continue in this course.; 4 cr
Instructor: Hoard, Curtis C
Arts 5810 is an advanced ceramic course that is targeted at serious art students that have completed the 1800, 3800, 1401 prerequisites. The course content is generated by the goals and needs of the individual student. A close relationship with the professor is established that supports the aethetic needs of the student. As a foundation text, the student should have a copy of "The Craft and Art of Clay" by Susan Peterson—Prentice Hall Publishers.
Class time: 30% discussion, 70% laboratory
Work load: 12+ hours/week outside class work
Grade: 10% class participation, 90% problem solving
Exam format: critique

Art History

338 Heller Hall, 612-624-4500

ArtH 3009 History of Medieval Art
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: Steyaert, John W
The course surveys major representative works of medieval architecture, sculpture and painting in Europe from early Christian through Gothic (300-1400 A.D.) . The material is presented in lectures illustrated by slides, supplemented by a study of originals in the Minneapolis Institute of Art. Textbook: H.W. Janson, "History of Art." Lectures emphasize : 1) analysis of important works in terms of salient characteristics of subject and style; 2) a discussion of their place in historical development conditioned by changing social function and attitude. Target Audience: All undergraduates
Class time: 75% lecture, 25% discussion
Work load: 55 pages of reading per week, 3 exams, 1 papers
Grade: 40% mid-semester exam(s), 40% final exam, 20% written reports/papers
Exam format: Slide presentation and discussion; essay

ArtH 3015W Art of Islam
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Asher, Catherine B
This course will focus on the Art of Islam from the origins of Islam to the 21st Century, covering much of the Islamic world. Focus will be on architecture and painting, among other arts. The cultural, political and religious milieu, as well as the role of the patron under which art works were created, will be discussed. The material will be approached geographically and chronologically; throughout the course the features and themes that unify the diverse artistic trends and styles produced throughout the Islamic world will be discussed.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 10 pages of writing per semester, 3 exams, 2 short papers
Grade: 25% final exam, 45% written reports/papers, 30% quizzes
Exam format: short essay

ArtH 3975 Directed Museum Experience
(Sec 001); max crs 2; S-N only; prereq—instr consent; 1-2 cr
Instructor: STAFF
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.
Class time: 100% On-site internship.
Work load: Min. 10 hours per week for two credits.
Grade: Grade (S-N) recommended by intern supervisor.

ArtH 5103 Hellenistic and Early Roman Art and Archaeology
(Sec 001); same as CLAS 5103, prereq—Clas/ArtH 3008, jr or instr consent; 3 cr
Instructor: Cooper, Frederick A **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
This course covers artistic endeavor from about 338 B.C. to 30 B.C. That is to say, the period extending from the rise of Alexander the Great to the death of Kleopatra VII a year subsequent to the defeat in 31 B.C. of her and Antony's forces by Octavian at Actium. Alexander the Great (356-323 B.C.) is the formidable personality who not only redefined Greek culture but also was responsible for the diffusion of Hellenism to the east as far away as India and into Egypt. The rulers succeeding Alexander more often than not were self-indulgent patrons of the arts. There is an abundance and a magnificence to this culture which nonetheless gives rise to scholarly controversy. Mixed metaphors in iconography obscure intended meanings; Roman art collecting of Greek originals and the Roman production of copies, fakes, and imitations for this art collector's market leave behind a mixed and confusing legacy. This makes the material of this course both stimulating and challenging.
Class time: 60% lecture, 20% discussion, 20% student reports
Work load: 25 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 paper, reports at museum
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 20% in-class presentations
Exam format: Slides and essay
Course URL: clvl.cla.umn.edu

ArtH 5417 Twentieth Century Theory and Criticism
(Sec 001); prereq—3464 or instr consent; 3 cr
Instructor: Blocker, Jane M
Examines significant trends in 20th century art theory, historical methodology, and criticism through the philosophical paradigms of modernism and post-modernism. Familiarizes students with important critical literature in the arts of the 20th century. Develops critical reading skills by applying specific theoretical frameworks and methodologies to independent research and writing. Considers the historical implication of theories for the production and reception of works of art in this period. Topics include: Greenbergian formalism and its connection to structuralism in literaure; Saussurian semiotics and its application in the visual arts; psychoanalysis and its connection to feminist theory; post-structuralism, post-modernism and deconstruction; Marxism and its relation to the evaluation of material culture; theories of identity including performance studies and queer theory. Requires two formal essays in response to lengthy theoretical questions on pertinent topics, and an independent research paper. Open to upper level undergraudates and graduate students.
Class time: 30% lecture, 70% discussion
Work load: 60-100 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: Essay

ArtH 5431 Age of Revolution: French Painting 1789 to 1870
(Sec 001); 3 cr
Instructor: Weisberg, Gabriel
An examination of the major issues and movements in France and England. Lectures and readings examine neo-classicism and David; romanticism under Delacroix, Gericault, Corot and Ingres. Landscape and peasant painting are studied from Barbizon roots and Millet and the English painters Constable and Turner. The realist movement is examined at length (Courbet and others) through to the pre-Impressionists and the major Impressionist figures. Course texts include: Dorothy Johnson, "Jacques Louis David in Metamorphosis", (Princton, 1993) and Thomas Crow, "Emulation: Making Artists for Revolutionary France", (Yale, 1995). Students from all areas are encouraged; graduate students are welcome and are closely mentored. Course content is developed around lectures, class discussions, and writing assignments, especially a research paper.
Class time: 85% lecture, 15% discussion
Work load: 40 pages of reading per week
Grade: 30% mid-semester exam(s), 40% final exam, 30% written reports/papers
Exam format: Slide essays

Asian Languages and Literatures

453 Folwell Hall; 612-625-6534

ALL 1905 Freshman Seminar: Gender and Gender Impersonation in Japanese Art
(Sec 001); max crs 6; A-F only; prereq—Fr or no more than 36 cr; 3 cr
Instructor: Morinaga, Maki
Gender impersonation prevails in Japanese literature and theater. For example, while the kabuki theater is well known for its female impersonators, the Takarazuka revue, an all female theater troupe, is popular mainly because of its male impersonators. In the realm of literature, memoirs flourished due in large part to prolific ladies-in-waiting at royal court, and yet the one who is said to have initiated such a literary tradition was a male aristocratic poet who posed as a woman. This course aims to contemplate gender in this cultural context, a context so rich in terms of gender. The ultimate goal of such an intellectual enterprise lies not only in a basic knowledge of specific examples of gender impersonation, but also in an applicable working paradigm in which we can further explore the topic of gender. Accordingly, this course has two interlocking aims. First, it provides an understanding of gender impersonation in the context of Japanese literature and theater. Second, we will be engaged in a theoretical inquiry into "gender" and "gender impersonation": what differences and similarities are to be found in these two concepts? Audio-visual materials will be used whenever available and appropriate.

ALL 1909W Freshman Seminar: Taiwan: Culture and Ethnicity
(Sec 001); A-F only; prereq—FR or no more than 36 cr; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Allen, Joseph R
In this course you will learn about cultural and ethnic identity in Taiwan, which has one of the most complex and vibrant societies in East Asia. At the same time we will discuss how identity issues, how we know "who we are" impact our own lives, no matter our background. We will explore these issues through film, stories, essays, and other media. The course will focus primarily on discussion of readings, group projects, and individual analysis and writing. No prior knowledge of Taiwan is expected.

Astronomy

356 Tate Laboratory of Physics; 612-624-0211

Ast 1001 Exploring the Universe
(Sec 001-004, 101-129); Credit will not be granted if credit has been received for: AST 1011, AST 1011H; prereq—=1011; meets CLE req of Environment Theme; meets CLE req of Physical Science Lab Core; 4 cr
Instructor: STAFF
This course is a scientific exploration of the human place in the universe. We study the origin and history of the Universe and the formation of the Earth and the solar system. We compare the Earth's properties with those of the other planets and explore how the heavens have influenced human thought and action. This course includes study of the properties of light and matter and the tools astronomers use to measure radiation from celestial sources. The course also covers exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. Although largely descriptive, the course will occasionally require the use of junior-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.
Class time: 60% lecture, 15% discussion, 25% laboratory
Work load: 20 pages of reading per week, 10 pages of writing per semester, 3 exams, 5 papers, 12 labs
Grade: 35% mid-semester exam(s), 25% final exam, 10% written reports/papers, 10% special projects, 20% lab work
Exam format: multiple choice, short answer, essay
Course URL: www.astro.umn.edu

Ast 1005 Descriptive Astronomy
(Sec 001); prereq—credit will not be granted if credit received for: 1001 or 1011H; non-science major; 3 cr
Instructor: STAFF
This course is a scientific exploration of the human place in the universe. We study the origin and history of the Universe and the formation of the Earth and the solar system. We compare the Earth's properties with those of the other planets and explore how the heavens have influenced human thought and action. This course includes study of the properties of light and matter and the tools astronomers use to measure radiation from celestial sources. The course also covers exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. 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.
Class time: 90% lecture, 10% discussion
Work load: 20 pages of reading per week, 3 exams
Grade: 65% mid-semester exam(s), 35% final exam
Exam format: multiple choice, essay, or short answer
Course URL: www.astro.umn.edu

Ast 1011H Exploring the Universe, Honors
(Sec 001); Credit will not be granted if credit has been received for: AST 1001, AST 1001, AST 1001; prereq—credit will not be granted if credit received for: 1001; high school trigonometry, high school physics or chemistry; meets CLE req of Environmental Theme; meets CLE req of Physical Science/Lab Core; meets HON req of Honors; 4 cr
Instructor: STAFF
This course is a scientific exploration of the human place in the universe. We study the origin and history of the universe and the formation of the Earth and the solar system. We compare how the study of the heavens has influence human thought and action. This course includes study of the properities of light and matter and the tools astronomers use to measure radiation from celestial sources. The course also covers exciting contemporary topics such as black holes, the expansion of the universe and the search for extraterrestrial life. Although largely descriptive, the course will occasionally require the use of junior high level mathematics. Lectures are three days per week; a fourth day each week of one or two hours is spent in small groups working on a lab project. This course is an honors version of Ast 1001.
Class time: 60% lecture, 15% discussion, 25% laboratory
Work load: 20 pages of reading per week, 3 exams, 12 labs
Grade: 20% mid-semester exam(s), 40% final exam, 9% written reports/papers, 14% special projects, 17% lab work
Exam format: short answer, multiple choice and/or essay
Course URL: www.astro.umnm.edu

Ast 2990 Directed Studies
(Sec 001); max crs 5; prereq—1 yr calculus, Phys 1302, instr consent; 1-5 cr
Instructor: STAFF
Independent, directed study in observational and theoretical astrophysics. Arrange with a faculty member.

Ast 4021 Galaxies and the Milky Way
(Sec 001); prereq—2001, Phys 2601 or instr consent; 4 cr
Instructor: STAFF
This is a course on extragalactic astronomy plus some galactic structure. It covers the structure of galaxies, their dynamics, luminosities, and evolution, and the larger scale structures of the universe. This course is intended for first and 2nd year graduate students and advanced undergraduate students who have had the introduction to astrophysics class, AST 2001. It is taught primarily as a lecture class, but it includes a significant component of small group work.
Class time: 100% lecture
Work load: 15 pages of reading per week, 2 exams, 10 papers
Grade: 20% mid-semester exam(s), 20% final exam, 20% special projects, 40% problem solving
Exam format: essay
Course URL: www.astro.umn.edu

Ast 4990 Directed Studies
(Sec 001); max crs 5; prereq—2001, instr consent; 1-5 cr
Instructor: STAFF
Independent, directed study in observational and theoretical astrophysics. Arrange with a faculty member.

Ast 4994W Directed Research
(Sec 001); max crs 5; prereq—instr consent; meets CLE req of Writing Intensive; 3-5 cr
Instructor: STAFF
Independent research in observational or theoretical astrophysics. Senior Thesis for undergraduate astrophysics majors. Arrange with a faculty member.

Biochemistry

140 Gortner Lab of Biochemistry: 612-624-7755

BioC 2011 Biochemistry for the Agricultural and Health Sciences
(Sec 001); prereq—=BioC1012, 3001; Chem 1011, Biol 1009; not for biology majors; 3 cr
Instructor: Dempsey, Mary E
This course provides a survey of biochemistry. It is intended for students planning to major in the area of the health sciences or agriculture. The topics covered include: review of relevant principles of general chemistry; organic molecules and their reactions pertinent to biochemistry; the structure, function and metabolism or biochemical molecules; principles of molecular biology and their applications; regulation of metabolism and cell signaling; use of biochemical principles to understand human nutrition; and the biochemistry of muscle contraction, bones and teeth, vision, and nerve conduction.
Class time: 85% lecture, 15% discussion
Work load: 15 pages of reading per week, 4 exams
Grade: 33% mid-semester exam(s), 40% final exam, 27% quizzes
Exam format: Multiple choice, matching, problems, and true/false
Course URL: cbs.umn.edu/class/bioc/2011/dempsey

BioC 3960 Research Topics in Biochemistry
(Sec 001); max crs 2; S-N only; prereq—Interest in a biochemistry major; 1 cr
Instructor: Lovrien, Rex E
Various faculty in biochemistry/biophysics describe their research (in outline) and its rationale. The intent is for advanced undergraduates to estimate in which laboratories they might want to carry out a research project. Principal requirments are to have at least a year of chemistry, including organic chemistry, and past or current enrollment in a biochemistry lecture series. If registered for BioC 3960, attendance at all sessions is required, or making a short, written report and summary of research based on the faculty's review or papers, in case of an absence. There are no tests.
Exam format: No exams.

BioC 4025 Laboratory in Biochemistry
(Sec 001); prereq—3021 or 4331 or Biol 3021; 2 cr
Instructor: Fuchs, James A
Theory and principles of the fundamental techniques used in the modern biochemistry laboratory, as well as the practical use of these techniques during the laboratory part of the course. The course covers most of the material in the textbook, "Fundamental Laboratory Approaches for Biochemistry and Biotechnology", by A.J. Ninfa and D.P. Ballow. The course covers buffers, pH, spectrophotometry, chromatography, gel electrophoresis, protein purification, enzyme kinetics, ligand binding, Recombinant DNA techniques, polymerase chain reaction and using the Internet for biochemical research.
Class time: 25% lecture, 75% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers
Exam format: Essay

BioC 4521 Introduction to Physical Biochemistry
(Sec 001); prereq—Chem 1022, Math 1272, Phys 1202; 3 cr
Instructors: Bloomfield, Victor A; Barry, Bridgette A
The course objective is to introduce and develop the most important concepts of physical chemistry for biochemistry, in a way that emphasizes physical ideas and biochemically relevant examples, rather than mathematical rigor. Desired outcomes will be 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 phycical biochemistry. Prof. Bloomfield will teach the first half of the course, and Prof. Barry will teach the second half. Grades will be determined by three 50-minute in-class mid-term exams and a 50-minute final (effectively a mid-term on the last part of the course) at the scheduled final exam time.

BioC 4793W Directed Studies: Writing Intensive
(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; meets CLE req of Writing Intensive; 1-7 cr
Instructor: STAFF
Individual study on selected topics of problems. Emphasizes readings, use of scientific literature. Writing Intensive.

BioC 4794W Directed Research: Writing Intensive
(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; meets CLE req of Writing Intensive; 1-7 cr
Instructor: STAFF
Laboratory or field investigation of selected areas of research. Writing Intensive.

BioC 4993 Directed Studies
(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; 1-7 cr
Instructor: STAFF
Individual study on selected topics or problems with emphasis on selected readings and use of scientific literature.

BioC 4994 Directed Research
(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; 1-7 cr
Instructor: STAFF
Laboratory or field investigation of selected areas of research.

BioC 5401W Advanced Metabolism and Its Regulation
(Sec 001); prereq—3021 or 4331 or Biol 3021; meets CLE req of Writing Intensive; 3 cr
Instructor: Nelsestuen, Gary L
This class is designed for students who have had an undergraduate course in Biochemistry and want additional instruction in metabolism and/or enzymology. There are three units: Metabolism, Energetics; and Regulation. Metabolism avoids memorization by providing training in recognition of patterns of metabolism using reaction mechanism. These patterns help explain the metabolic capabilities of most life forms, including animals, plants and microbes. They also help explain diverse topics, such as the action of mutagens on DNA and the reasons that certain materials accumulate in the environment. The section on Energetics emphasizes that this apparently complex topic is also governed by very simple patterns. For example, the solvent water often dominates energetic considerations of both biodegradation and biosynthesis pathways. Direction at a pathway flow can often be predicted from simple thermodynamic relationships and inspection of reactant properties. Common derivations for equilibrium and dynamic measurements are presented in a manner that emphasizes their common features. Finally, Regulation of metabolism is discussed from papers, lectures and student presentations. Again, this concentrates on the growing of behaviors common to all life systems You can visit the web site for the syllabus and further descriptions. This is a writing intensive class.
Class time: 70% lecture, 10% discussion, 20% Student presentations
Work load: 20 pages of writing per semester, 1 exams, 1 papers
Grade: 60% mid-semester exam(s), 30% written reports/papers, 10% problem solving
Exam format: Essay, including structure and equations
Course URL: biosci.cbs.umn.edu/class/bioc/5401/gln/default.html

Biology

123 Snyder Hall: 612-624-2244

Biol 1001 Introductory Biology I: Evolutionary and Ecological Perspectives
(Sec 001, 050, 090); prereq—credit will not be granted if credit received for: 1009; meets CLE req of Biological Sciences/Lab Core; meets CLE req of Environment Theme; 4 cr
Instructor: STAFF
This course is intended for non-biology majors who need to satisfy CLE requirements for a biology course with lab and also for biology majors as the first course of a two-semester introductory biology sequence. This course 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. Multimedia technology is integrated throughout the lecture and laboratory curriculum. Laboratory is in a 2-hour block, which is designed to involve students in investigation, problem solving, and discovery. Students work in small groups with computer simulation programs and other activities involving living organisms. Computer exercises allow students to investigate principles of genetics, classification of organisms based on evolutionary relationships, evolutionary mechanisms, population ecology, and others.
Class time: 60% lecture, 40% laboratory
Work load: 40 pages of reading per week, 10 pages of writing per semester, 3 exams, 3 papers, 2 homework assignments

Grade: 33% mid-semester exam(s), 25% final exam, 15% written reports/ papers, 16% quizzes, 4% in-class presentations, 7% problem solving, homework
Exam format: multiple choice lecture exams
Course URL: genbiol.cbs.umn.edu

Biol 1002W Introductory Biology II: Molecular, Cellular, and Developmental Perspectives

(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 1009; [1001 or equiv], Chem 1021; meets CLE req of Writing Intensive; 5 cr
Instructor: STAFF
Biol 1002 is intended for undergraduate biology majors. A background in general chemistry is assumed with some basic knowledge of organic chemistry. This course examines the organization of living cells, the properties and functions of biological molecules, and the development of multicellular organisms. The production and utilization of biological energy are explored at the cellular level and the similarity found in all living organisms is stressed. Genetics and development are explored at both the cellular and the molecular level. Students learn how the genome is organized, how it functions in the cell, and how this subsequently affects the whole organism. Current topics such as genetic diseases and genetic engineering are discussed. The lecture/recitation sections are integrated with laboratory exercises to give students basic experience with the methods of modern molecular biology. Student participation is encouraged.
Class time: 50% lecture, 50% laboratory
Work load: 50 pages of reading per week, 3 exams, two three-hour labs per week; written lab reports; lab notebooks; oral presentations; occasional qui
Grade: 30% mid-semester exam(s), 15% final exam, 50% lab work, 5% problem solving
Exam format: short answer, multiple choice, fill-in, matching
Course URL: www.cbs.umn.edu/class/biol/1002/

Biol 1009 General Biology

(Sec 001, 050, 090); prereq—credit will not be granted if credit received for: 1001, or 1002; high school chemistry; 1 term college chemistry recommended; meets CLE req of Biological Sciences Lab Core; 4 cr
Instructor: STAFF
An introduction to the major concepts of modern biology. Topics include molecular structure of organisms, cell structure and function, energy recruitment and utilization, cellular reprodution, flow of genetic information through organisms and populations, principles of inheritance, development, origin of life, ecology, and evolution. Includes lab. Course satisfies the CLE lab distribution requirement in biology in a single semester. Intended for any student (major or non major) who requires a comprehensive survey of biology in a single semester. Tutorial aid is available in P-176 Kolthoff during certain hours each day. Multimedia technology is integrated throughout the lecture and laboratory curriculum. Instructors integrate examples from a library of over 6000 digital photos, illustrations, animations, and video clips. An extensive web site (genbiol.cbs.umn.edu) has been developed to deliver course information, as well as course content.
Class time: 57% lecture, 43% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers, 6 prelab quizzes, 3 major quizzes
Grade: 40% mid-semester exam(s), 25% final exam, 8% written reports/ papers, 27% quizzes
Exam format: multiple choice
Course URL: genbiol.cbs.umn.edu

Biol 1009H Honors: General Biology

(Sec 001); prereq—credit will not be granted if credit received for: 1001, 1002; high school chemistry, honors; one term of college chemistry recommended; meets CLE req of Biological Sciences/Lab Core; meets HON req of Honors; 4 cr
Instructor: STAFF
Student may contact the instructor or department for information.
Class time: 57% lecture, 43% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers
Grade: 40% mid-semester exam(s), 25% final exam, 8% written reports/ papers, 27% quizzes
Course URL: genbiol.cbs.umn.edu

Biol 1020 Biology Colloquium

(Sec 001-003); max crs 2; S-N only; 1 cr
Instructor: Hanna, Kathryn L
This is a unique class, organized and run by upper division students, recommended for those who wish to explore the various fields and career alternatives in the biological sciences. The class gives students the chance to interact with biology faculty and students with similar interests. The Colloquium offers both large-group seminars, featuring prominent scientists discussing their research programs, and small-group tours to research facilities on and off campus, such as the Raptor Rehabilitation Center, Cancer Center, or behind-the-scenes at the Minnesota Zoo. Socially, Colloquium students always find time for fun, too, whether on a field trip, studying together in the Colloquium student room, or participating in the optional Itasca weekend. Students may begin the Colloquium class any semester and take it two times.
Class time: 40% lecture, 10% discussion, 50% Visits to labs and other field trips
Work load: 14 pages of writing per semester
Grade: 50% written reports/papers, 50% class participation
Course URL: biosci.cbs.umn.edu/bcq/

Biol 1093 Biology Colloquium: Directed Study

(Sec 001); S-N only; prereq—1020 and concurrent enrollment 1020; 1 cr
Instructor: Hanna, Kathryn L
This course allows students early in their studies to explore various biology disciplines through an independent project under the supervision of a faculty sponsor. The Colloquium student leaders will help you find the biology-related project that fits your interests and allows you to earn University credit. To be eligible, students must have taken one previous Biology Colloquium class (Biol 1020) and also be concurrently enrolled in the Biology Colloquium (Biol 1020).
Class time: 100% Independent project
Course URL: biosci.cbe.umn.edu/beq/

Biol 1101W Heredity and Human Society

(Sec 001); prereq—credit will not be granted if credit received for: 4003 or GCB 3022; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Fan, David P
Texts: Human Genetics: Concepts and Applications (4th Ed.) by R. Lewis; Topics covered: Cells and development; Principles of inheritance—Ethics of abortions for fetuses with genetic diseases; Sex and complex traits—Ethics of prenatal sex selection, chromosome screening for athletic competitions; DNA and gene function—Ethics in DNA testing in forensic medicine; Mutations and chromosomal abnormalities—Ethics of Downs syndrome; Genes in populations and evolution—Ethics of IQ testing; Immunity and cancer—Ethics of insurance payments for costly experimental techniques for cancer treatment; Viruses and AIDS—Ethics of coercive methods to block the spread of the HIV virus; New topics in genetics—Ethics of genetic engineering Intended audience: Undergraduate non-biology majors. This course will be web enhanced but the URL is not yet available.
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week, 30 pages of writing per semester, 3 exams, 2 papers
Grade: 50% mid-semester exam(s), 25% final exam, 25% written reports/ papers
Exam format: multiple choice

Biol 1905 Freshman Seminar for the Biological Sciences

(Sec 001-007); A-F only; 1 cr
Instructors: Anderson, John Seymour **!!Dagley Distinguished Teaching Award; Morse Alumni Award!!**; Roon, Robert J
Genetic Diseases—Why do some babies with genetic disorders die before the age of 2? Mutated genes are responsible for a variety of human diseases such as sickle cell anemia, phenylketonuria, Tay-Sachs disease, and Downs syndrome. In most syndromes, the mutation in the gene results in the loss or alteration of a specific protein. This in turn disrupts the normal function of some bichemical process. We will explore representative genetic disorders and study specific genetic malfunctions, comparing them to normal function. We will also examine the prospects modern biological science offers for curing or compensating for these disorders. The instructors will provide model reports at the beginning of the semester. Later, students will participate in teams of two or three to present oral reports to the rest of the class on other genetic diseases of interest. Preparation for these reports present an opportunity to explore the subject matter about a

particular genetic disease from a number of disciplinary points of view, and in as much detail as possible. Ethical issues relating to diagnosis and possible clinical and genetic remedies will be discussed. The class will also serve as an orientation to the University environment and discuss topics such as academic survival skills. This class is targeted to incoming freshmen who have a strong interest in the molecular aspect of the biosciences and may be interested in eventually pursuing a career in biochemistry, genetics or medicine.
Class time: 15% lecture, 25% discussion, 60% student oral presentations
Work load: 2-3 papers (short position papers on issues); One major library/internet research project ending in
Grade: 30% written reports/papers, 40% in-class presentations, 30% class participation

Biol 2005 Animal Diversity Laboratory

(Sec 001-011); prereq—credit will not be granted if credit received for: 2012; 3211 or concurrent enrollment 3211; 1 cr
Instructor: STAFF
This is a laboratory course and requires dissection and direct observation of animal diversity with emphasis upon morphology. The phylogenetic survey, from unicellular protists through the vertebrates, includes a wide array of organismal variation. Special attention is placed upon mammalian anatomy through dissection of the fetal pig. Students develop an understanding of the patterns and complexities of animal diversity through the experience of hands-on laboratory exercises.
Class time: 5% discussion, 95% laboratory
Work load: 15 pages of reading per week, 4 exams
Grade: 55% mid-semester exam(s), 37% final exam, 8% quizzes
Exam format: multiple choice/practical
Course URL: www.cbs.umn.edu/class/biol/2005

Biol 2022 General Botany

(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 2822; 1001 or 1009; 3 cr
Instructor: Ball, Kathleen Ann
General botany is intended for undergraduates who need a basic course in plant biology. Topics include the structrue and function of plants; including anatomy, physiology, transport, growth, development and ecology. Approximately half the course is dedicated to a study of the various plant phyla (bryophytes, lower vascular plants, ferns, gymnosperms and flowering plants) in addition to a survey of organisms that are allied with plants, like algae, photosynthetic protista and fungi. In the laboratory, students will have a hands-on experience with the basic biological concepts of plant life and become familiar with living representatives of each group of organisms. Students spend two hours in lecture and three hours in lab weekly.
Class time: 40% lecture, 60% laboratory
Work load: 50-60 pages of reading per week, 3 exams, 6 lab quizzes, 2 mid-terms and a final
Grade: 32% mid-semester exam(s), 27% final exam, 40% quizzes
Exam format: Mixed

Biol 2032 General Microbiology with Laboratory

(Sec 001); Same as: VPB 2032, MICB 2032; prereq—1002 or 1009, Chem 1022, intended primarily for non-microbiology majors; 4 cr
Instructor: Bey, Russell F
This course is intended for NON microbiology majors. General microbiology (Biol 2032) is intended for undergraduate students whose programs of study requires an introductory microbiology course as prerequisite for more advanced study or pre-professional students desiring some background knowledge in microbiology. The course uses lecture and some discussion sessions to provide students with an overview of the fundamental principles of microbiology. Some areas covered are bacterial morphology, metabolism, growth and genetics, introduction to recombinant DNA technology, biology of viruses and fungi, control of microorganisms, host-microbe interactions, immunity and the immune system, microorganisms and disease, applied microbiology. A laboratory manual is required for those taking the course with laboratory.
Class time: 65% lecture, 10% discussion, 22% laboratory, 3% Review from previous class
Work load: 0-50 pages of reading per week, 3 exams
Grade: 50% mid-semester exam(s), 25% final exam, 25% lab work
Exam format: Multiple choice, essay, fill in the blank/essay—depends on class size

Biol 2960H Explorations in the Biological Sciences: Honors Colloquium

(Sec 001, 002); A-F only; prereq—CBS honors program, soph, dept consent; meets HON req of Honors; 1 cr
Instructor: Koukkari, Willard L **!!Morse Alumni Award!!**
Provides an opportunity for students in the lower division honors program to explore various areas of biological research, interact with scientists and fellow students, and to prepare an in-depth review paper.
Grade: 20% quizzes, 5% class participation, 45% , Review paper; 30% Assignment and group actions

Biol 3101 Introduction to Neuroscience I: From Molecules to Madness

(Sec 001); Same as: PHSL 3101, NSCI 3101; A-F only; prereq—credit will not be granted if credit received for: NSci 3101, Phsl 3101; 3021 or BioC 3021 or BioC 4331; 3 cr
Instructors: Miller, Robert F; Branton, W Dale; Mermelstein, Paul G
This course serves as an introduction to the basic principles of cellular and molecular neurobiology and nervous systems. The main topics include: Organization of simple networks, neural systems and behavior; how the brain develops and the physiology and communication of neurons and glia; the molecular and genetic basis of cell organization; ion channel structure and function; the molecular basis of synaptic receptors; transduction mechanisms and second messengers; intracellular regulation of calcium; neurotransmitter systems, including excitation and inhibition, neuromodulation, system regulation and the cellular basis of learning, memory and cognition. The course is intended for students majoring in neuroscience, but is open to all students with the required prerequisites. The course consists of three hours of lecture per week and approximately six hours of preparation and study per week for students.
Class time: 100% lecture
Work load: 6 hours/week
Grade: 33% mid-semester exam(s), 67% final exam
Exam format: Multiple choice
Course URL: www.neurosci.umn.edu/courses/3101/3101-home.html

Biol 3211 Animal Physiology

(Sec 001); prereq—[1002 or 1009], Chem 1021; concurrent enrollment 2005 strongly recommended; 3 cr
Instructor: Goldstein, Stuart F
The main objective is to describe the various functions carried out in animals (e.g. respiration, movement), the general ways in which these functions are carried out (e.g. specialized gas-exchange surfaces, acto-myosin complexes), and particular systems used by various animals (e.g. gills, muscles). It is primarily a course in comparative animal physiology. Systems are described at a variety of levels—organismal, organ, tissue, cellular, and subcellular. There are two main goals of the course. One is to acquaint students with specific physiological systems. The other is to give students an overview of animal systems so that they can visualize them in a way that integrates the various levels. The hope is that as students are introduced to more detailed descriptions of cellular and subcellular levels of organization (e.g. receptor-ligand interactions), in later courses, they will see how these levels fit into the macroscopic levels.
Class time: 3 hours/week lecture
Work load: 6 hours/week on readings in order to prepare for exams

Biol 3301 Biology of Microorganisms

(Sec 001); Same as: MICB 3301; A-F only; prereq—credit will not be granted if credit received for: MicB 3301; [1002, Chem 2302] or [1009, [3021 or BioC 3021 or concurrent enrollment in 3021 or concurrent enrollment in BioC 3021]]; 5 cr
Instructor: Dworkin, Martin
Structure/Function; Taxonomy/Phylogeny; Physiology; Metabolism, Genetics of bacteria; structure and molecular biology of viruses; Ecology; pathogenesis of microbes; applied microbiology lecture and laboratory; Biology and biochemistry prerequisites; course is intended for biology and microbiology majors as well as pre-professional students in medically-related areas.
Class time: 60% lecture, 40% laboratory
Work load: 30-50 pages of reading per week, 5 pages of writing per semester, 4 exams, 0 papers, Oral presentations
Grade: 30% mid-semester exam(s), 30% final exam, 40% lab work
Exam format: Short answer
Course URL: www.microbiology.med.umn.edu/programs/CoursesF00/MicB3301/syllabus00.html

Biol 3407 Ecology
(Sec 001); Credit will not be granted if credit has been received for: BIOL 5407, BIOL 5407, BIOL 5407, BIOL 5407, BIOL 5407; prereq—credit will not be granted if credit received for: 3807, 5407, or EEB 3001; [1001 or 1009 or equiv], [Math 1142 or Math 1271 or equiv]; meets CLE req of Environment Theme; 3 cr
Instructor: Tilman, G David
Humans have become the dominant biological force on the earth, but the long-term implications of current social actions and policies for the quality and sustainability of life on earth are poorly understood. This course explores the scientific principles of population growth, population interactions, and of ecosystem functioning, and applies these to ecological issues of both scientific and societal importance. The issues range from the regulation of population size (including the size of global human population), to the origins, dynamics, and impacts of human diseases, to the extent and likely consequences of human domination of global ecosystems (including impacts on climate and on global biogeochemical cycles), to the factors controlling invasions by exotic organisms and their impacts on ecosystems, to the effects of habitat fragmentation on biological diversity, to the role of biological diversity in the sustainability and stability of ecosystems. These topics are explored using a blend of mathematical theory and results of both recent and classical experimental and observational studies. Laboratory sessions have hands-on studies in natural experimantal ecosystems.
Class time: 60% lecture, 20% discussion, 10% laboratory, 10% Computer exercises
Work load: 30-40 pages of reading per week, 3 exams, 10 weekly problem sets
Grade: 50% mid-semester exam(s), 25% final exam, 10% quizzes, 8% class participation, 7% problem solving
Exam format: Combination of essay, short answer, multiple choice

Biol 3600 Directed Instruction
(Sec 001); max crs 6; 6 repeats allowed; S-N only; prereq—1020, upper div, application, instr consent; up to 4 cr may apply to major; 1-2 cr
Instructor: Hanna, Kathryn L
This course allows students to gain experience in organizing, leading and evaluating a small group of students by becoming a Student Leader for the Biology Colloquium class (Biol 1020). Biology Colloquium Student leaders attend the weekly 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. It is required that Student Leaders have been a student in the Biology Colloquium for two semesters and be in satisfactory progress within their degree objectives. An application is required and is available in the CBS Student Services Office in 223 Snyder Hall, St. Paul campus or in the Biology Colloquium room, 303 Bell Museum, Minneapolis campus.
Course URL: biosci.cbe.umn.edu/beq/

Biol 3610 Internship: Professional Experience in Biological Sciences
(Sec 001); max crs 6; 6 repeats allowed; S-N only; prereq—Acceptance into CBS Professional Learning Experience Program, internship workshop, college consent; up to 4 cr may apply to major; 1-6 cr
Instructor: STAFF
Undergraduate students can earn credit for a structured professional learning experience (internship) that matches their academic and/or career goals in life science with off campus learning opportunities. Internships in industry, non-profit organizations, and government agencies are available through the CBS Internship Program. Credit number is variable and will be based on time spent on-site, however students must commit a minimum of 10 hours/week/semester. Students will submit a Learning Agreement Form developed in consultation with the Director of Undergraduate Studies, or designate, Coordinator of the CBS Internship Program, and the on-site internship supervisor. Attendance at a pre-internship workshop is required in order to register for credit. S/N only.
Class time: 100% Off-campus internship.

Biol 4003 Genetics
(Sec 001, 002); Credit will not be granted if credit has been received for: GCB 3022, GCD 3022; prereq—Biol/BioC 3021 or BioC 4331; 3 cr
Instructor: STAFF
Introduction to the nature of genetic information, its transmission from parents to offspring, its expression in cells and organisms, and its course in populations. The course is intended for majors in biology or departmental degree programs. An understanding or undergraduate level biochemistry is a prerequisite.
Class time: 90% lecture, 10% discussion
Work load: 40 pages of reading per week, 0 pages of writing per semester, 4 exams, problems
Grade: 20% mid-semester exam(s), 40% final exam
Exam format: problem solving, multiple choice
Course URL: www.cbs.umn.edu/class/biol/4003

Biol 4004 Cell Biology
(Sec 001, 002); prereq—Biol/BioC 3021 or BioC 5331, Biol 4003 or BioC 4332; 3 cr
Instructor: STAFF
Processes fundamental to cells emphasizing eukaryotic cells. Assembly and function of membranes and organelles. Cell division, cell form and movement, intercellular communication, transport, and secretion pathways. Some discussion of specialized cells including cancer cells and differentiated cells. This course will be web enhanced. The URL varies with instructor.
Class time: 80% lecture, 20% discussion
Work load: 50 pages of reading per week, 4 exams, 0 papers
Grade: 60% mid-semester exam(s), 40% final exam
Exam format: multiple choice, short essay

Biol 5501 Biological Collections: Curation and Management
(Sec 001); prereq—2012 or 2022 or 3007 or 3211; 1 cr
Instructor: Cholewa, Anita F
The roles and value of biological collections are discussed in the context of natural history museums and conservation of the biodiversity record. Some of the topics include specimen preperation and curation, data access and ethics, and legal issues. Class will visit the collections of the Bell Museum of Natural History and participate in various curatorial activities. Course is a blend of hands-on activities, tours, and lectures. Grade will be based on weekly participation in activities, independent project, and essay assignments. Various readings related to museums will provide additional background. Course is intended for those studying towards or already pursuing careers in biological systematics, natural resource conservation and interpretation, or museology (must be at least division).
Class time: 30% lecture, 70% Hands-on activities
Work load: 4 pages of reading per week, 1 papers, 2 projects (in-class and one independent)
Grade: 33% written reports/papers, 33% special projects, 33% class participation

Biomedical Engineering
7-114 Basic Sciences & Biomedical Eng; 612-626-3332

BMEn 3201 Bioelectricity and Bioinstrumentation
(Sec 001); A-F only; prereq—[Math 2263 or Math 2374], Phys 1302, [BMEN upper div or dept consent]; 4 cr
Instructor: Steinmetz, Peter Nathan
This course is targeted to sophomore level undergraduates with a professional interest in biomedical engineering. The overall goals of this course are to teach the fundamental principles of biomedical instrumentation and bioelectricity, thus enabling the student to study specific types of instruments independently.Major topics will include basic electronics, analog and digital signal processing, biological measurements, electrical properties of biological tissues and biopotentials. Applications in both lecture and the laboratory will include measurement of blood pressure and blood flow, skin conductance, respiratory flow and pressure and brain rhthyms.The primary textbook is Principles of Biomedical Instrumentation and Measurement, R. Aston (Merrill/MacMillan), 1990.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 3 exams
Grade: 25% mid-semester exam(s), 25% final exam, 25% quizzes, 25% lab work
Exam format: Design and derivations.

Biosystems and Agricultural Engineering
213 Biosystems & Agricultural Engineering; 612-625-7733

BAE 1011 Biosystems and Agricultural Engineering Orientation
(Sec 001); S-N only; 1 cr
Instructor: Morey, R Vance
Introduction to biosystems and agricultural engineering professions through readings and discussions by faculty, practicing engineers and fellow students. Orientation to the program, including curriculum, intern, undergraduate research, and honors opportunities. Discussion of ethics, safety, and environmental issues in engineering. Course objectives/outcomes: Students will: 1. Get to know University of Minnesota faculty and professionals working outside the University. 2. Become more familiar with the range of subject matter and career opportunities in biosystems and agricul-

tural engineering. 3. Learn about the biosystems and agricultural engineering curriculum, honors program, internships, and undergraduate research opportunities. 4. Learn about ethical and social issues facing the profession.
Class time: 50% lecture, 50% discussion, Two written assignments
Grade: 15% written reports/papers, 10% class participation, 75% , Class attendence; S/N grading

BAE 2113 Introduction to Design
(Sec 001); A-F only; prereq—Math 1271; 3 cr
Instructor: Morey, R Vance
Students will: 1) Develop design skills through lecture, discussion, and participation in a design project. 2) Gain an understanding of the importance of safety and health considerations in design and apply these concepts to a design project. 3) Learn standard engineering economic analysis techniques and apply these techniques to feasibility analysis for a design project. 4) Develop skills in engineering graphics and computer drafting, and apply them to a design project. 5) Enhance their teamwork skills through participation in design teams. 6) Enhance their communication skills through development of written, graphic, and oral presentations related to their design projects.
Class time: 40% lecture, 20% discussion, 40% laboratory
Work load: 15 pages of reading per week, 4 exams, Project report
Grade: 25% mid-semester exam(s), 15% final exam, 15% written reports/papers, 5% in-class presentations, 25% lab work, 15% problem solving
Exam format: Problems, essay

BAE 3023 Engineering Principles of Soil-Water-Plant Processes
(Sec 001); prereq—Biol 1009, [CE 3502 or concurrent enrollment CE 3502]; 3 cr
Instructor: Clanton, Chuck
Conceptual outline/topics: 1) Soil physical properties; 2) Basic soil calculations; 3) Soil survey books, USGA maps; 4) Particle distribution; 5) Temperature and heat flow; 6) Soil development; 7) Soil moisture and moisture potential; 8) Moisture movement-saturated flow; 9) Moisture movement-unsaturated flow; 10) Moisture infiltration; 11) Soil strength, compaction; 12) Soil biology, organics, nutrients, pesticides; 13) Plant fun, facts and statistics; 14) Plant growth and nutrition; 15) Energy in agriculture; 16) Plant microclimate; 17) Plant stress; 18) Water pollution effect on plants, constructed wetlands for water quality; 19) Air pollution effects on plants; 20) Cropping systems; 21) Rain Forest; 22) Plant ecology; 23) Engineering impacts on the plant, soil-water-plant relationships. The target audience are undergraduates, primarily juniors.
Class time: 60% lecture, 15% discussion, 25% laboratory
Work load: 5 pages of reading per week, 20 pages of writing per semester, 3 exams
Grade: 40% final exam, 15% written reports/papers, 30% quizzes, 15% lab work
Exam format: Problems, short answer

BAE 4013 Transport in Biological Systems
(Sec 001); A-F only; prereq—3013, CE 3502, ME 3324, upper div IT; 4 cr
Instructor: Nieber, John Little
The course involves the application of the principles of thermodynamics, fluid flow, heat transfer and mass transfer to solving of problems involving 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.
Class time: 75% lecture, 25% Problem solving
Work load: 2 exams, Design project report. Two lab hrs/week are related to learning Visual Basic programming fundamental
Grade: 20% mid-semester exam(s), 20% final exam, 30% special projects, 10% lab work, 20% problem solving
Exam format: Problem solving
Course URL: www.bae.umn.edu/~nieber/bae4013

BAE 4112W Senior Design I
(Sec 001); A-F only; prereq—2113, upper div IT, sr or instr consent; meets CLE req of Writing Intensive; 2 cr
Instructor: Chaplin, Jonathan
Introduction to design concepts. Case studies involving engineering design. Development of a proposal for a senior design project (individual or group) to be completed in BAE 4122. Oral presentation of a written design proposal. Objectives: 1) To learn how to express a design in written and graphic form. 2) To develop an understanding of a design process. 3) To constructively review a proposed design. 4) To develop a set of design specifications. 5) To use ProEngineer and other computer aided design tools. This three-credit course allows the student to look at many facets of the design process. Issues and topics that will be presented and discussed include: safety and ethics, decision making, design evaluation, information searching, standards in design, communications and making mistakes. This is a writing intensive course.
Class time: 10% lecture, 40% discussion, 50% Individual and team discovery
Grade: 40% written reports/papers, 30% special projects, 20% in-class presentations, 10% class participation

BAE 4900 Intern Reports
(Sec 001); max crs 4; S-N only; prereq—IT or COAFES student in BAE, instr consent; 2 cr
Instructor: Chaplin, Jonathan
Student exposure to engineering practice through an intern program. Periodic reports on work assignments are reviewed by faculty and coordinated with industry advisors.
Class time: 100% work related
Work load: report
Grade: 100% written reports/papers

BAE 5513 Watershed Engineering
(Sec 001); prereq—3023, upper div IT; 3 cr
Instructor: Wilson, Bruce Nord
Students will apply engineering principles in the management and design of hydrologic and surface water quality systems. Specific objectives are to understand and use: 1) Hydrologic analysis techniques for small watersheds; 2) Design techniques for small reservoirs and detention ponds for reducing peak flow rates and sediment concentrations; 3) Design techniques of surface water conveyance systems.
Class time: 66% lecture, 34% laboratory
Work load: 2 exams, 1 papers, Weekly assignments
Grade: 25% mid-semester exam(s), 35% final exam, 25% special projects, 15% class participation
Exam format: Open book problems
Course URL: www.bae.umn.edu/~wilson/bae5540

Business Administration
4-300 Carlson School of Management; 612-625-0027

BA 3000 Career Skills
(Sec 001-006); A-F only; prereq—CSOM pre-major with 30 credits or upper division major; 1 cr
Instructor: STAFF
This course is designed to prepare undergraduate students to use the Carlson School of Management Career Services Center. Topics will include the importance of self-awareness and self-assessment in identifying career options; how to access and use information related to career planning and jobs; networking; resume preparation; cover letters and correspondence; interviewing skills; professional etiquette and image in the work setting; employment trends; goal setting; and overall career strategy planning. Students will complete several self-evaluation inventories including the Myers-Briggs Type Indicator. The course is coordinated by the Business Career Center at the Carlson School and will utilize a variety of teaching techniques, with significant emphasis on classroom activities. Homework assignments will focus on helping students develop skills and strategies necessary for internship and full-time job searches. The perspective of the course is that critical elements of career development and growth include self-understanding, skill development and usage, awareness of career options, decision-making, and evaluation. By becoming proficient in these areas students can attain more satisfying career and work lives.
Class time: 30% lecture, 5% cctv, 50% discussion, 15% guest speakers
Work load: 15 pages of reading per week, 20 pages of writing per

semester, 0 exams, 1 papers
Grade: 90% written reports/papers, 10% class participation
Course URL: www.csom.umn.edu/Classnet/classnet.htm

BA 3033W Business Communication
(Sec 001-009); max crs 4; A-F only; prereq—Fr composition, CSOM upper-division; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
BA 3033, Management Communication, combines writing and speaking instruction into a single, semester-long course required of all Carlson School undergraduates. Students will receive ample opportunity for developing their critical thinking and communication skills through a blend of traditional instruction, discussion, classroom exercises,writing assignments, and presentations. Upon completing the course, learners should be able to communicate more credibly and deliver both spoken and written messages that are adapted to the specific needs of a variety of situations and audiences. The course is designed to achieve five objectives. Foremost, the course will help students acquire the core skills necessary for communicating effectively in the business and non-profit community. Second, students will learn how to combine written and spoken communication to better achieve managerial objectives and to meet the needs of a managerial audience. Third, students will learn to better analyze their communication strategies and to gather and use data in support of arguments and recommendations. Fourth, students will be exposed to key technologies such as PowerPoint and web-based systems. Finally, students will learn audience adaptation and how intercultural, organizational, and situational differences will impact communication.
Class time: 25% lecture, 75% discussion
Work load: 10 pages of reading per week, 30 pages of writing per semester, 1 exams, 3 graded speeches
Grade: 15% mid-semester exam(s), 40% written reports/papers, 30% in-class presentations, 15% class participation
Exam format: Essay
Course URL: www.carlsonmba.csom.umn.edu/ba3033/

BA 3990H Honors Topics
(Sec 001); A-F only; meets HON req of Honors; 2 cr
Instructor: STAFF
This colloquium is designed to help students learn cultivate, evaluate and apply leadership concepts in all phases of their lives. The emphasis is on interactive learning and the core of the course involves presentation and discussion by guest speakers concerning leadership experiences, issues, and roles. The dialogue with the guest speakers will be supplemented by a variety of small and large group discussion, videos, and experiential activities. Specifically, students will: 1) Interact with various organizational leaders to gain insight on leadership issues and pose challenging questions on the concept of leadership; 2) evaluate their current leadership skills and construct a development plan to enhance current skill levels; 3) develop an understanding of critical leadership behaviors and outcomes associated with those actions; 4) learn, evaluate, and apply key leadership techniques in current or previous leadership situations; 5) understand the role leadership plays in all aspects of their lives and determine how they will best incorporate leadership in all areas; 6) develop an understanding of leadership images, traits, and functions; and develop an understanding of the changing face of leadership in the global environment
Class time: 10% lecture, 5% cctv, 35% discussion, 50% guest speakers
Work load: 20 pages of reading per week, 20 pages of writing per semester, 10 papers
Grade: 85% written reports/papers, 15% class participation
Course URL: www.csom.umn.edu/Classnet/classnet.htm

Business and Industry Education
425 VoTech Building; 612-624-3004

BIE 5011 Introduction to Computer Applications
(Sec 001, 002); 3 cr
Instructor: Trebelhorn, Susan Lee
This class will begin with an introduction to computer hardware and software concepts and terminology. After a brief introduction to the Windows environment and the Microsoft Office family, study will focus on each of the four primary types of business applications: word processing (WORD); spreadsheet (EXCEL); database (ACCESS); and graphic presentation (POWERPOINT). Course objectives: 1) Build usable skills with the microcomputer. 2) Understand the basic hardware and software of the microcomputer. 3) Understand the role of the microcomputer in business. 4) Use word processing skills to prepare business documents. 5) Use a spreadsheet to set up a typical problem of modest complexity. 6) Use database skills to create databases for simulated business situations. 7) Prepare a graphical presentation. Textbook: Shelly/Cashman/Vermaat: "Microsoft Office XP Introductory Concepts and Techniques, Enhanced Edition".
Class time: 20% lecture, 80% laboratory
Work load: 1 exams, 8 to 10 hours/week on lab assignments
Grade: 23% final exam, 9% in-class presentations, 68% lab work
Exam format: Multiple choice, true/false

BIE 5015 Integrated Computer Applications in Business and Marketing Education
(Sec 001); prereq—[5011, 5012, 5013, 5014] or equiv; 3 cr
Instructor: Anderson, Michelle M
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.
Class time: 25% lecture, 75% laboratory
Work load: 2 exams, Six problem-colving projects on computer
Grade: 15% mid-semester exam(s), 15% final exam, 10% in-class presentations, 10% class participation, 50% lab work
Exam format: Computer problem-solving

BIE 5597 Internship: Business and Industry Education
(Sec 001); max crs 12; 12 repeats allowed; S-N only; prereq—instr consent; 1-8 cr
Instructor: Upton, Kevin John
Practical experience in business or industry as a professional educator or supervisor. Requires an integrative paper. This internship is designed as a culminating learning experience for student nearing graduation who have a concentration in business and industry education. Students obtain their own placement with a project assignment related to their areas of study. The work to credit hour ratio is 60:1. In addition to an integrative paper students must submit the project they have completed, a work place daily log, evidence of hours worked and a performance evaluation from their workplace supervisor. Prior approval of the instructor is required.

Center for Spirituality and Healing
Mayo Code 505; C592 Mayo; 612-624-9459

CSpH 5000 Explorations in Complementary Therapies and Healing Practices: Botanical Medicines in Healthcare
(Sec 001); max crs 12; 4 repeats allowed; prereq—Jr or sr or grad student or instr consent; 3 cr
Instructor: McKenna, Dennis Jon
This course will focus primarily on the most popular and widely used botanical medicines. The information will be presented from a biomedical perspective, although some discussion of alternative therapeutic systems, such as Traditional Chinese Medicine (TCM) or Ayurvedic Medicine, will also be included to provide balance. The information presented will be organized according to bodily systems and processes effected, e.g., the immune system, the cardiovascular system, etc. Particular botanical medicines will be discussed and presented within this functional framework. Evidence for therapeutic applications, as well as potential hazards and safety considerations, will be derived from clinical and pre-clinical studies published in current scientific literature. The botanical characteristics, traditional uses, chemical properties of the active constituents, and dosage will also be covered. Quality control issues in the manufacture of botanical supplements, and the regulatory environment governing the manufacture and sale of botanical supplements, will be included in the topics covered. The course will be divided between lectures by the instructor and student-led seminars in which recent publications in the peer-reviewed literature will form the basis for discussion topics. Depending on availability, guest lecturers with expertise in pharmacognosy and traditional medical systems, may be invited to speak.

CSpH 5000 Explorations in Complementary Therapies and Healing Practices: Meditation—Integrating Body and Mind
(Sec 002); max crs 12; 4 repeats allowed; prereq—Jr or sr or grad student or instr consent; 2 cr
Instructor: Storlie, Erik Fraser
The class approaches meditation as a physical, emotional, intellectual, and spiritual inquiry. Students examine a variety of relevant texts and develop the ability to enter a state of calm, meditative awareness.

CSpH 5000 Explorations in Complementary Therapies and Healing Practices: Integrative Psychotherapy
(Sec 003); max crs 12; 4 repeats allowed; prereq—Jr or sr or grad student or instr consent; 3 cr
Instructor: Young, Merra Lee
This class provides an in depth, experiential-based training with support for practitioner/students to learn and practice the application of integrative psychotherapy, mindfulness meditation and related mind/body approaches to clinical work with multiple client/patient populations, issues and settings.

CSpH 5000 Explorations in Complementary Therapies and Healing Practices: Introduction to Energy Healing
(Sec 004); max crs 12; 4 repeats allowed; prereq—Jr or sr or grad student or instr consent; 2 cr
Instructor: Satterness, Cynthia Joy
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, 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 energetic techniques and have the opportunity to experience feeling "energy".

CSpH 5101 Introduction to Complementary Healing Practices
(Sec 001); prereq—Jr or sr or grad student or instr consent; 3 cr
Instructor: Culliton, Patricia D
Introduces students to complementary healing practices including the historical, cultural, and political context of complementary and alternative healing traditions. Philosophies and paradigms of selected therapies will be explained and/or demonstrated. Research difficulties and results will be highlighted. Selected complementary therapies include: Traditional Chinese Medicine, mind/body healing, spiritual and faith practices; energy healing; homeopathy, Ayurveda, structural and manual therapies, nutrition and nutritional supplements, aromatherapy and Feng Shui. Students will interact with practitioners and researchers of the complementary and alternative practices; observe and/or participate in demonstrations of the therapies; and discuss how the therapy can be appropriately or inappropriately used in health care. Students will do a group project envisioning the integration of complementary healing practices with conventional medicine.
Class time: 75% lecture, 5% discussion, 20% experiential
Work load: 20 pages of reading per week, 15 pages of writing per semester, 1 exams, 2 papers, group project
Grade: 50% written reports/papers, 25% in-class presentations, 25% class participation

CSpH 5102 Art of Healing: Self as Healer
(Sec 001, 002); prereq—Jr or sr or grad student or instr consent; 1 cr
Instructor: Towey, Sue Mary
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 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-knowlege, self-awareness, transpersonal (non-local) experiences and the paradoxical mysteries that will prepare them for their student and personal lives.
Class time: 50% lecture, 30% discussion, 20% experiential
Work load: 0 exams, 2 papers
Grade: 50% written reports/papers, 50% class participation

CSpH 5111 Ways of Thinking about Health
(Sec 001); prereq—Jr or sr or grad student or instr consent; 2 cr
Instructor: Hassel, Craig Alan
In this seminar, we will explore fundamental aspects of several different health-care systems, including Ayurveda, Traditional Chinese Medicine, Native American Medicine and Western Biomedicine. To the extent possible, we will experience each of these systems in some depth through perspectives offered by field trips and invited speakers. Much of the current attention on complementary medicine focuses on the various modalities and healing tools (herbs, acupuncture, etc.) with little regard for the underlying systems of practice that guide the use of these tools. In this class, the goal is to gain more in-depth understanding of the fundamental health care systems of practice, their assumptions and guiding prinicples. Although we have a scheduled class time and place, most of this class time will be reformed into field trips and on-site learning experiences. We will be preparing for each experience by accessing identified background information, websites and various readings. All participants are expected to attend these field trips or to make other arrangements mutually agreeable with the faculty. Each field trip experience will be followed by a writing assignment, where the student will write on a health care issue of their choice from the perspective of the system being studied. This approach is designed to allow each student the maximum opportunity to explore, appreciate, articulate and share the diversity in ways of thinking about health.
Class time: 20% lecture, 20% discussion, 60% field trips
Work load: 20 pages of reading per week, 20 pages of writing per semester, 0 exams, 4 papers
Grade: 80% written reports/papers, 10% in-class presentations, 10% class participation

CSpH 5211 Peacemaking and Spirituality: A Journey toward Healing and Strength
(Sec 001); A-F only; prereq—Jr or sr or grad student or instr consent; 3 cr
Instructor: Umbreit, Mark S
This course will examine the influence of spirituality upon the process of resolving conflict and making peace in the context of intense interpersonal and intrapersonal conflicts in multiple health care and social work settings, including in families, between patients/clients and nurses/social workers, within communities, among friends, between co-workers, or within ourselves. Peacemaking is based on a humanistic and transformative theory of conflict which draws heavily upon core values of nursing and social work, as well as the ancient wisdom and practices of many diverse indigenous cultures throughout the world. Within the context of these traditions, true peacemaking is inseparable from spirituality, from honoring the sacred and recognizing our interconnectedness. For the purposes of the course, spirituality is not synonymous with the dogma and creeds of the major religious traditions in the world, even though religion for many may serve as a pathway to spirituality. Practices within the major religions of the world that foster peacemaking, however, will be explored, along with practices within Native American, Canadian Aboriginal, Native Hawaiian, African, New Zealand Maori, and Eastern cultural traditions. This course is designed to provide a basic understanding of the central elements of peacemaking and spirituality in the context of multiple health care and social work settings.
Class time: 25% lecture, 50% discussion, 25% Experencial
Work load: 70-80 pages of reading per week, 24 pages of writing per semester, 3 papers
Grade: 30% written reports/papers, 50% in-class presentations, 20% class participation

CSpH 5221 Significant Spiritual Texts of the 20th Century
(Sec 001); prereq—Jr or sr or grad student or instr consent; 2 cr
Instructor: Edelheit, Joseph A
The course will focus on the reading of spiritual classics from a diverse list to identify resources of meaning for the inner life of healers. Using this multicultural/religious survey of texts, students will learn how to establish a personal library for the life long journey of spiritual development. Spiritual classics are those elements of the Western Canon which have proven over time to be permanent resources of values. This course has been developed specifically with the healthcare student in mind who is given far too little time to reflect on their own spiritual development.

CSpH 5501 Clinical Aromatherapy I
(Sec 001); prereq—Jr or sr or grad student or instr consent; 2 cr
Instructor: Halcon, Linda Lucient
Use of Essential Oils in Health Care—Fundamental of clinical aromatherapy. History, scientific basis, practice issues, use of 19 essential oils. Critical analysis of the current and potential role of aromatherapy in health care. Plant taxonomy. Methods of extraction. Application methods. Safety and ethical issues. The class includes lecture, discussion, web materials and experiential. Target audience: health professionals and health science students. Prior knowledge of biology, physiology, biochemistry will be needed. This course will be web enhanced but the URL is not yet available.
Class time: 70% lecture, 30% discussion
Work load: 15 pages of writing per semester, 1 exams, 2 papers
Grade: 40% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: multiple choice

CSpH 5511 Interdisciplinary Palliative Care: An Experiential Course in a Community Setting
(Sec 001); 2 cr
Instructor: STAFF
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 5601 Music, Health and Healing
(Sec 001); prereq—Jr or sr or grad student or instr consent; 2 cr
Instructor: Heiderscheit, Annette Lynne
This course provides an in-depth exploration of the music in medicine, including music therapy, music medicine and music psychotherapy practices, techniques and interventions. There will be explication of the hypotheses and rationale related to interventions, and an exploration of related research.

Central Asian Studies
214 Nolte Center; 612-624-3331

CAS 3531 Central Asian Culture
(Sec 001); Same as: MELC 3531; prereq—credit will not be granted if credit received for: MELC 3531; meets CLE req of International Perspect Theme; 3 cr
Instructor: Bashiri, Iraj **!!CLA Distinguished Teaching Award!!**
This course focuses on the cultures of greater Central Asia, including the republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, as well as the Islamic republics of Afghanistan and Iran. The course explores the region's nomadic and sedentary lifestyles, the impact of Zoroastrianism, Islam, and Communism on the diverse populations of the area over time, and explores the dynamics of the political, economic, and ethnic interrelationships that distinguish each country.
Class time: 70% lecture, 20% discussion, 10% Video tapes
Work load: 50 pages of reading per week, 20 pages of writing per semester, 4 exams, 1 papers
Grade: 15% mid-semester exam(s), 15% final exam, 30% written reports/papers, 10% special projects, 20% quizzes, 7% class participation, 3%, Attendance
Exam format: Essay
Course URL: www.iles.umn.edu/faculty/bashiri/iraj.html

CAS 3601 Fiction of Iran and Central Asia in Translation
(Sec 001); Same as: MELC 3601; prereq—credit will not be granted if credit received for: 5601, MELC 3601; meets CLE req of International Perspect Theme; meets CLE req of Literature Core; 3 cr
Instructor: Bashiri, Iraj **!!CLA Distinguished Teaching Award!!**
Although prose fiction was in Iran and Central Asia in the 1920's, its background and development stand in contrast. A settled people, Iranians are subjected to Westernization while the Central Asians, originally nomadic, are forced to settled and be Sovietized. Similarly, the shared Islamic heritage of the region is strained by outside influence. In Iran, Islamic culture takes second place to nationalism while, in Central Asia, atheism displaces Islam. These clashes inspire Iranian and Soviet authors to contribute insightful accounts of their peoples' struggles. Some authors use symbolism while others prefer the direct approach of realist fiction. The course examines the social, political, and ideological dynamics of both regions; it evaluates the effects of Westernization on Iran and of Sovietization on Central Asia. Authors include: (Iran)-Jamalzadeh, Hedayat, Ali Ahmad, Amir Shahi, Mirsadeghi, Behrangi; (Central Asia)-Aini, Auezov, Kerbabayev, Aibek, Aitmatov. Stories include: (Iran)-"Dash Ako"l, "Stray Dog", "Blind Owl", "A Land Like Paradise", "Warm South", "Little Black Fish", "Black Tulip"; (Central Asia)- "Fierce Gray", "Intersection", "Jamila", "Farewell Gyulsary!", "To Have and To Lose", "Piebald Dog Running Along the Shore".
Class time: 70% lecture, 20% discussion, 10% Video tapes
Work load: 50 pages of reading per week, 20 pages of writing per semester, 4 exams, 1 papers, Book report
Grade: 10% mid-semester exam(s), 15% final exam, 30% written reports/papers, 20% quizzes, 10% class participation, 15%, 12% book report, 3% attendance
Exam format: Essay
Course URL: www.isasll.umn.edu/bashiri/iraj.html

CAS 5601 Fiction of Iran and Central Asia in Translation
(Sec 001); Same as: MELC 5601; prereq—credit will not be granted if credit received for: 3601, MELC 5601; meets CLE req of International Perspect Theme; 3 cr
Instructor: Bashiri, Iraj **!!CLA Distinguished Teaching Award!!**
Although prose fiction was introduced in Iran and Central Asia in the 1920's, its background and development stand in contrast. A settled people, Iranians are subjected to Westernization while the Central Asians, originally nomadic, are forced to settle and be Sovietized. Similarly, the shared Islamic heritage of the region is strained by outside influence. In Iran, Islamic culture takes second place to nationalism while, in Central Asia, atheism displaces Islam. These clashes inspire Iranian and Soviet authors to contribute insightful accounts of their peoples' struggles. Some authors use symbolism while others prefer the direct approach of realist fiction. The course examines the social, political, and ideological dynamics of both regions; it evaluates the effects of Westernization on Iran and of Sovietization on Central Asia. Authors include: (Iran)—Jamalzadeh, Hedayat, Ali Ahmad, Amir Shahi, Mirsadeghi, Behrangi; (Central Asia)—Aini, Auezov, Kerbabayev, Aibek, Aitmatov. Stories include: (Iran)—"Dash Akol", "Stray Dog", "Blind Owl", "A Land Like Paradise", "Warm South", "Little Black Fish", "Black Tulip"; (Central Asia)—"Fierce Gray", "Intersection", "Jamila", "Farewell Gyulsary!", "To Have and To Lose", "Piebald Dog Running Along the Shore".
Class time: 70% lecture, 20% discussion, 10% Video tapes
Work load: 60 pages of reading per week, 30 pages of writing per semester, 4 exams, 1 papers, Book report
Grade: 10% mid-semester exam(s), 15% final exam, 30% written reports/papers, 20% quizzes, 10% class participation, 15%, 12% book report, 3% attendance
Course URL: www.ilasll.umn.edu/bashiri/iraj.html

Chemical Engineering
151 Amundson Hall; 612-625-1313

ChEn 4002 Transport Phenomena
(Sec 001); A-F only; prereq—4001, upper div ChEn major; 4 cr
Instructor: Kumar, Satish
Target audience is undergraduate ChEn majors. This is a required course.
Class time: 60% lecture, 40% discussion
Work load: 3 exams, Weekly homework
Exam format: problems

ChEn 4214 Polymers
(Sec 001); prereq—Grade of at least C in MatS 3011, ChEn major upper division or instr consent; 3 cr
Instructor: Bates, Frank S **!!Geo Taylor/IT Alumni Soc Award, Distinguished Research!!**
Polymer synthesis, characterization, structure property relations. Polymerization types: free radial, 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.
Class time: 95% lecture, 5% discussion
Work load: 30 pages of reading per week, 3 exams
Grade: 40% mid-semester exam(s), 35% final exam, 25% problem solving
Course URL: www.cems.umn.edu/COURSES/mats4214

ChEn 4401W Chemical Engineering Lab I
(Sec 001); A-F only; prereq—4003, [4004 or concurrent enrollment 4004], 4101, [upper div ChEn major or dept consent]; meets CLE req of Writing Intensive; 3 cr
Instructor: Geankoplis, Christie J
This laboratory course covers the following unit operation experiments used in chemical engineering: Non-Newtonian Pipe Flow; Drying, Distillation, Extraction, Membrane Separation; Ion Exchange; Heat Exchangers. Students perform experiments in the laboratory in these areas for four hours a week. A report on each experiment is written every two weeks. Students also give oral presentations weekly. The emphasis is on planning the experiment, obtaining data, analyzing the data, oral presentations, and on writing up results. The relationship of the theory to the experimental data is emphasized.
Class time: 10% lecture, 10% discussion, 80% laboratory
Work load: 20 pages of reading per week, 75 pages of writing per semester, 1 exams, 1 report every two weeks; 1 oral report per week
Grade: 25% final exam, 70% written reports/papers, 5% in-class presentations
Exam format: problems
Course URL: www.cems.umn.edu/courses/chen4401

ChEn 4593 Directed study
(Sec 001); max crs 4; prereq—ChEn major upper division, instr consent; 1-4 cr
Instructor: STAFF
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
(Sec 001); max crs 4; A-F only; prereq—instr consent; 1-4 cr
Instructor: STAFF
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 5595 Special Topics
(Sec 001, 002); max crs 4; prereq—instr consent; 1-4 cr
Instructor: STAFF
Specially arranged experimental or one-time lecture course given by visiting or permanent faculty. Typically requires instructor approval to register.

ChEn 5759 Principles of Mass Transfer in Engineering and Biological Engineering
(Sec 001); A-F only; prereq—4002; 2 cr
Instructor: Geankoplis, Christie J
This course provides the principles of mass transfer in gases, liquids, biological and macromolecular solutions, gels, solids, membranes, capillaries and porous solids. Interaction between mass transfer and chemical reactions is also covered. Applications are given in biological, environmental, mineral, and chemical engineering systems.
Class time: 90% lecture, 10% discussion
Work load: 30 pages of reading per week, 2 exams, 5-8 homework problems per week
Grade: 40% mid-semester exam(s), 35% final exam, 25% , homework
Exam format: problems

Chemistry
139 Smith Hall 612-624-6000

Chem 1011 General Principles of Chemistry
(Sec 001, 009, 017); prereq—for students not passing placement exam; high school chemistry or equiv, two yrs high school math; high school physics recommended; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: STAFF
Chem 1011 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.
Class time: 50% lecture, 50% laboratory
Work load: 30 pages of reading per week, 5 exams, 12 laboratory reports
Grade: 20% lab work, 5% problem solving, 75% , Four midterm exams and a final exam
Exam format: multiple choice
Course URL: www.chem.umn.edu/class/

Chem 1021 Chemical Principles I
(Sec 001, 009, 017, 025); prereq—Primarily for science or engineering majors; 1011 or passing placement exam; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: STAFF
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.
Class time: 50% lecture, 50% laboratory
Work load: 40 pages of reading per week, 4 exams, 9 laboratory reports
Grade: 20% lab work, 80% , Mid-term exams, final exam, problem sets
Course URL: www.chem.umn.edu/class/

Chem 1022 Chemical Principles II
(Sec 001, 009); prereq—1021 or equiv; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: STAFF
Chem 1022 is an introductory undergraduate chemistry course with lab. Together, Chem 1021 and Chem 1022 prepare students for majors in science, engineering, and the health sciences. Lectures include chemical demonstrations. Major topics are properties of solutions; chemical kinetics, the study of the rates and mechanisms of chemical reactions; chemical equilibrium in the gas phase; equilibria in aqueous solutions, including acid-base equilibria; entropy and free energy; electrochemistry; transition metals and coordination chemistry; and selected topics. Environmental issues related to course topics are an integral part of this course. For example, the discovery of the depletion of the stratospheric ozone layer by chlorofluorocarbons (CFCs)is an important application of chemical kinetics.
Class time: 50% lecture, 50% laboratory
Work load: 40 pages of reading per week, 4 exams, Nine lab reports
Grade: 20% lab work, 80% , Mid-term exams, final exam, problem sets
Course URL: www.chem.umn.edu/class/

Chem 1031H Honors Chemistry I
(Sec 001); A-F only; prereq—IT honors student or college consent, permission from IT honors office]; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: STAFF
Chem 1031H is an introductory undergraduate chemistry course designed to help prepare students for careers in science, engineering, and the health sciences. Lecture includes chemical demonstrations. Chem 1031H is a survey of chemical principles and covers many different topics. The main themes include an advanced introduction to atomic theory; periodic properties of the elements; the behavior of gases, liquids and solids; molecular/ionic structure and bonding; aspects of organic chemistry, polymers and spectroscopy; energy sources and other environmental issues related to course topics.
Class time: 50% lecture, 50% laboratory
Work load: 40 pages of reading per week, 4 exams, Lab reports, problem assignments
Grade: 20% lab work, 80% , Mid-term exams and final exam
Course URL: www.chem.umn.edu/class/

Chem 2311 Organic Lab
(Sec 001, 004); prereq—2302 or concurrent enrollment 2302; 4 cr
Instructor: Wissinger, Jane E.
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 relavent 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 (Pavia) 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 lifes.
Class time: 10% lecture, 90% laboratory
Work load: 30-50 pages of reading per week, 120 pages of writing per semester, 5-6 quizzes
Grade: 74% written reports/papers, 9% quizzes, 17% , preparation and technique

Chem 5221 Introduction to Polymer Chemistry
(Sec 001); Credit will not be granted if credit has been received for: MATS 5221, MATS 5221, MATS 5221, CHEM 8221, CHEN 5221, MATS 8221; max crs 4; prereq—[2302, 3501] or instr consent; 3 cr
Instructor: Hillmyer, Marc Andrew
The goal of this course is to introduce students to polymer chemistry. Emphasis will be placed on synthetic methods; however, we will cover molecular characterization techniques, polymer solution thermodynamics, and polymer properties as well. A more complete treatment of the latter topics will be done in Chem/MatS 8211. Although there are many introductory polymer chemistry texts, I feel that Odian is an excellent reference book for most of the polymerization chemistry we will discuss. Synthetic

chemistry is emphasized in Odian, and appropriate reference materials will be announced or distributed for other topics not covered in Odian. Topics in this course will likely include: Condensation Polymerization, Radical Chain Polymerization, Emulsion Polymerization, Ionic Chain Polymerization, Chain Copolymerizations, Ring-opening Polymerizations, Metal-Catalyzed Polymerization, Polymer Transformation Reactions, Polymer Characterization, Polymer Solution Thermodynamics, and Polymer Properties.
Class time: 85% lecture, 10% discussion, 5 demonstrations
Work load: 25-50 pages of reading per week, 5 pages of writing per semester, 3 exams, 0 papers
Grade: 50% mid-semester exam(s), 20% final exam, 30% problem solving
Exam format: Problems; multiple choice; fill in blanks

Chem 5361 Interpretation of Organic Spectra
(Sec 001); prereq—2302 or equiv; 3 cr
Instructor: Taton, T. Andrew
Application of nuclear magnetic resonance, mass, ultraviolet, and infrared spectral analysis to organic structural problems. Course focus is on practical use of spectral data to elucidate organic structures. Application of spectral tools for problems in chemical biology, polymer chemistry and medicine will also be discussed.
Class time: 75% lecture, 25% discussion
Work load: 20 pages of reading per week, 100 pages of writing per semester, 4 exams
Grade: 60% mid-semester exam(s), 20% final exam, 20% problem solving, (3 midsemester exams)
Exam format: problem solving/essay
Course URL: www.chem.umn.edu/groups/taton/chem5361/

Chicano Studies
2 Scott Hall; 612-624-6309

Chic 3375 Folklore of Greater Mexico
(Sec 001); meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: Rojas, Guillermo
This course explores the socio-cultural function of various types of folklore within a region known as Greater Mexico—an area that includes what is now Central America, Mexico, and the U.S. Southwest. One of the objectives is to determine the way in which folklore constructs and maintains community, resists and engenders cultural shifts, and (re)creates and maintains social systems. We will look at centuries-old beliefs, the myto-historical origins of contemporary folklore, the recovery and transformation of traditional practices and forms, and the political function of such processes. Our exploration will take us into various types of oral and material production. The focus of our discussions will be on evolution rather than devolution—the way in which, like culture, is a living process in which change and transformation are inevitable responses to shifts in the environment of the participants—myth as a function of ethnic revitalization rather than simply dead or dying practices. This study will take us into the mestizaje of the region—the mixed or blended cultures of the area—primarily indigenous and Spanish, with African, African American, and Asian influences—as well as the aggressive intrusion of Anglo American culture. The concept and reality of mestizaje complicates certain contemporary categories like race, ethnicity, and class

Chic 3428 History of Relations Between U.S. and Mexico: 1821 to Present
(Sec 001); Same as: HIST 3428, LAS 3428; meets CLE req of International Perspect Theme; 3 cr
Instructor: Winkler, Anne
In this class we will consider the relationship between Mexico and the United States from a world history perspective to see what we can learn about global trends and local particularities. The history of U.S./Mexican relations provides an excellent case study for examining global distribution of economic and political power among so called "first" and "third" world nations, in the 19th and 20th centuries, and exploring how those relations have shifted over time. For over 180 years the relationship between Mexico and the United States has been one of unequal exchange. Although Mexico has struggled with the United States for control of Mexican resources with some important successes, the level of inequality has multiplied from 1820 to 2001. We will explore the historical roots of this system of dependency, examine successful and unsuccessful efforts to change it and try to understand why it has persisted. The study of Mexican /U.S. relations, however, is much more complex than the story of inequalities and dependent development. Contending interests within each nation, including workers, corporations, peasants, farmers, agri-business, indigenous groups, artists and intellectuals, have helped shape the relationship, sometimes forming alliances with peers across the border. We will pay particular attention to these contending interests and their influence on cross-border relations.
Class time: 40% lecture, 40% discussion, 20% Movies, other audio-visuals
Work load: 80 pages of reading per week, 5 pages of writing per semester, 2 exams, 1 papers, Journal writing, presentation
Grade: 15% mid-semester exam(s), 15% final exam, 10% written reports/papers, 5% quizzes, 10% in-class presentations, 25% class participation, 20% , Journal writing
Exam format: Essays

Chic 3441 Chicana/o History to 1900
(Sec 001); Same as: HIST 3441, LAS 3441; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: Valdes, Dennis Nodin
This course surveys the history of the Mexican people from the sixteenth century through the nineteenth century. It addresses historical theories of colonialism, expansion, economy, assimilation, migration and settlement, race, class, and gender, political, social, cultural, interaction and conflict.
Class time: 40% lecture, 60% discussion
Work load: 100 pages of reading per week
Grade: 20% mid-semester exam(s), 40% final exam, 20% written reports/papers, 10% quizzes, 10% class participation
Exam format: Essay

Child and Adolescent Psychiatry
D-697 Mayo (Box 95 UMHC); 612-626-6577

CAPy 5624 Eating Disorders in Children and Adolescents: Medical and Psychological Perspectives.
(Sec 001); A-F only; 1 cr
Instructors: Koehler, Dawn Julia; Pickett, Harold W
Clinical characteristics of anorexia and bulimia nervosa in children and adolescents are described. Etiological factors are considered and multi-dimensional treatment approaches are discussed. 1 credit, no prerequisites, open to all students, 5 seats reserved for non-admitted students, class material received during class. Meets 8:30 am-4:00 pm, Saturday, September 28, 2002 in MoosT 2-620.
Class time: 75% lecture, 10% discussion, 15% video, slides and/or overheads
Work load: 1 exams, Students determine how much they want to write to earn what grade they want.
Grade: 100% final exam
Exam format: short papers

CAPy 5633 Assessment of Anxiety and Depressive Disorders in Children and Adolescents
(Sec 001); 1 cr
Instructors: Pickett, Harold W; Koehler, Dawn Julia
We will discuss various manifestations of anxiety in children, including separation anxiety, obsessive-compulsive disorders, specific phobias, and generalized anxiety. We will review developmental patterns of childhood fears and anxiety, cognitive-behavioral and psycho-social interventions. 1 credit, no prerequistes, open to all students, class material received during class, 5 seats reserved for non-admitted students. Class meets 8:30 am—4:00 pm, Saturday, September 14, 2002 in MoosTower 2-620.
Class time: 75% lecture, 10% discussion, 15% video, slides and/or overheads
Work load: 1 exams
Grade: 100% final exam
Exam format: short papers

CAPy 5644 Workshop:Child Abuse/Neglect and Childhood Psychopathology—Implications for Assessment/Treatment
(Sec 001); 1 cr
Instructor: Bloomquist, Michael Leonard
Various types of child abuse/neglect and highlights of the effects of such abuse on children's psychological development. Child, parent/family, and social factors which place children at risk for abuse/neglect are discussed. Assessment and intervention approaches for working with abused children and their families. The main emphasis of the course is in describing the different forms of maltreatment and the effects of different forms of maltreatment on children's development. Practice related to assessment and intervention with children and families will be reviewed. Students will obtain a general knowledge of child maltreatment. 1 credit, no prerequisite, open to all students. Class material will be received during class. Meets 8:30 am-4:00 pm, Saturday, October 26, 2002 in MoosT 2-620.

Class time: 75% lecture, 10% discussion, 15% video
Work load: 1 exams, Students determine grade by how much they write
Grade: 100% final exam
Exam format: short papers

CAPy 5660 ADHD Throughout the Lifespan: Current Perspectives on Diagnosis, Assessment, and Treatment
(Sec 001); 1 cr
Instructor: August, Gerald
ADHD is reviewed from its beginnings in the toddler years to its later adult manifestations. Topics covered include (I) description of diagnostic criteria; (II) other disorders which commonly coexist with ADHD; (III) assessment methods; (IV) medication and behavioral treatment approaches; and (V) school-based interventions. 1 credit, no prerequisites, open to all students, class material will be received during class. Meets 8:30 am-4:00 pm, Saturday, November 9, 2002 in MoosT 2-620.
Class time: 75% lecture, 10% discussion, 15% video, slides and/or overheads
Work load: 1 exams
Grade: 100% final exam
Exam format: short papers

CAPy 5665 Principles and Profiles of Child and Adolescent Psychopathlogy
(Sec 001); 1 cr
Instructors: Pickett, Harold W; Layne, Ann Elizabeth
Explore normal development and abnormal development in children and adolescents. 1 credit, 5 reserved seats for non-admitted students, open to all students, no prerequisites, class materials received during class. Class meets 8:30 am-4:00 pm, Saturday, September 7, 2002 in MoosT 2-620.
Class time: 75% lecture, 10% discussion, 15% slides and/or overheads
Work load: 1 exams
Grade: 100% final exam
Exam format: short papers

CAPy 5666 Aggression and Conduct Problems in Children and Adolescents
(Sec 001); 1 cr
Instructor: Bloomquist, Michael Leonard
Children who manifest aggression and conduct problems are prone to multiple difficulties that negatively affect themselves and others. This course will describe the characteristics, developmental course, and associated risk factors that are seen in children with aggression and conduct problems. The general and specific developmental pathways of aggression and conduct problems in children will be articulated. The biological, parent/family, social/peer, and contextual (e.g., neighborhood, school, societal, etc.) causes and correlates will be reviewed. This will be contrasted with the development of resilience in children who face many of the same risk factors, yet exhibit competence. Finally, the course will briefly examine a developmentally focused, multi-systemic model of intervention that comprehensively focuses on reducing risks and promoting protective factors in child, parent/family, social/peer, and contextual life domains. 1 credit, no prerequisites, class material received during class, open to all students, 5 seats reserved for non-admitted students, Class meets 8:30 am -4:00 pm, Saturday, November 23, 2002 in MoosT 2-620.
Class time: 75% lecture, 10% discussion, 15% video, slides and/or overheads
Work load: 1 exams
Grade: 100% final exam
Exam format: short papers

Child Psychology

208 Child Development 612-624-0526

CPsy 2301 Introductory Child Psychology
(Sec 001); prereq—4 cr intro psych; meets CLE req of Social Science Core; 4 cr
Instructor: Sroufe, L Alan **!!William Harris Prof in Child Dev!!**
"Child Development: Its Nature and Course," 2nd edition by Sroufe, Cooper and DeHart. This is a survey course in child development. The primary goal of the course is to introduce you to the nature of child development and to the scientific study of development. We will cover the major domains of development—cognitive, social, and emotional—from the prenatal period to early adolescence. Following the approach adopted in the required text, the course is organized chronically. Because the course is designed to provide to provide an overview of the field of development psychology, no one topic is covered in depth. Students who are especially interested in pursuing specific areas in greater depth are encouraged to take more advanced courses (e.g., CPSY 3343, Cognitive Development; CPSY 3303, Adolescent Development) The primary class format will be lecture, but there will be daily discussion and regular focused discussions on listed topics. There also will be numerous videotape presentations—all illustrating central features of child development.
Class time: 60% lecture, 20% cctv, 20% discussion
Work load: 50 pages of reading per week, 5 pages of writing per semester, 3 exams, 1 papers
Grade: 50% mid-semester exam(s), 40% final exam, 10% written reports/papers
Exam format: Multiple choice

CPsy 3301 Introductory Child Psychology for Social Sciences
(Sec 001); 4 cr
Instructor: Sroufe, L Alan **!!William Harris Prof in Child Dev!!**
No credit will be given if credit received for 1301,5301; prereq Psy 1001, 4cr. This is a survey course in child development. The primary goal of the course is to introduce you to the nature of child development and to the scientific study of development—from the prenatal period to early adolescence. Following the approach adopted in the required text, the course is organized chronically. Because the course is designed to provide an overview of the field of development psychology; no one topic is covered in depth. Students who are especially interested in pursuing specific areas in greater depth are encouraged to take more advanced courses (e.g. CPsy 3-343, Cognitive Development; Cpsy 3-303, Adolescent Development), Class Format: The primary class format will be lecture, but there will be daily discussion and regular focused discussions on listed topics. There also will be numerous videotape presentations—all illustrating central features of child development.
Class time: 50% lecture, 15% cctv, 15% discussion, 20% laboratory
Work load: 50 pages of reading per week, 2 exams, 1 paper for 3-309 students (2pages)
Grade: 30% mid-semester exam(s), 50% final exam, 20% lab work
Exam format: Multiple choice, some short answer

CPsy 4302 Infant Development
(Sec 001); A-F only; prereq—2301 or instr consent; 4 cr
Instructor: Yonas, Albert
The goal of this course is to survey the field of infant development, its theories and methods. The course will concentrate on the period that begins with conception and ends at two years of life. The first part of the course will deal with the first year of life, including prenatal development, physical, neurological, motor and perceptual development. The second part of the course will focus on cognitive and social development. This part will also explore the development of language and memory. The final part of the course will deal with social development. It will include topics such as parent-child attachment, temperament, and the effects of environmental deprivation and enrichment. The course emphasizes methodological hazards that should be attended to in making inferences about infant function and development. Text: "Infancy", 2nd edition, J. Gavin Bremner, Blackwell, Cambridge, Mass, 1994.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers
Grade: 40% final exam, 30% written reports/papers, 30% quizzes
Exam format: Multiple choice

CPsy 4310 Special Topics in Child Development
(Sec 001); max crs 12; 3 repeats allowed; A-F only; prereq—Psy 1001, CPsy sr; 3 cr
Instructor: STAFF
This course is designed for seniors majoring in Child Psychology and is a required course. Its purposes are to provide an opportunity for class members to explore in depth a topic of interest in child psychology, facilitate students gaining an understanding of current literature on a developmental topic, and assist students in organizing, integrating, and critiquing relevant literature. Students are required to write a 25-30 page literature review on a development topic of their own choosing.

CPsy 4343 Cognitive Development
(Sec 001); A-F only; prereq—2301; 4 cr
Instructor: Sera, Maria D
This course is designed to introduce undergraduates to the study of cognitive development. Psychologists undertake this study with a variety of theoretical perspectives, and methodologies. In this course, students will learn about those themes and methods, where they originated and how they are embodied in contemporary research. The course is organized into four sections: Perceptual Development; Piaget's Theory; Information-Processing Approaches, and Language Development. No section will be covered in depth, but instead, a general overview of the major issues, methods, and

findings in each area will be provided. The primary reading for the course will be a book entitled "Children's Thinking", written by Robert Siegler in 1998.
Class time: 100% lecture
Work load: 50 pages of reading per week, 4 exams
Grade: 30% final exam, 70% , 3 in-class exams (+ final)

CPsy 4347 Senior Project
(Sec 001); A-F only; prereq—CPsy sr; 2 cr
Instructor: Englund, Michelle M
This course is designed for seniors majoring in Child Psychology and is a required course. The primary requirement of senior project is to write a literature review on a developmental topic or problem in child psychology. This paper should integrate and evaluate previously published research on a topic of your choosing. I will not limit the range of topics that you can choose from, but the paper must deal directly with research in child psychology. The overall focus of the paper should be on the concept of development. The paper must be approximately 25-30 pages in length, typed and written in APA style. Sections of the paper are due throughout the semester, and revisions are required. Its purposes are to: (a) provide class members an opportunity to explore in depth a topic of interest in child psychology; (b) facilitate students gaining an understanding of current literature on a developmental topic; (c) assist students in choosing a developmental topic; identifying literature appropriate to the topic; organizing, integrating, and critiquing relevant literature; and developing written communication skills.
Class time: 50% lecture, 10% cctv, 40% one-on-one and feedback on projects
Work load: 30+ pages of writing per semester, 1 papers, sections of final paper and are due throughout
Grade: 100% written reports/papers
Exam format: no exams
Course URL: webct.umn.edu/

CPsy 4993 Directed Instruction in Child Psychology
(Sec 001); max crs 8; 8 repeats allowed; S-N only; prereq—4 cr CPsy, instr consent; 3 cr
Instructor: Mooney-Mc Loone, Ann
This course is for students gaining Early Childhood Licensure. This course covers: (1) the historical and philosophical foundations of Early Childhood Education; (2) Familiarizes students with various observation tools; and (3) Familiarizes students with public policy, legislation, and its impact on children.
Class time: 20% lecture, 50% discussion, 30% laboratory
Work load: 4 pages of reading per week, 2 papers, 8 observations
Grade: 40% lab work
Exam format: Essay

CPsy 4993 Directed Instruction in Child Psychology
(Sec 002); max crs 8; 8 repeats allowed; S-N only; prereq—4 cr CPsy, instr consent; 1-4 cr
Instructor: Mooney-Mc Loone, Ann
This course is for students gaining Early Childhood Licensure. This course covers: (1) the historical and philosophical foundations of Early Childhood Education; (2) Familiarizes students with various observation tools; and (3) Familiarizes students with public policy, legislation, and its impact on children.
Class time: 20% lecture, 50% discussion, 30% laboratory
Work load: 4 pages of reading per week, 2 papers, 8 observations
Grade: 40% lab work
Exam format: Essay

CPsy 4994 Directed Research in Child Psychology
(Sec 001); max crs 8; 8 repeats allowed; prereq—4 cr in CPsy, instr consent, dept consent; 1-4 cr
Instructor: STAFF
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; schedule and confirm appointments; update information, et al.; 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.
Class time: 10% discussion, 90% laboratory
Work load: 3 lab hours per credit per week
Grade: 20% special projects, 70% lab work, 10% problem solving

CPsy 4996 Field Study in Child Psychology
(Sec 001); max crs 8; 8 repeats allowed; S-N only; prereq—4 cr CPsy, instr consent; 1-4 cr
Instructor: Mooney-Mc Loone, Ann
This opportunity normally provides students with an internship in their career plans. Internships offer another way to develop contacts and explore different career possibilities. The Child Psychology Peer Advising Office, Room 106, Child Development, has an extensive internship file on hand that is divided into various areas of interest such as infancy, young children, adolescence, and the aging. There are many agencies that may be of interest to students. 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.
Class time: 10% discussion, 90% laboratory
Work load: 10 pages of reading per week, 1 papers
Grade: 20% written reports/papers, 80% class participation
Exam format: paper

Chinese
453 Folwell Hall; 612-625-6534

Chn 1011 Beginning Modern Chinese
(Sec 001-006, 050, 051); 5 cr
Instructor: STAFF
This is the first semester of a two-semester sequence in first-year modern Standard Chinese (Mandarin) for undergraduate students who are non-heritage speakers of Chinese. Students are introduced to the sounds of Mandarin, basic grammar, vocabulary, and the Chinese writing system. The course consists of two lectures and five recitation classes per week. By the end of the first semester, students are expected to be able to write about 270 Chinese characters, recognize about 400 characters, conduct a basic conversation, read simple texts or conversations, and write some correct sentences in Chinese. Textbook: "Integrated Chinese", Level One, Part One, Tao-chung Yao, et. al., Cheng & Tsui Company / 1997
Class time: 30% lecture, 70% discussion
Work load: 6 exams, Listening, recording, written homework
Grade: 10% mid-semester exam(s), 15% final exam, 10% quizzes, 25% class participation, 25% , Homework, 15% tests
Exam format: Listening, reading, writing, and oral interview
Course URL: www.all.umn.edu/chinese_language

Chn 1015 Accelerated Beginning Modern Chinese
(Sec 001); prereq—credit will not be granted if credit received for: 1011 or 1012; instr consent; 5 cr
Instructor: Zou, Zhen
This course is designed for undergraduate students who are heritage speakers of Chinese. The course will focus on conversation, reading, and character writing, and spend less time on grammar explanation. The lectures cover Chinese characters and words, as well as sentence patterns. In the drill sessions, students will practice the skills of listening comprehension, speaking, reading, and writing. The first two weeks of the semester are devoted to the Chinese phonetic system—pinyin, and to pronunciation. Beginning from the third week, the lectures and drill sessions will be conducted in Chinese. Since this is an accelerated course, we will cover the whole of first-year Chinese within one semester, and the pace of the course will be approximately one lesson every two days. By the end of the semester, students are expected to be able to conduct a fairly sustained conversation, recognize and write about 700 characters, read texts of some sophistication, and write short compositions in Chinese. Textbook: "Integrated Chinese", Level One, Part One and Part Two, by Yuehua Liu et al, Cheng & Tsue Company, 1997.
Class time: 30% lecture, 55% discussion, 5% laboratory, 10% Video and other multi-media
Work load: 10 pages of reading per week, 2-3 pages of writing per semester, 6 exams, Listening, taped reading, written homework
Grade: 20% final exam, 10% quizzes, 5% in-class presentations, 20% class participation, 20% , Tests, 25% homework
Course URL: www.all.umn.edu/chinese_language

Chn 3021 Intermediate Modern Chinese
(Sec 001, 050, 051); prereq—1012 or 1015 or equiv or instr consent; 5 cr
Instructor: STAFF
This is the first half of a two-semester sequence in second year modern standard Chinese (Mandarin). It is designed for students who have completed Chn 1012 or 1015 at the U of M, or the equivalent. It will help students improve their ability to understand, speak, read, and write Chinese, and particularly aims at helping students enlarge their vocabulary and learn more complex sentence structures. Students will also be trained to

write good compositions to express their views. Those who have not completed Chn 1012 or 1015 at the U of M, but wish to enroll in this course, need the instructor's approval. Textbook: "Integrated Chinese", by Yuehua Liu, et al, Cheng & Tsui Company, 1997
Class time: 40% lecture, 60% discussion
Work load: 5-10 pages of reading per week, 5-8 pages of writing per semester, 2-4 exams, Weekly quizzes, homework
Grade: 20% mid-semester exam(s), 30% final exam, 15% quizzes, 15% class participation, 20% , Homework
Exam format: Listening, translation, reading, writing

Chn 3031 Advanced Modern Chinese
(Sec 001, 002); prereq—3022 or equiv or instr consent; 4 cr
Instructor: STAFF
This course will be open only to those students who have completed the equivalent of the first 2 years of the Chinese Language Curriculum at the U of M. The focus will be on improving reading skills, building vocabulary, mastering new sentence structures and expressing one's ideas and opinions (especially about the readings) in both spoken and written Chinese. Both prepared and unprepared (spontaneous) responses to the written materials will be focused on in classroom sessions (i.e. memorization of short passages, sight reading and Q&A sessions). As in previous years, readings will include: selections from May 4th (1920's) Chinese fiction and essays, newspaper readings, and some other selections (academic prose, popular music, classical pieces, etc.) We will attempt to develop a sense of spontaneity and confidence in dealing with the type of contingent situations confronted daily when one is in a foreign-language environment. To this end, significant stress will be placed on teaching students to use the Chinese they know as a tool for mastering the Chinese they don't know.
Class time: 20% lecture, 60% discussion, 20% Q & A; role play; group activities; video
Work load: 5-8 pages of reading per week, 10 pages of writing per semester, 2 exams, 0 papers, Taped speech (once every three weeks)
Grade: 10% mid-semester exam(s), 15% final exam, 20% quizzes, 20% in-class presentations, 25% class participation, Homework
Exam format: Speaking, listening, reading, writing
Course URL: www.all.umn.edu/chinese_language

Chn 3201 Chinese Calligraphy
(Sec 050); 2 cr
Instructor: Zhang, Hong
A beginning course in Chinese Calligraphy. Lectures will introduce the student to basic Chinese Calligraphy techniques and provide historical information on the topic (e.g. cultural background, aesthetic values, etc.) Practicing in class will give the student hands-on experience regarding the correct usage of Chinese brush and ink to write Chinese characters. Students will also have the opportunity to learn the meaning of the characters they write. All text material is written by the instructor. This course is for ALL students. Chinese language background NOT required.
Class time: 30% lecture
Work load: one or two pages or written Chinese calligraphy per week (approx 20 characters per page)
Grade: 50% class participation, 50% , home assignments

Chn 5040 Readings in Chinese Text: Classical Literary Texts
(Sec 001); A-F only; prereq—3032 or equiv or instr consent; 3 cr
Instructor: Allen, Joseph R
This course is designed to introduce the advance Chinese language student to literary Chinese. Literary Chinese (wenyanwen) is the language used in most premodern tests and still very important for understanding modern Chinese materials. The course will also function as an advanced modern language course. The grammar lectures will be held in English, but the discussion sections will be in Modern Standard Chinese (Mandarin). Not suitable for native speakers of Chinese.

Civil Engineering
122 Civil Engineering Building; 612-625-5522

CE 3301 Soil Mechanics I
(Sec 001); Same as: GEOE 3301; A-F only; prereq—IT, AEM 3031; 3 cr
Instructor: Guzina, Bojan B
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".
Class time: 70% lecture, 30% laboratory
Work load: 20 pages of reading per week, 2 exams, 2 quizzes, 8 homework assignments, 7 labs/reports
Grade: 27% mid-semester exam(s), 30% final exam, 10% quizzes, 21% lab work, 12% problem solving
Exam format: Multiple choice

CE 3401 Linear Structural Analysis
(Sec 001); A-F only; prereq—Grade of at least C- in AEM 3031, IT; 3 cr
Instructor: Hajjar, Jerome F.
Analysis of statically determinate and indeterminate linear structural systems; analysis of trusses and frames through virtual work, moment-area, consistent deformation, slope-deflection, and moment destribution methods; influence lines; approximate methods of analysis. This course is geared for undergraduates interested in a introduction ot predicting the forces and displacements in buildings, bridges, and other structures, and it is a required course for all civil engineering majors. This course is a prerequisite for CE 4401 Steel and Reinforced Concrete Design.
Class time: 90% lecture, 10% discussion
Work load: 50 pages of reading per week, 2-3 exams, 14 problem solving assignments
Grade: 25% mid-semester exam(s), 35% final exam, 10% quizzes, 30% problem solving
Exam format: Several questions requiring analysis and problem solving; essays and short answers

CE 4101W Project Management
(Sec 001); prereq—Upper div IT; 3 cr
Instructor: Smith, Karl Aldrich **!!Morse Alumni Award!!**
Survey course covering broad areas in project management and economics. CE 4101W emphasizes a practical understanding of engineering project management—including project planning, scheduling, and controlling; budgeting, staffing, task and cost control; and communicating with, motivating, leading, and managing conflict among team members. A broader "systems" approach to viewing problems with particular emphasis on the interactions among various perspectives—technological, environmental, economic, social, etc.—is used to integrate all of the various aspects of the course. The entire course is problem-based, that is, the emphasis is on formulating and solving problems, and interpreting and evaluating the results. The instructional approach is a combination of small-group work, experiential exercises, discussion, and lecture.
Class time: 40% lecture, 20% discussion, 40% Small-group work
Work load: 40 pages of reading per week, 25 pages of writing per semester, 3 exams, 4 papers, 3 group project reports
Grade: 30% mid-semester exam(s), 7% final exam, 30% written reports/papers, 22% special projects, 10% , Homework
Exam format: Problem solving, reasoning
Course URL: www.ce.umn.edu/courses/Fall01/ce4101

CE 4102W Capstone Design
(Sec 001, 002); A-F only; prereq—3201, 3202, 3301, 3401, 3402, 3501, 3502; meets CLE req of Writing Intensive; 3 cr
Instructor: Stefan, Heinz G
Teams of 3—4 students solve civil engineering problems posed by practicing engineers (mentors). From problem description through formulation of objectives, conceptual solutions, preliminary planning and analysis, design. environmental impact assessment, final plans/specifications, cost analysis, and recommendations. Each team makes three presentations. Draft reports and a final project report are reviewed.
Class time: 10% discussion, 90% Team work on an engineering project
Work load: 10—20 pages of reading per week, 60 pages of writing per semester, 3 papers
Grade: 80% written reports/papers, 20% in-class presentations

CE 4411 Matrix Structural Analysis
(Sec 001); A-F only; prereq—[Grade of at least C- in 3401, [upper div IT or grad student]] or instr consent; 3 cr
Instructor: Stolarski, Henryk Konstan
The purpose of the course is to introduce the students to the contemporary methods of matrix analysis of structures and their implementation on the computers. It is done in the context of linear structural analysis, knowledge of which is one of the prerequisites of the course. The second prerequisite is some familiarity with a computer programming language, since the students are required to write a computer program for analysis of truss and frame structures. In addition to that program, there are about eight homework assignments and the final computational project. Successful completion of the course should provide sufficient basis for writing individual structural analysis computer codes and for knowledgeable use of the

commercial codes, widely available in engineering practice. The course is designed mainly for structural engineering majors. Students in related areas, such as mechanical engineering, aerospace engineering or architecture, who have some interest in structures may find this course useful as well.
Class time: 100% lecture
Work load: 1 exams, 2 papers, 8 homework assignments
Grade: 35% mid-semester exam(s), 20% written reports/papers, 25% special projects, 20% problem solving
Exam format: Derivation of formula

CE 5212 Urban Transportation Planning
(Sec 001); prereq—3201 or equiv; 3 cr
Instructor: Levinson, David M
CE 5212 applies planning theory to transportation. It is oriented to first year graduate students and seniors intending to concentrate in transportation, and while aimed at engineers and planners, is open to other interested students. Topics include: The Long View in Transportation, Constructing and Deconstructing, Transportation Plans, Topology and Graph Theory, Traffic Assignment, Network Design, Accessibility and Measuring Network Performance, Things People Do in Time and Space, Transportation Supply Management, Transportation Demand Management, Transportation, The Environment and Energy, Quality of Life and Traffic Calming, Special Needs (Children, Elderly, Disabled). Papers and Assignments include: Analyzing the historic life-cycle of a transportation technology, measuring accessibility on networks with GIS, analyzing travel and activity behavior, and examining the effects of a particular transportation policy or set of policies in the Twin Cities area. Texts will likely include Meyer and Miller Urban Transportation Planning: A Decision Oriented Approach, Hanson ed. The Geography o f Urban Transportation and a CE 5212 Reader.
Class time: 50% lecture, 50% discussion
Work load: 150 pages of reading per week, 60 pages of writing per semester, 3 papers
Grade: 75% written reports/papers, 25% class participation
Course URL: www.ce.umn.edu/~levinson/ce5212.html

CE 5551 Environmental Microbiology Laboratory
(Sec 001); A-F only; prereq—3501, [upper div or grad] student; 4 cr
Instructor: Novak, Paige J
This course serves as an introduction to environmental microbiology. It is designed for upper-level undergraduates and beginning graduate students, either major or non-major. The course will cover topics in basic microbiology, microbial ecology, and the role of microbes in hazardous waste degradation, water and wastewater treatment, and biogeochemistry. Laboratory sessions will cover basic microbiological techniques including organism isolation and microscopy.
Class time: 60% lecture, 15% discussion, 25% laboratory
Work load: 20 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers, 3 presentations
Grade: 60% mid-semester exam(s), 10% written reports/papers, 18% quizzes, 12% lab work
Exam format: Short answer and essay

CE 5581 Water Resources: Individuals and Institutions
(Sec 001); A-F only; 3 cr
Instructor: Brezonik, Patrick L
The primary objective of this course is to develop an understanding of how water resources are managed by humans. In doing so, we examine natural constraints imposed by spatial and temporal variability in water supply that conflict with spatially and temporally varying demands for water by humans and natural ecosystems. The emphasis of this course is on socio-economic and cultural factors that affect national, state and local water policy and the ways that water resources are used and managed by individuals and society. The course topics include human perspectives on the nature of water, water policy, law, economics of water resources, and trans-national issues. The course is primarily for graduate students and seniors who have had some prior course work in the area of water resources science. Students should also have a basic understanding of word processing and spreadsheet programs, and accessing web-based data bases. The course uses the book, "Water Use, Management, and Planning in the United States", (S.A. Thompson, Academic Press) as a required text, a course packet of about 25 short issue papers primarily from the journal, "Water Resources Update", and the video series, "Cadillac Desert". Classes are a mixture of formal lectures and organized discussions.
Class time: 70% lecture, 30% discussion
Work load: 15 pages of reading per week, 15-20 pages of writing per semester, 1-2 exams, 2-3 papers, Two other homework/computer assignments
Grade: 20% mid-semester exam(s), 25% final exam, 20% written reports/papers, 10% special projects, 25% problem solving
Exam format: Essay

CE 5591 Environmental Law for Engineers
(Sec 001); A-F only; prereq—upper div IT or grad or instr consent; 3 cr
Instructor: Braaten, Bruce C
The intent of this course is to introduce the regulatory programs and legal terminology for specific Federal environmental laws and regulations. An overview of the framework of each of the following laws and regulations is presented: National Environmental Policy Act, Safe Drinking Water Act, Hazardous Waste, Underground Storage Tanks, Leaking Underground Storage Tanks, Clean Water Act, Superfund, and the Clean Air Act. As time allows, the Federal laws and regulations are supplemented by parallel Minnesota statutes, rules, and case law. Legal requirements for obtaining particular permits, utilizing a particular contaminant removal technology, and contaminated site cleanup, within particular laws and regulations, are highlighted. The course is presented from the perspective of what does a technical environmental professional need to know. This course target audience is technical (environmental engineer, chemist, hydrogeologist, etc.) environmental majors or professionals. Students must be either upper division undergraduate, graduate or professional.
Class time: 90% lecture, 10% discussion
Work load: 30 pages of reading per week
Grade: 40% mid-semester exam(s), 50% final exam, 10% problem solving

Classical Civilization
300 Folwell Hall; 612-625-7565

ClCv 3950 Topics in Classical Civilization
(Sec 001); max crs 9; 3 repeats allowed; 3-4 cr
Instructor: Asher, Catherine B
This course will focus on the Art of Islam from the origins of Islam to the 21st Century, covering much of the Islamic world. Focus will be on architecture and painting, among other arts. The cultural, political and religious milieu, as well as the role of the patron under which art works were created, will be discussed. The material will be approached geographically and chronologically; throughout the course the features and themes that unify the diverse artistic trends and styles produced throughout the Islamic world will be discussed.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 10 pages of writing per semester, 3 exams, 2 short papers
Grade: 25% final exam, 45% written reports/papers, 30% quizzes
Exam format: Short essay

Classics
330 Folwell Hall; 612-625-5353

Clas 1001 Ancient Greece: Poet and Hero in the Age of Homer
(Sec 001); meets CLE req of Historical Perspective Core; 3 cr
Instructor: Belfiore, Elizabeth S
This course focuses on archaic Greece (the 16th through the 6th centuries BCE), beginning from the time during which Homer's epics are set, and ending when Athenian democracy arises. It will study the history, literature, art, society, and religion of this period. Topics will include: the heroes of the "Iliad" and "Odyssey", the palace of Agamemnon, Greek vase painting, the gods of Hesiod, the poetry of Sappho, Greek slavery, the Olympic Games, the Delphic oracle, women and marriage. Students are encouraged to take an active role in class. Lectures are planned to facilitate questions and discussions, whether with the class as a whole or in smaller discussion groups.
Class time: 60% lecture, 40% discussion
Work load: 50-70 pages of reading per week, 10 pages of writing per semester, 3 exams, 2 papers
Grade: 40% mid-semester exam(s), 25% final exam, 30% written reports/papers, 5% special projects
Exam format: Multiple choice, short answers, definitions, identification of important passages from the readings,

Clas 1024 Age of St. Augustine of Hippo
(Sec 001); Same as: CLAS 3024; prereq—=3024; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3 cr
Instructor: Nicholson, Oliver **!!UC Outstanding Teaching Award!!**
This course is an introduction to a formative period in the history of Europe

and the Near East. The years 363-500 A.D. saw Christianity taking root as the dominant religion of the Roman Empire, it saw developing relations between Rome and the Persian Empire, it saw Western Europe threatened by warlike horseman from the steppes of central Asia and invaded by the Germanic tribes who came eventually to form the nations of modern Europe. We shall study these historical changes across a wide range of civilizations, from the savvy Huns and their fearsome leader Atilla, the "Scourge of God", to the solemn ceremonial of the early Byzantine court, and the lively city of Constantinople which surrounded it. We shall also consider in detail the writings of the two most influential authors of the period, Augustine's "Confessions" and Boethius's "Consolation of Philosophy". The emphasis of all reading will be on texts written at the time (in English translation). Everyone will write an essay. This will be history with the people left in. Come and meet folk like Augustine who are far distant in time but with preoccupations that are vividly recognisable now.
Class time: All lecture and discussion
Work load: 2 exams, 1 papers, essay on a set topic
Grade: 20% mid-semester exam(s), 50% final exam, 30% written reports/papers
Exam format: Gobbets—passages from ancient sources set for comment. Explanation in class.

Clas 1042 Greek and Roman Mythology

(Sec 001); Credit will not be granted if credit has been received for: CLAS 1042H, CLAS 1142; meets CLE req of Other Humanities Core; 4 cr
Instructor: Nappa, Christopher J
The myths of the ancient Mediterranean and Near Eastern world have had a profound influence on the art, literature, and thought of all later western culture. In myth we encounter gods and heroes, demons and monsters, but most of all human beings trying to make sense of the universe and our place within it. Classics 1042 is a general introduction to classical mythology. Most of the readings in this course will come from ancient Greece, but myths from Mesopotamia and Rome will also be studied. Some emphasis will be placed on the survival of myth in later culture and on differing theories of interpreting myth.
Class time: 50% lecture, 50% discussion
Work load: 55-100 pages of reading per week, 10 pages of writing per semester, 2 exams, Reading assignments vary in length.
Grade: 20% mid-semester exam(s), 30% final exam, 20% written reports/papers, 20% quizzes, 10% class participation
Exam format: short answer, essay
Course URL: www.tc.umn.ed/~cnappa/myth.html

Clas 1042H Honors Course: Greek and Roman Mythology

(Sec 001); Credit will not be granted if credit has been received for: CLAS 1042; prereq—Honors or instr consent; meets CLE req of Other Humanities Core; meets HON req of Honors; 4 cr
Instructor: Nappa, Christopher J
The myths of the ancient Mediterranean and Near Eastern world have had a profound influence on the art, literature, and thought of all later western culture. In myth we encounter gods and heroes, demons and monsters, but most of all human beings trying to make sense of the universe and our place within it. Classics 1042H is a general introduction to classical mythology. Most of the readings in this course will come from ancient Greece, but myths from Mesopotamia and Rome will also be studied. Some emphasis will be placed on the survival of myth in later culture and on differing theories of interpreting myth. Honors version of CLAS 1042.
Class time: 50% lecture, 50% discussion
Work load: 55-100 pages of reading per week, ~15 pages of writing per semester, 2 exams, 3 papers, Reading assignments vary in length.
Grade: 20% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% quizzes, 10% class participation
Exam format: short answer, essay
Course URL: www.tc.umn.edu/~cnappa/myth.html

Clas 1043 Classical Archaeology: Introduction to the Archaeology of Ancient Greece and Rome

(Sec 001); Same as: ARTH 1043; meets CLE req of Historical Perspective Core; 4 cr
Instructor: Berlin, Andrea
Greek and Roman Archaeology focuses on the material remains from ancient Greeks and Romans, two peoples whose cultures comprise an enormously influential chunk of human development. For about 1500 years, the Greeks and Romans controlled, or deeply influenced, a broad swath of the civilized world, from Portugal to the Persian Gulf. The Greeks developed democracy; the Romans a system of representative rule; members of both societies invented a variety of philosophical and religious systems, as well as such literary genres as epic and lyric poetry, tragic and comic plays, and the novel. In addition, members of both cultures created many fascinating, awe-inspriing and exquisite objects and buildings. One good reason to study Greek and Roman archaeology is simply to learn about these wonderful remains, whose survival from so long ago is almost miraculous. A second reason for studying Greek and Roman archaeology is that it provides a series of time-capsule views of peoples living in a deeply material world, within complicated, class-riven societies surprisingly similar to our own. By anayzing their remains, archaeologists can study the particulars of their lives, with attention to large questions as: How did people respond to political and economic changes? How did the spread of literacy affect society? Archaeology provides the material evidence of past lives, and since we are a species with a material bent, such evidence is germane to understanding ourselves.
Class time: 75% lecture, 25% discussion, Every other week the class will break up into small groups for organized discussion of questions tha
Work load: 40 pages of reading per week, 25-30 pages of writing per semester, 0 exams, 6 short papers (3 pgs. each)
Grade: 80% written reports/papers, 20% class participation
Exam format: There are no exams.

Clas 1082 Jesus in History

(Sec 001); Same as: RELA 1082; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Sellew, Philip H
In this course we study Jesus of Nazareth in his original setting: first-century Jewish Palestine. How did the image of Jesus shift in changing cultural circumstances? How do modern scholars approach the historical figure of Jesus? What special issues and problems emerge as we try to apply scholarly methods of inquiry to an ancient person who is still worshipped daily almost 2000 years after his death? We ask how Jesus fit within his own world—Jewish, Greek, and Roman. How unusual was Jesus in his own day? What were his intentions? What attracted people to him? What led to his arrest, trial, and execution? We consider the various stories told in the gospel writings of the early churches about Jesus the healer, Jesus the teacher, Jesus the prophet, Jesus the man on a (temporary) visit from Heaven. We ask whether or how we might manage to correlate these competing portraits of Jesus. Structure: We have two lectures and one discussion section each week. Conversation is always welcome. We engage in close readings of the Gospel of Mark, thought to be the oldest gospel that still survives intact, as well as parts of other biblical and apocryphal texts from ancient Christianity. Each student writes seven brief reports (1-2 pp.) on assigned topics or problems; these reports form the basis of discussion in our Tuesday or Thursday sections. Brief quizzes each week test reading comprehension.
Class time: 65% lecture, 35% discussion
Work load: 50 pages of reading per week, 15 pages of writing per semester, 1 exams, Read the assigned texts, show up for class, and be prepared to talk in section. Produce seven brief
Grade: 25% final exam, 40% written reports/papers, 20% quizzes, 15% class participation
Exam format: There is a take-home final exam, in which students write essays evaluating the different reconstruct

Clas 1082H Honors Course: Jesus in History

(Sec 001); Same as: RELA 1082H; prereq—credit will not be granted if credit received for: 1082, 1182, RelA 1082, RelA 1182; honors; meets CLE req of Historical Perspective Core; meets HON req of Honors; 4 cr
Instructor: Sellew, Philip H
In this course we study Jesus of Nazareth in his original setting: first-century Jewish Palestine. How did the image of Jesus shift in changing cultural circumstances? How do modern scholars approach the historical figure of Jesus? What special issues and problems emerge as we try to apply scholarly methods of inquiry to an ancient person who is still worshipped daily almost 2000 years after his death? We ask how Jesus fit within his own world—Jewish, Greek, and Roman. How unusual was Jesus in his own day? What were his intentions? What attracted people to him? What led to his arrest, trial, and execution? We consider the various stories told in the gospel writings of the early churches about Jesus the healer, Jesus the teacher, Jesus the prophet, Jesus the man on a (temporary) visit from Heaven. We ask whether or how we might manage to correlate these competing portraits of Jesus. Structure: We have two lectures and one discussion section each week. Conversation is always welcome. We engage in close readings of the Gospel of Mark, thought to be the oldest gospel that still survives intact, as well as parts of other biblical and apocryphal texts from ancient Christianity. Students write a brief report (1-2 pp.) on assigned topics or problems every week; these reports form the basis of discussion in our Tuesday or Thursday sections. Brief quizzes each

week test reading comprehension.
Class time: 65% lecture, 35% discussion
Work load: 80 pages of reading per week, 30 pages of writing per semester, 1 exams, Read the assigned texts, show up for class, and be prepared to talk in section. Produce weekly brief
Grade: 25% final exam, 40% written reports/papers, 20% quizzes, 15% class participation
Exam format: There is a take-home final exam, in which students write essays evaluating the different reconstruct

Clas 3024 Age of St. Augustine of Hippo
(Sec 001); Same as: CLAS 1024; prereq—=1024; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3 cr
Instructor: Nicholson, Oliver **!!UC Outstanding Teaching Award!!**
This course is an introduction to a formative period in the history of Europe and the Near East. The years 365-500 A.D. saw Christianity taking root as the dominant religion of the Roman Empire, it saw developing relations between Rome and the Persian Empire, it saw Western Europe threatened by warlike horsemen from the steppes of central Asia and invaded by Germanic tribes who came eventually to form the nations of modern Europe. We shall study these historical changes across a wide range of civilizations, from the savvy Huns and their fearsome leader Atilla, the "Scourge of God", to the solemn ceremonial of the early Byzantine court, and the lively city of Constantinople which surrounded it. We shall also consider in detail the writings of the two most influential authors of the period, Augustine's "Confessions" and Boethius's "Consolation of Philosophy". The emphasis of all readings will be on the texts written at the time (in English translation). Everyone will write an essay. This will be history with the people left in. Come and meet folk like Augustine who are far distant in time but with preoccupations that are vividly recognizable now.
Class time: All lecture and discussion
Work load: 2 exams, 1 papers
Grade: 10% mid-semester exam(s), 40% final exam, 50% written reports/papers
Exam format: Gobbets—passages from ancient authors set for comment. Explanation in Class.

Clas 5080 New Testament Proseminar
(Sec 001); Same as: RELA 5080; prereq—1082 or 3072 or equiv; 3 cr
Instructor: Sellew, Philip H
Paul, Corinth and Rome: This course focuses on the early Christian communities of Corinth and Rome, as known chiefly from the letters of the Apostle Paul. Much of the class will involve close reading and discucssion of three New Testament books: Romans, First Corinthians, and Second Corinthians, along with some additional texts that speak to the connections between these communities in the first and second centuries. A second main interest of the course will be to set these early Christian groups into the social-historical setting of Corinth and Rome in the mid-first century. Drawing on archaeology, historical reports, inscriptions and other non-literary sources, we will try to locate the Christians of these Greco-Roman cities in their ancient landscapes. We will discuss possible connections with Diaspora Judasim and other salvation religions of the Mediterranean world. We will analyze the membership of these groups from the perspectives of gender, social class and economic resources. The class will be run as a discussion seminar. The main textbooks (in addition to the Bible) will include Jerome Murphy O'Connor, "St. Paul's Corinth"; Wayne Meeks, "The First Urban Christians"; Gerd Theissen, "The Social Setting of the Early Christians"; and Dale Martin, "The Corinthian Body". Students will make presentations and prepare a final research paper.
Class time: 20% lecture, 80% discussion
Work load: 100 pages of reading per week, 15 pages of writing per semester, 1 papers
Grade: 35% written reports/papers, 25% in-class presentations, 40% class participation

Clas 5103 Hellenistic and Early Roman Art and Archaeology
(Sec 001); same as ARTH 5103, prereq—Clas/ArtH 3008, jr or instr consent; 3 cr
Instructor: Cooper, Frederick A **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
This course covers artistic endeavor from about 338 B.C. to 30 B.C. That is to say, the period extending from the rise of Alexander the Great to the death of Kleopatra VII a year subsequent to the defeat in 31 B.C. of her and Antony's forces by Octavian at Actium. Alexander the Great (356-323 B.C.) is the formidable personality who not only redefined Greek culture but also was responsible for the diffusion of Hellenism to the east as far away as India and into Egypt. The rulers succeeding Alexander more often than not were self-indulgent patrons of the arts. There is an abundance and a magnificence to this culture which nonetheless gives rise to scholarly controversy. Mixed metaphors in iconography obscure intended meanings; Roman art collecting of Greek originals and the Roman production of copies, fakes, and imitations for this art collector's market leave behind a mixed and confusing legacy. This makes the material of this course both stimulating and challenging.
Class time: 60% lecture, 20% discussion, 20% student reports
Work load: 25 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 paper, reports at museum
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 20% in-class presentations
Exam format: Slides and essay
Course URL: clvl.cla.umn.edu

Clas 5251 Archaeology of Herodian Israel
(Sec 001); Credit will not be granted if credit has been received for: RELA 5251, RELS 5251; A-F only; prereq—One course in [archaeology or ancient history] or grad student; 3 cr
Instructor: Berlin, Andrea
In this course, we will study art, architecture, and household goods from archaeological sites in Israel dating from the reign of King Herod the Great (37-4 B.C.). We will first focus on the constructions by Herod himself: his fabulous palaces (eg., Masada, Jericho, Herodium, Caesarea), as well as the magnificant religious structures he built for his various subjects (eg., the Temple in Jerusalem for Jews, Roman-style temples at Caesarea and Samaria for pagans). Herod's buildings exhibit a mix of Roman, Near Eastern, and Hellenistic Greek styles, which is understandable given his position and the period in which he lived: he was a friend of Augustus Caesar, the first emperor of Rome; a Near Eastern monarch in the tradition of the Assyrians and Persians; and an artistic patron of Hellenistic Greek culture. We will next concentrate on remains from both Jewish and pagan settlements throughout Herod's kingdom. These exhibit an astonishing variety, and reflect the diversity of Herod's subjects. Study sites will include Jerusalem, where the Jewish aristocracy lived; Qumran, village of the sect who wrote the Dead Sea Scrolls; Gamla, a prosperous Jewish village in the Golan Heights; and Caesarea, the city and harbor that Herod built for the comfort and prosperity of his pagan subjects. The course readings will consist of contemporary literary sources and excavation reports. The target audience is graduate students and committed undergraduates with relevant preparatory work.
Class time: 50% lecture, 25% discussion, 25% student reports
Work load: 50 pages of reading per week, 30 pages of writing per semester, 3 papers
Grade: 75% written reports/papers, 25% in-class presentations
Exam format: There are no exams.

Communication Disorders
115 Shevlin Hall; 612-624-3322

CDis 3301 Introduction to Acoustics
(Sec 001); 3 cr
Instructor: Speaks, Charles E **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
Why is a "sonic boom" created when an airplace exceeds the speed of sound? Why is a foghorn designed to emit a low-pitched sound instead of a high-pitched whistle? If you are hunting in the woods, why is your distant prey more likely to hear you if it is downwind from you? How do "whispering galleries" work? In what way do echoes off a canyon wall behave like billiard balls bouncing off rails on the billiard table? When you contemplate purchasing a stero system, what does the salesperson mean by terms such as frequency response, noise floor, dynamic range, signal-to-noise ratio, decibels, percentage of harmonic distortion, and so on? The course is designed to teach the fundamental concepts of acoustics, particularly for students in the behavorial and social sciences. Computer animations are used to help depict rapidly changing acoustic events,
Class time: 100% lecture
Work load: 20 pages of reading per week, 4 exams
Grade: 67% mid-semester exam(s), 22% final exam, 10% problem solving
Exam format: Multiple choice

CDis 3304 Phonetics
(Sec 001); 3 cr
Instructor: Munson, Ben
The primary objective of this course is to teach students how to phonetically transcribe the languages of the world. Course participants will gain knowledge and understanding of: a. How to phonetically transcribe speech. b. Phonetic diversity among dialects of English. c. Phonetic diversity among languages of the world. d. Theories of phonetics. e. Phonetic

characteristics of individuals with speech, language, and hearing disorders. This course will be taught with a variety of multimedia tools, with an emphasis on student participation.
Class time: 60% lecture, 10% discussion, 30% laboratory
Work load: 40 pages of reading per week, 2 exams, 7 quizzes, 6 homework assignments
Grade: 30% mid-semester exam(s), 30% final exam, 15% quizzes, 25% problem solving
Exam format: Multiple choice, T/F, short answer, transcription

CDis 3402W Major Project in Speech and Hearing Science
(Sec 001); S-N only; prereq—Jr or Sr CDis major; 3 cr
Instructor: STAFF
Students registered for this course will: (1) Conduct a series of clinical observations of clients and patients across a range of ages, communication disorders, and clinical settings. (2) Write observation reports using appropriate professional style and vocabulary to describe different clinical activities, including diagnostics, intervention, and functional assessments. (3) Conduct peer reviews of classmates' writing samples to improve skills in editing and written critique. (4) Read five clinical application articles from professional journals that relate to one of your clinical case observations. (6) Present case studies in class based on observations
Class time: 60% lecture, 10% discussion, 20% laboratory, 10% External clinical observation reports
Work load: 25 pages of reading per week, 15 pages of writing per semester, 1 papers, Clinical observation reports
Grade: 80% written reports/papers, 20% lab work

CDis 4301 Neural Bases of Communication
(Sec 001); 3 cr
Instructor: Kennedy, Mary R T
This course is intended to provide students who are majoring in Communication Disorders with an overview of neuroanatomy, neurophysiology, and neuroscience. Special emphasis will be placed on the structural and functional relationships necessary for speech, language and hearing. Topics will include: gross anatomy of central and peripheral nervous systems; basic principles of neuroscience; neural embryological development; motor and sensory systems; visual and auditory systems; limbic system; reticular formation, and hemisphere and cortical specialization. Current diagnostic techniques and clinical neuropathologies associated with communication disorders will also be introduced.
Class time: 60% lecture, 25% discussion, 15% laboratory
Work load: 30 pages of reading per week, 8 pages of writing per semester, 3 exams, 3 laboratory assignments
Grade: 25% mid-semester exam(s), 25% final exam, 20% quizzes, 5% lab work, 25% , mid-semester exam
Exam format: multiple choice, fill-in, short answer

CDis 4601 Language Disorders
(Sec 001); prereq—3303 or instr consent; 3 cr
Instructor: Kohnert, Kathryn J
This course will introduce the advanced undergraduate student to a wide range of language disorders in both children and adults. Prior study of normal language acquisition and use is required (e.g., CDis 3303). Course readings and lectures are designed (1) to provide an overview of developmental and acquired language disorders across the life-span: (2) to highlight the ways in which language disorders and delays differ from typical language functioning across development; and (3) to describe the general goals and procedures used in language assessments and clinical intervention. This course is appropriate for both majors and non-majors in Communication Disorders. Material is presented in a lecture format, with clinical case studies used for discussion. Both a textbook and supplemental readings are required.
Class time: 80% lecture, 20% discussion
Work load: 30 pages of reading per week, 6-8 pages of writing per semester, 3 exams
Grade: 50% mid-semester exam(s), 25% final exam, 25% problem solving
Exam format: Multiple choice

CDis 5401 Counseling and Professional Issues
(Sec 001); prereq—4501 or 4601 or 4801 or instr consent; 4 cr
Instructor: Glaze, Leslie
This class introduces students to the professions of audiology and speech-language pathology, and discusses current professional issues related to clinical practice and service delivery. These issues include treatment outcomes, professional regulation, ethical dilemmas, interdisciplinary team roles, and counseling skills designed to assist clients in their adjustments to and recovery from communication disorders. This course will include lecture, small group discussion of topics, problem-solving activities, and independent writing activities. Students also conduct three projects that provide direct experience in important professional activities and counseling strategies applicable to communication disorders.
Class time: 75% lecture, 25% discussion/small group problem-solving activities
Work load: 20-40 pages of reading per week, 3 projects and/or class presentations, journal writing
Grade: grades based on journals, projects, and class presentations/participation

CDis 5602 Phonological Disorders
(Sec 001); prereq—3304, 4601 or instr consent; 3 cr
Instructor: Munson, Ben
This course will teach students the nature, assessment, and treatment of phonological disorders in children. A variety of multimedia tools will be used. Class projects will give students the opportunity to complete standardized assessments, select therapy goals, and develop therapy materials. Topics include normal phonological development, theories of phonological acquisition, dialectical and cross-linguistic differences in phonological acquisition, etiological factors in phonological disorders, assessment, goal selection, and treatment methods. Students will be given an introduction to the nature, assessment, and treatment of deficits in phonological awareness in school-aged children.
Class time: 70% lecture, 20% discussion, 10% laboratory
Work load: 50 pages of reading per week, 12 pages of writing per semester, 2 exams, 3 papers
Grade: 30% mid-semester exam(s), 30% final exam, 20% written reports/papers, 20% special projects
Exam format: T/F, multiple choice, essay

CDis 5603 Child Language Disorders: Assessment and Intervention
(Sec 001); prereq—[3303, grad student] or instr consent; 4 cr
Instructor: Windsor, Jennifer
This course focuses on assessment and intervention for children with language impairments, including issues relevant to prelinguistic communication as well as language in the preschool years through adolescence. Several populations at risk for language impairments will be discussed (e.g., children with learning disabilities, developmental disabilities, and autism). The course has both theoretical and practical aspects, and includes a laboratory component.
Class time: 50% lecture, 25% discussion, 25% laboratory
Work load: 30 pages of reading per week, 20 pages of writing per semester, 3 exams, Lab assignments
Grade: 40% mid-semester exam(s), 30% final exam, 20% special projects, 10% lab work
Exam format: Multiple choice, short answer, and essay

CDis 5993 Directed Study
(Sec 001-012); max crs 18; 18 repeats allowed; prereq—instr consent; 1-12 cr
Instructor: STAFF
Directed readings and preparation of reports on selected topics.
Class time: 100% individual meetings with students
Work load: varies with topic and credits
Grade: varies with topic and credits

Communication Studies
225 Ford Hall 612-624-5800

Comm 1101 Introduction to Public Speaking
(Sec 001-021); 3 cr
Instructor: STAFF
Instruction in basic oral communication skills, including structure, evidence, clarity of purpose, style and delivery. Students are expected to do research as well as speak before peers with reduced anxiety. Practical speaking emphasizes audience adaptation and includes developing analytical skills to evaluate oral discourse. Teaching methods include discussion, lectue, self-evaluations, and evaluations of peers and others. Required of Speech-Communication majors but aimed at undergraduates, especially lower-division students, who are interested in improving their personal communication skills.
Class time: 25% lecture, 25% discussion, 50% laboratory
Work load: 10-15 pages of reading per week, 7-10 pages of writing per semester, 2 exams, 3 papers
Grade: 10% mid-semester exam(s), 10% final exam, 10% written reports/papers, 10% quizzes, 50% in-class presentations, 10% class participation
Exam format: combination

Comm 1313W Analysis of Argument
(Sec 001-007); meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
There are two broad goals of the course: To make sure students have adequate writing skills for future coursework in communication, and to enhance students critical thinking skills through the teaching of argument analysis. Each of these broad goals can be broken down to specific teaching objectives that can be built into your course design. SPCH 1313 has been designated a writing intensive course that is required of all speech-communication majors. Specific writing assignments will vary from course to course. All instructors are encour-aged to include at least one writing assignment that involves making an explicit argument that advocates some fact, policy, value, etc., and at least one that involves making an explicit evaluation of an argument using the tools of argument analysis taught in class.

Comm 3190H Honors Course: Research Seminar in Communication
(Sec 001); max crs 6; A-F only; prereq—Honors candidate in Spch, instr consent, dept consent; meets HON req of Honors; 3 cr
Instructor: STAFF
This is not an ordinary course and the Guide's format does not fit it. It is a seminar intended for honors students majoring in speech communication who are or will be writing honors theses. The emphasis in the seminar will be research and writing as the plans of the participants point us. The logic of the offering is that individuals working in their research and writing will help one another in discussing their work. Students taking the seminar will be expected to have plans as far as this time permits. The spring semester is intended for students who have completed the course in fall. Questions? Contact Robert L. Scott, 435 Folwell Hall. 612-624-6832. Scott033@tc.umn.edu

Comm 3201 Introduction to Electronic Media Production
(Sec 001-003); A-F only; prereq—1101 or instr consent; 3 cr
Instructor: STAFF
The goal of this course is to enhance understanding of television as a communicative medium, a medium which is unique in the potential for impact in the communication of ideas. In this class you will be expected to: 1) Learn the fundamental techniques of in-studio Live-On-Tape video production; 2) Learn to write and produce as part of a video production team; 3) Learn the communicative aspects of visual and aural aesthetics; 4) Learn to write competent critical analyses of visual media. This is NOT a vocational or technical training course. The focus of the course is on effective communication of a message using television as the medium. The projects for which you will be responsible are designed to help you develop a critical attitude toward both producing and consuming visual media messages. Required text: H. Zettl "Sight, Sound and Motion: Applied Media Aesthetics" 2nd edition. The course will be web enhanced, but the URL is not currently available.
Class time: 25% lecture, 25% discussion, 50% In-studio television production
Work load: 30 pages of reading per week, 10-20 pages of writing per semester, 2 exams, 1-3 papers, Television production
Grade: 15% mid-semester exam(s), 15% final exam, 5% written reports/papers, 10% special projects, 10% class participation, 40% , Television production
Exam format: Short answer, multiple choice, True/False

Comm 3211 Introduction to U.S. Electronic Media
(Sec 001); 3 cr
Instructor: Vavrus, Mary Douglas
SPCH 3211 is a basic course in electronic communication. It is not a production course; rather, it is a course in which we survey different aspects of the electronic media and their users in the U.S., starting with the history of radio and continuing through contemporary theories of media culture. Because the mass media, and especially the electronic media, are crucial parts of our everyday private and public lives, it is important to understand them-and understand them in context. In this course, we will be concerned with placing electronic media in historical, political, cultural, and technical context so that we can view them as complex entities. Thus, this course is intended to give students a general understanding of electronic media, to acquaint them with major debates surrounding electronic media, and to make them more active and knowledgeable media critics.

Comm 3402 Introduction to Interpersonal Communication
(Sec 001, 002); meets CLE req of Social Science Core; 3 cr
Instructor: STAFF
Communication both affects and reflects personal relationships; that is, it tells us where we and the other are in terms of intimacy, trust, etc., and it helps to determine where we will go in that relationship. Spch 3402 focuses on communication in intimate relationships, especially friendships and dating relationships. The course contains information on how to read people's interpersonal needs (so as to avoid misunderstanding), how to anticipate problems in development, and how to handle conflict productively. 3402 is a course about real-world problems and the practical skills it takes to manage them.
Class time: 70% lecture, 30% discussion
Work load: 50 pages of reading per week, 30 pages of writing per semester, 3 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 40% written reports/papers
Exam format: multiple choice
Course URL: www.comm.umn.edu/~akoerner/courses/3402/

Comm 3411 Introduction to Small Group Communication
(Sec 001-006); 3 cr
Instructor: STAFF
In a democratic society, small groups are utilized widely in decision-making. How the members of those groups communicate with one another can have profound consequences for the legitimacy of group decisions, as well as for their quality. Spch 3411 is designed to help undergraduates improve their group communication skills. The emphasis is on the practical details of communication in groups, with emphasis both on maintaining positive relationships with other group members and on sharpening critical skills.
Class time: 30% lecture, 20% discussion, 50% group exercises
Work load: 50 pages of reading per week, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/papers, 20% in-class presentations, 10% class participation
Exam format: multiple choice, essay

Comm 3422 Interviewing and Communication
(Sec 001); A-F only; prereq—1101 or instr consent; 3 cr
Instructor: STAFF
This course covers techniques and theory relevant to planning, conducting, and evaluating various types of information interviews. In the course we deal with theory, concepts and skills of interviewing, focusing on the communication process. The course includes both examination of theory and research on the interview as a communication event, and has significant actual skills practice in which students role play interviews in class and conduct short interviews outside of class. The course normally includes one exam or quiz, 3 to 5 short papers evaluating your interview communication skills, and considerable class discussion of student interviews and taped interview examples. Be prepared to work to develop interview skills in class, and to spend time outside of class doing short interviews. The course is valuable for those using interview process in business, education, government and research settings.
Class time: 25% lecture, 10% cctv, 15% discussion, 35% laboratory, 15% outside of class assignments
Work load: 30 pages of reading per week, 10-20 pages of writing per semester, 2 exams, 3-5 papers, 5 in-class role plays
Grade: 40% mid-semester exam(s), 40% written reports/papers, 10% class participation, 10% lab work
Exam format: Multiple choice, true/false, short answer

Comm 3431 Persuasion Theories
(Sec 001); prereq—Soph recommended; meets CLE req of Social Science Core; 3 cr
Instructor: Kinney, Terry Alan
This course examines the process of persuasion using several theoretical approaches. We will focus on interpersonal, cognitive, affective, sociological, and cultural theories to explain attitude change. Students will be expected to design a group project in which they develop a marketing and advertising strategy to sell a product, idea, or service for college students.
Class time: 50% lecture, 20% discussion, 30% laboratory
Work load: 25 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers
Grade: 20% mid-semester exam(s), 20% final exam, 10% written reports/papers, 10% special projects, 10% in-class presentations, 20% class participation, 10% problem solving
Exam format: Multiple choice

Comm 3441 Introduction to Organizational Communication
(Sec 001); prereq—1101 or equiv; 3 cr
Instructor: STAFF
This course is designed to help students understand organizational communication. It combines lectures about theories for that understanding and an experiential learning component that allows students to apply those theories. The approach is as realistic as possible. The written work is designed to have students apply and critically evaluate the theories in the course. The

course is generally made up of communication and business majors but is relevant for anyone planning to work in organizations.
Class time: 66% lecture, 33% experiential learning
Work load: 40 pages of reading per week, 28 pages of writing per semester, 2 exams, 2 papers
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/papers, 30% , experiential learning
Exam format: essay

Comm 3451W Intercultural Communication: Theory and Practice
(Sec 001); prereq—Planning an intercultural experience; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
The course is designed for students who are preparing for an intercultural experience (study abroad, work abroad, Peace Corps, international students). We will discuss basic cultural differences in nonverbal communication, communication styles, individualism and collectivism, values as well as cultural adaptation and culture shock. By the end of the course you will gain a greater understanding of your own cultural assumptions and learn ways in which you can facilitate your transition to other cultures.
Class time: 70% lecture, 30% discussion
Work load: 2 exams, 2 papers

Comm 3452W Communication and the Intercultural Reentry
(Sec 001); prereq—Return from an intercultural experience; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
Have you been to another culture? Here's your chance to build on that experience. This course is an exploration in culture and the stories we tell about it. Appropriate for students who have returned from study abroad and international students. Readings and class discussions explore what it is like to come "home" or "reenter" your home culture. Social scientific theories are applied to the reentry experience as well as the past experiences of other students like yourself. Join us to continue the learning experience that you started as a world traveller and as an intercultural person.
Class time: 20% lecture, 80% discussion
Work load: 25 pages of reading per week, 20 pages of writing per semester, 3 papers, 1 other journal
Grade: 40% written reports/papers, 40% in-class presentations, 20% class participation

Comm 3615 Argumentation
(Sec 001); prereq—Soph; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: STAFF
This course extends the principles of Spch 1313 to broader philosophies, methods of analysis, and social controversies. It considers the idea of argument(s) from multiple perspectives including logic, dialectics, and rhetorical performance. Class discussion covers topics such as structured reasoning, informal conversation, familial arguments, debates in technical professions, communication ethics, and public/social argumentation. Moreover, we will apply the philosophies, theories, and methods we discuss to two contemporary debates: U.S. race relations and freedom of speech. This course seeks to increase the student's research, writing, and reasoning skills as well as his or her knowledge.

Comm 3625 Communication Ethics
(Sec 001); A-F only; prereq—1102 or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: STAFF
Speech 3625 is designed for undergraduate majors and non-majors who wish to learn more about identifying, analyzing, and dealing with ethical issues and problems in a variety of human communication situations. Course content includes overview of ethics concepts and theories, methods of critical analysis, examination of ethical problems in a variety of communication contexts, and much practical analysis of ethical issues via case studies, role plays and examination of media and other communication artifacts. The course stresses practice and application of principles to actual situations rather than theory. We will examine ethical standards based on various philosophical, psychological, political, and situational perspectives. Communication contexts to be examined include: interpersonal, small group, organizational, cross-cultural, public speaking, as well as electronically mediated (radio, TV, Internet, etc,) situations. Topics may include: truth telling, secrecy, levels of trust, freedom of speech, uses of ambiguity, privacy, bias, fairness, responsibility, power, and stereotyping. The main text is R.L. Johannesen, Ethics in Human Communication. It will be supplemented with one or two added texts, depending on ethical issues current when course is taught.
Class time: 20% lecture, 10% cctv, 30% discussion, 40% Case studies, role plays, media examples
Work load: 20—40 pages of reading per week, 10—15 pages of writing per semester, 2—3 exams, 2—3 papers
Grade: 20% mid-semester exam(s), 30% final exam, 40% written reports/papers, 10% class participation
Exam format: Multiple choice and true/false

Comm 3990 Research Practicum
(Sec 001, 002); max crs 6; 6 repeats allowed; 1-3 cr
Instructor: Koerner, Ascan Felix
Working with faculty in the communication research lab.
Class time: 100% laboratory
Work load: 1 papers
Grade: 10% written reports/papers, 90% lab work

Comm 4291 New Telecommunication Media
(Sec 001); A-F only; prereq—3211 or instr consent; 3 cr
Instructor: Rarick, David L
The course is a broad survey of selected new telecommunication media, emphasizing recent developments in digital communications media used for news, entertainment, and corporate communications. We focus on Digital TV/HDTV, Satellites/DBS, Cable TV, Telephone Networks and the Internet, with heavy emphasis on the Internet. As a result of taking the course, you should: 1) gain understanding of how technological, regulatory, economic, political, and social factors affect the development, structure, and program content of the new media, and 2) develop critical standards for evaluating public policies, program content, economic decisions, and social impacts of new media. No prior knowledge of electronics or computer technology is assumed, but you should know key concepts regarding structures of traditional electronic media (radio/TV/film), and media economics and regualtion upon entering this course. You are also required to have basic knowledge of how to access and search for information on the Internet. The course is aimed at undergraduate students wishing to learn about broad economic, policy, and social implications of new media, rather than the technical opeation of these media. Class format is mix of lecture, discussion and student presentations/projects.
Class time: 50% lecture, 30% discussion, 20% class projects, presentations
Work load: 40 pages of reading per week, 10-15 pages of writing per semester, 3 exams, 2-3 papers, 1 presentation or group project
Grade: 40% mid-semester exam(s), 20% final exam, 20% written reports/papers, 15% in-class presentations, 5% class participation
Exam format: true/false; multiple choice

Comm 4407 Communication and Conflict
(Sec 001); A-F only; prereq—3401 or instr consent; 3 cr
Instructor: Koerner, Ascan Felix
Conflict is as inevitable a part of human relationsips as is cooperation, but conflict strikes us more deeply. How well we manage conflict has more to do with social progress and the success of romantic relationships than mutual need or love. In this class we examine the nature, causes, and techniques for managing conflict across a wide variety of situations, including societal clashes, psychological turmoil, group decision-making, intimate relationships, and organizational interactions. While each of these situations difffers in important ways, there are commonalities in how conflict functions across them. We will look to those commonalities to understand the role of communication in conflict.
Class time: 60% lecture, 25% discussion, 15% Group-work
Work load: 75 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, Two in-class presentations
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 5% in-class presentations, 15% class participation
Course URL: www.comm.umn.edu/~akoerner/courses/4407/

Comm 5261 Communicative Processes in Electronic Media
(Sec 001); prereq—3211 or instr consent; 3 cr
Instructor: Vavrus, Mary Douglas
Speech 5261 explores the political economy of media culture. To do this we will read, discuss, and write about works that theorize and analyze the economic relationships and cultural aspects of U.S. media, and the ways in which they influence one another. The course is divided into two main segments, each of which specifically relates to either the political economy of media institutions or the cultural analysis of media. We will discuss topics that include the following: the political economy of media organizations; power roles that structure media organizations; cultural approaches to analyzing media; the critical analysis of public relations and advertising in contemporary culture; and the commodification of media audiences. You should be prepared to read extensively (about 100 pages per week), discuss, and write about these subjects.
Class time: 10% cctv, 90% discussion

Work load: 100 pages of reading per week, 20 pages of writing per semester, 2 exams, 3 papers
Grade: 25% mid-semester exam(s), 25% final exam, 33% written reports/papers, 17% in-class presentations
Exam format: Essay

Comm 5406 Communication and Gender
(Sec 001); prereq—One women's studies course or instr consent; 3 cr
Instructor: STAFF
How gender affects verbal communication. Development of analytical skills through readings, exercises, research that raises awareness of the power of language and the influence of gender prescriptions. Comparisons across languages where possible.

Comm 5421 Quantitative Methods in Communication Research
(Sec 001); A-F only; prereq—3401 or instr consent; 3 cr
Instructor: Hewes, Dean E
Spch 5421 is a conceptual introduction of social science research methods for both undergraduates and graduates. The methods emphasized include both general material and material of special interest to communication research, especially the development and utilization of coding schemes. Topics include beginning descriptive and inferential statistics, but the primary focus is on assessing the reliability and validity of operational organizations and "levels of measurement. Problems and how to handle them. Students need only basic mathematical skills. There is some hand computation, but most involves the use of the SPSS computer package. Four outside lab sessions of approximately 1/2 hour each train students in the use of this statistical software.
Class time: 80% lecture, 20% laboratory
Work load: 50 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% lab work
Exam format: Essay

Comm 5431 The Process of Persuasion
(Sec 001); prereq—3431; 3 cr
Instructor: Kinney, Terry Alan
In general, this course examines the theoretical and empirical processes of social influence, including persuasion, compliance gaining, and coercion. The specific focus and subject matter of the course changes each semester that it is offered to include social information campaigns, message effects theory and research, and verbal aggression. The course is largely discussion in its orientation and as such requires students to present relevant class material and to guide in class discussions. Students are also expected to write a final paper.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 50-100 pages of reading per week, 20 pages of writing per semester, 1-2 exams, 1 papers
Grade: 10% mid-semester exam(s), 10% final exam, 30% written reports/papers, 20% special projects, 10% in-class presentations, 10% class participation, 10% lab work
Exam format: Multiple choice and essay

Comm 5441 Communication in Human Organizations
(Sec 001); prereq—9 cr social science, 3441 or instr consent; 3 cr
Instructor: Kovel-Jarboe, Patricia
This course examines communication which takes place in the context of human organizations. We will focus on the various theories which attempt to explain organizational communication, and, with those as filters, we'll consider a range of situations and challenges which face organizations and their members. This course uses several methods to cover these materials including readings, lectures, class and small group discussions, written assignments (such as case studies and a paper), quizzes, observation and interviews. This is a course with significant writing—a term paper/research project is required and several short writing assignments are spread throughout the term. Course Objectives: 1) Describe the nature of communication in human organizations. 2) Understand, place in historical context, and apply theories of organizational communication. 3) Understand key factors which influence organizations and their members. 4) Identify and use appropriate perspectives and methodologies to diagnose communication-related issues and problems in organizations. 5) Develop their own strategies for discovering and explaining the many phenomena of organizational and individual interactions.
Class time: 40% lecture, 40% discussion, 20%
Work load: 35 pages of reading per week, 25-40 pages of writing per semester, 1 papers, Varies—students choose from several options.
Grade: 80% written reports/papers, 10% in-class presentations, 10% class participation, Class participation and attendance- 10%.
Exam format: Varies by exam

Comparative Literature
350 Folwell Hall; 612-624-8099

CLit 5910 Topics in Comparative Literature: Diaspora Poetics
(Sec 001); max crs 24; 8 repeats allowed; 3 cr
Instructor: Morris, Leslie C
This course will explore what a poetics of Diaspora might mean in a range of literary, film, and visual texts from diverse geographical locations. We will explore how notions of the border, migration, nationhood, immigration, displacement, hybridity, dispersion, transnationalism, deterritorialization, the loss of origin and "reality", and nostalgia for the homeland constitute what we will be calling Diaspora poetics. The course will also examine the shifts within the term "Diaspora" in a variety of cultural and geographical contexts, with special emphasis on the complex reconfigured social and cultural spaces of Europe today. Discussion will explore the relationship between interior poetic spaces and geographical spaces of dispersion; the tension between poetic utterance and assertion and negation of place; the relationship between place and exile; and the critical interrogation of the meaning of "origin". Texts by, among others, Edmond JabFs, AimT CTsaire, Paul Celan, Octavio Paz, Fernando Pessoa, Italo Calvino, Jean Baudrillard, Theresa Cha, Adunis, Mahmoud Darwish, Yehuda Amichai, Edward Said, James Clifford, Daniel Boyarin and Jonathan Boyarin. This course is intended for graduate students and advanced undergraduates.
Class time: 20% lecture, 80% discussion
Work load: 150-200 pages of reading per week, 20-25 pages of writing per semester, 1 papers
Grade: 85% written reports/papers, 15% class participation

CLit 5992 Directed Reading in Comparative Literature
(Sec 001); max crs 9; 9 repeats allowed; prereq—instr consent; 1-3 cr
Instructor: STAFF
Directed readings—arranged

Comparative Studies in Discourse, Society
350 Folwell Hall; 612-624-8099

CSDS 5302 Aesthetics and the Valuation of Art
(Sec 001); Same as: CSCL 5302; 3 cr
Instructor: Schulte-Sasse, Jochen
Course readings will include major essays on the relationship of aesthetic theory, ideology, and value/evaluation of art from Friedrich Nietzsche and Walter Benjamin to Jan Mukarovsky, Louis Althusser, Paul de Man, Barbara Herrnstein Smith, Hayden White, Stephen Heath, Kaja Silverman and Teresa de Lauretis. Issues the course will focus on involve the role of aesthetics since the eighteenth century, the relationship between ideology and value/evaluation, the role of identification and the desire for identity in the evaluation of art, and the politics of evaluation.
Class time: 30% lecture, 70% discussion
Work load: 50-70 pages of reading per week, 4 papers
Grade: 80% written reports/papers, 20% class participation
Exam format: essay

CSDS 5993 Directed Study
(Sec 001); max crs 9; 9 repeats allowed; prereq—instr consent; 1-3 cr
Instructor: STAFF
Directed study—arranged

Computer Science
4-192 EE CSci Building; 612-625-4002

CSci 1103 Introduction to Computer Programming in Java
(Sec 001); 4 cr
Instructor: Barry, Phillip Jerome
CSci 1103 is an introductory programming course for students who are not Computer Science majors or majors in another IT discipline (though a few allow CSci 1103 to satisfy the programming requirement). This course is appropriate for students with little or no programming experience. The programming language used is Java. Student will learn to write the basics of computer programming in the Java programming language. Problem solving and program design will be an important focus of the course. In addition to programming, the course will introduce basic information about how computers are organized so that they can execute programs, and the system software needed to translate and run programs.

Class time: 50% lecture, 10% discussion, 40% laboratory
Work load: 25 pages of reading per week, 3 exams, programming and lab work
Grade: 30% mid-semester exam(s), 25% final exam, 10% special projects, 5% quizzes
Exam format: short answer and writing code
Course URL: www.itlabs.umn.edu/classes/Fall-2002/csci1103/

CSci 1107 Introduction to FORTRAN Programming for Scientists and Engineers

(Sec 001); prereq—Math 1271 or Math 1371 or instr consent; 3 cr
Instructor: Swanson, Charles D
This course will cover the principles of computer programming and algorithm development using Fortran. Topics include introduction to computers and computing, program development, Fortran programming language syntax, and elementary numerical methods for scientists and engineers.
Class time: 100% lecture
Work load: 3 exams, One programming assignment per week
Grade: 30% mid-semester exam(s), 30% final exam, 40%, Programming assignments
Exam format: Problems

CSci 1121 Introduction to the Internet 1

(Sec 001); A-F only; 4 cr
Instructor: Barry, Phillip Jerome
Concepts of the internet, analog vs digital communication, networking, packet switching, software protocols. E-mail, search engines, file transfer (ftp), remote login (Telnet). Creating Web pages using HTML and Cascading Style Sheets. Advanced programming concepts such as Java, Perl, and CGI.
Class time: 80% lecture, 10% discussion, 10% in class exercises
Work load: 50 pages of reading per week, 10 pages of writing per semester, 3 exams, weekly programming labs
Grade: 30% mid-semester exam(s), 25% final exam, 10% special projects, 30% lab work, 5% problem solving
Exam format: mixed; some short answer, some problem solving, some programming
Course URL: www.itlabs.umn.edu/classes/Fall-2002/csci1121/

CSci 1901 Structure of Computer Programming I

(Sec 001, 010); prereq—concurrent enrollment Math 1271 or equiv or instr consent; 4 cr
Instructor: Dovolis, Chris John
CSci 1901 is the first required course for Computer Science majors. CSci 1901 is a prerequisite for CSci 1902 and many other CSci courses. Therefore, students planning to major in computer science and non-majors who plan to take other more advanced computer science courses should take CSci 1901 first. CSci 1901 is a challenging course that covers many fundamental programming and software design principles in a practical manner. The following topics are covered: data abstraction, data representations, procedural abstraction, recursion, iteration, lists, tables, intro to object oriented programming and intelligent data. The Scheme programming language is used to implement programs using these concepts. The text for the course is Abelson and Sussman's "Structure and Interpretation of Computer Programs". CSci 1901 is very time consuming, and the pace is quick. Be sure to allot plenty of time for this course. There is a very large programming component to this course. Students may work in pairs on programming assignments.
Class time: 70% lecture, 30% discussion
Work load: 25 pages of reading per week, Ten programming assignments
Grade: 30% mid-semester exam(s), 30% final exam, 40%, Programming assignments
Exam format: Programming
Course URL: www.itlabs.umn.edu/classes/Fall-2001/csci1902

CSci 2011 Discrete Structures of Computer Science

(Sec 001); prereq—Math 1272 or Math 1372 or instr consent; 4 cr
Insturctor: Othmer, Bobbie A
Foundations of discrete mathematics. Sets, sequences, functions, big-O, propositional and predicate logic, proof methods, counting methods, recursion and recurrences, relations, trees/graphs fundamentals.
Class time: 75% lecture, 25% discussion
Work load: 25-30 pages of reading per week, 4 exams, 10 weekly problem assignments
Grade: 42% mid-semester exam(s), 28% final exam, 30% problem solving
Exam format: Problem solving, proofs, short answers
Course URL: www.itlabs.umn.edu/classes/Fall-2002/csci2011/

CSci 2031 Introduction to Numerical Computing

(Sec 001); Credit will not be granted if credit has been received for: CSCI 5301, CSCI 5301; prereq—Math 2243 or instr consent; 4 cr
Instructor: Saad, Yousef
CATOLOG DESCRIPTION: Introduction to numerical computing for CSci, mathematics, and science/engineering students. Uses Mathematica or Matlab to cover numerical error, root finding, systems of equations, interpolation, numerical differentiation and integration, least squares, and differential equations. OVERALL DESCRIPTION: This course offers a practical introduction to Numerical Computing. The course is designed to be of interest to students in Computer Science, Mathematics and other science and engineering disciplines. It is required of CSci majors in IT (those pursuing an B.S. degree). General principles of Numerical Analysis are taught, including those concepts and tools involving modeling of real continuous mathematical or engineering problems. Since programming is not a major emphasis of this course, labs will utilize an interactive package such as Matlab.
Class time: 75% lecture, 25% discussion
Work load: 3 exams, 6 papers
Grade: 40% mid-semester exam(s), 30% final exam, 30% written reports/papers
Course URL: www.itlabs.umn.edu/classes/Spring-2002/csci2031/

CSci 4011 Formal Languages and Automata Theory

(Sec 001); prereq—1902 and 2011 or instr consent; cannot be taken for grad CSci cr; 4 cr
Instructor: Sturtivant, Carl
Finite automata and regular expressions; Context-Free Grammars; Turing machines, computability, recursive versus recursively enumerable sets; Introduction to NP-completeness.
Class time: 70% lecture, 30% recitation
Work load: 30 pages of reading per week
Grade: 15% mid-semester exam(s), 40% final exam, 45% problem solving
Exam format: problem solving
Course URL: www.itlabs.umn.edu/classes/Fall-2002/csci4011

CSci 4081W Introduction to Software Engineering

(Sec 001); Credit will not be granted if credit has been received for: CSCI 5801; prereq—4089; [1902, 2011] or instr consent; no cr for grads in CSci; meets CLE req of Writing Intensive; 4 cr
Instructor: Swanson, Charles D
Software engineering is concerned with the cost effective development and evolution of high quality software systems. This course introduces the topic through lectures and by giving students a chance to design, develop and manage a small software project. Topics include software engineering management, problem specification and analysis, system design techniques, testing, implementation, and documentation. This is a writing intensive course so students will complete several papers along with the group project.
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week, 50 pages of writing per semester, 3 exams, 5 papers, Group project
Exam format: Problems, short answer, essay

CSci 4131 Internet Programming

(Sec 001); prereq—credit will not be granted if credit received for: 5131; 4061; 4211 recommended, cannot be taken for grad CSci cr; 3 cr
Instructor: Sturtivant, Carl
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.
Class time: 100% lecture
Work load: 100 pages of reading per week, 2 exams, 11 programming assignments
Grade: 10% mid-semester exam(s), 35% final exam, 55%, Programming assignments
Exam format: Essay
Course URL: www.itlabs.umn.edu/classes/Fall-2002/csci4131

CSci 5107 Fundamentals of Computer Graphics 1

(Sec 001); prereq—credit will not be granted if credit received for: 4107; [4041 or instr consent], fluency in C/C++, mastery of basic concepts in linear algebra; 3 cr
Instructor: Meyer, Gary W
This course provides an introduction to the theory and practice of computer graphics programming. Topics covered will include: scan conversion; anti-aliasing; geometric transformations and projections; hidden surface removal; heirarchial modeling and animation; parametric curves and

surfaces; illumination and shading; texture mapping, and ray tracing. This course targets seniors who are interested in understanding and implementing fundamental computer graphic techniques.
Class time: 90% lecture, 10% discussion
Work load: 10-20 pages of reading per week, 5 pages of writing per semester, 2 exams, 5 programming assignments
Grade: 15% mid-semester exam(s), 25% final exam(s), 10% problem solving, 50% programming assignments
Exam format: Short answer and problem solving

CSci 5115 User Interface Design, Implementation and Evaluation
(Sec 001); prereq—4041 or instr consent; 3 cr
Instructor: Konstan, Joseph Andrew
This is a project-focused course that covers the basics of user interface design, evaluation, and implementation. Students work in groups of 4 or 5 on a semester-long project that includes analysis of the problem domain, user skills, and tasks; iterative prototyping of interfaces to solve the user's needs; several types of interface evaluation including user testing and walkthroughs; and implementation of the final prototype. A limited number of students from non-technical disciplines (e.g., psychology, graphic arts and design, educationa and communications disciplines, etc.) are able to enroll in the course as non-programmers who participate in all aspects of the projects except implementation.
Class time: 40% lecture, 30% discussion, 30% in-class exercises and practice of techniques
Work load: 35 pages of reading per week, 30 pages of writing per semester, 1 exams, 0 papers, Major group project with weekly milestones
Grade: 25% mid-semester exam(s), 60% special projects, 15%, Note: all are approximate figures
Exam format: combined short and medium-length questions
Course URL: www.itlabs.umn.edu/classes/Fall-2002/csci5115

CSci 5201 Computer Architecture
(Sec 001); Same as: EE 5361; prereq—credit will not be granted if credit received for: EE 5361; 2021 or instr consent; 3 cr
Instructor: Voyles, Richard Meredit
The course objective is to introduce the students to the principles of computer architecture. The topics included are the design process, performance and cost analysis, computer arithmetic, controller and datapath design, memory systems, interrupts and pipelining. An implementaion of the MIPS instruction set architecture is used throughout the course to illustrate and implement course concepts. Some homework assignments require VHDL programming. The course is taught alternately by CSci and EE faculty and is appropriate for students of either department. While content is substantially the same, the delivery caters slightly more to CSci or EE in accordance with the professor's home department. The textbook is "Computer Organization and Design", by Patterson and Hennessey. Also required is "VHDL Starter's Guide" by Yalamanchili.
Class time: 95% lecture, 5% discussion
Work load: 40-50 pages of reading per week, 2 exams
Grade: 20% mid-semester exam(s), 30% final exam, 10% quizzes, 20% lab work, 20% problem solving
Exam format: Problem solving
Course URL: www.cs.umn.edu/~voyles/classes.html

CSci 5403 Computational Complexity
(Sec 001); prereq—4041 or instr consent; 3 cr
Instructor: Du, Ding-Zhu
Deterministic and nondeterministic Turing machines, time and space complexity, NP-complete problems, uniform and non-uniform computation model, decision tree, circuit complexity, class NC, P-complete problems.
Class time: 95% lecture, 5% discussion
Work load: 15 pages of reading per week, 50 pages of writing per semester, 3 exams, 4 homeworks (late homework not accepted)
Grade: 40% mid-semester exam(s), 30% final exam, 30% problem solving, two midterm exams
Exam format: problem solving
Course URL: www.cs.umn.edu/~dzd

CSci 5481 Computational Techniques for Genomics
(Sec 001); prereq—4041 or instr consent; 3 cr
Instructor: Karypis, George
This course provides an introduction to the various computational techniques that are used to analyze the biological data generated by genome sequencing, proteomics, and cell-wide measurements of gene expression changes. The topics that are covered include algorithms for singe and multiple sequence alignments, algorithms for sequence assembly, search algorithms for sequence databases, phylogenetic tree construction algorithms, algorithms for gene and promoter prediction, protein structure prediction, statistical methods and data mining algorithms for micro array expression analysis, algorithms for reverse engineering of regulatory networks.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 40% final exam, 30% written reports/ papers
Exam format: Essay

CSci 5511 Artificial Intelligence I
(Sec 001); prereq—2011 or instr consent; 3 cr
Instructor: Gini, Maria L **!!Morse Alumni Award!!**
Textbooks: Stuart Russell and Peter Norvig, "Artificial Intelligence: A Modern Approach", Prentice-Hall, 1995. (Chapters 1-11). Paul Graham, "ANSI Common Lisp", Prentice Hall, 1996. Prerequisites: Knowledge of Data Structures (graphs and trees) and of 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.
Class time: 60% lecture, 40% discussion
Work load: 15-20 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers
Grade: 15% mid-semester exam(s), 25% final exam, 15% special projects, 30% problem solving, 15%, Second mid-term exam
Exam format: Problem solving
Course URL: www.cs.umn.edu/~gini/5511 Textbooks:

CSci 5708 Architecture and Implementation of Database Management Systems
(Sec 001); prereq—5707 or instr consent; 3 cr
Instructor: Shekhar, Shashi
Database management system: Under the hood. Learn concepts to performance tune query processing and on-line transaction processing systems
Class time: 90% lecture, 10% discussion
Work load: 40 pages of reading per week, 2 exams
Grade: 30% mid-semester exam(s), 40% final exam, 30% problem solving
Exam format: problem solving
Course URL: www.cs.umn.edu/ashekhar/5708

Construction Management
101 Wesbrook Hall; 612-624-4000

CMgt 4193 Directed Study
(Sec 001); max crs 16; 4 repeats allowed; prereq—BAS student in Construction Management Program, dept consent; 1-4 cr
Instructor: STAFF
Topic arranged with B.A.S. Construction Management academic adviser. [See B.A.S. web site at www.cce.umn.edu/bas for additional course information.]

CMgt 4196 Construction Management Internship
(Sec 001); max crs 12; 3 repeats allowed; S-N only; prereq—BAS student in Construction Management Program; 3-4 cr
Instructor: STAFF
Professional experience internship requirement for B.A.S. Construction Management program. Subject to faculty adviser approval.

Cultural Studies and Comparative Literature
350 Folwell Hall; 612-624-6039

CSCL 1001 Introduction to Cultural Studies: Rhetoric, Power, Desire
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: Brown Jr, Robert L **!!Morse Alumni Award!!**
How did we become who we are? How did we become "women" or "men," "gay" or "straight"? Where did we get our tastes in clothes, food, music, and decorative arts? And where did we get our political, religious and philosophical beliefs, our sense of what's logical, natural, and believable? Cultural Studies assumes that the world around us (our culture) means, and that its meanings are central in creating us—individually and collectively. And it assumes culture can be "read." CSCL 1001 explores cultural reading, examining the "texts" around us: music videos, television and

film, some paintings and buildings, classical music, magazine ads, poetry, a novel and some "practices" from everyday life: dress, manners and body decoration. The "rhetoric" of culture transmits a view of the world and our loyalty to that view. Its systems of "power" fold us and our texts into large, historical conversations and struggles over ideas and social positions. And the operations of "desire" direct who and what we love, where we find pleasure and how these pleasures figure in the process of making and reproducing culture. It's a basic course for majors and non-majors interested in making sense of their worlds.
Class time: 50% lecture, 50% discussion
Work load: 60 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers
Grade: 25% final exam, 45% written reports/papers, 30% quizzes
Exam format: open-book; short, guided answers

CSCL 1101 Literature
(Sec 001); meets CLE req of Writing Intensive; meets CLE req of International Perspect Theme; meets CLE req of Literature Core; 4 cr
Instructor: STAFF
Lou Reed rewrites "Romeo and Juliet" in a song by the same name on "New York." But his songs never appear in literature anthologies. Why is Shakespeare literature and Lou Reed not? What makes a text—or a reading of it—literature? This course examines texts—oral and written, verbal and non-verbal—from western and other world cultures to develop rich ways of reading, and a body of theory to explain why we read as we do and how we might read differently. The course crosses both history and cultures—from the time of the writing of the Old Testament and the Homeric Epics to the present, and from the western and familiar to the unfamiliar and hidden works and practices of other cultures. Such study is exciting and complicated: how can we understand works from times and cultures entirely different from our own? When the 137th Psalm is done as a reggae song of captivity ('by waters of Babylon, we sat down and wept') it is a very different thing from when it is recited at Passover Sabbath. How do we define the spheres of law, sacred texts, history, philosophy, or politics? And what's at stake? This course introduces the comparative study of reading and writing, and its long history. The readings are genuinely engaging and the questions of theory bear directly on our lives and histories. It's a course for absolute beginners and a good introduction for anyone considering a major in Comparative Literature.
Class time: 75% lecture, 25% discussion
Work load: 50 pages of reading per week, 15 pages of writing per semester, 3 papers
Grade: 85% written reports/papers, 15% class participation
Exam format: Essay.

CSCL 1201 Introduction to Cinema and Media Culture
(Sec 001); Credit will not be granted if credit has been received for: SCMC 1201; meets CLE req of Writing Intensive; meets CLE req of Other Humanities Core; 4 cr
Instructor: Ganguly, Keya
In this course we will explore the importance of visual media, focusing on the ways that film, television, and advertising represent particular "ways of seeing." At stake is an understanding of the historical and cultural bases (and biases) of vision and visuality; that is, an attempt to think about how and why modes of visual perception and reception are constructed, rather than natural or given. Students will learn to use the approaches of film and media criticism, semiotics, and visual anthropology in order to examine the priority of the visual in modern consciousness, perhaps especially in the West. The emphasis of class discussions will be on reading, understanding, and developing a critical engagement with questions of cinema and media culture; the written assignments will be geared towards learning the vocabulary of film/media culture and reading visual texts.

CSCL 1301W Reading Culture: Theory and Practice
(Sec 001-003); meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This is a basic introductory course turning on one central question: How do things 'mean'? Specifically, how do cultural texts mean in relation to each other and to human life in different societies and across history? 'Cultural texts' are things, made by human beings, 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 boundries and power relationships; and 2) the ways in which art and culture function as sites where creative and alternative visions of 'the good life' may arise. Classes are small so that careful close reading, practice in critical writing, and discussion happen easily. It's a writing intensive course that addresses both how we write about culture and why we do it in the ways we do: the reading and writing practices of Cultural Studies, and how they differ from those of other disciplines. An introductory course in every sense, it's a good beginning for thinking about the problems of culture, and a good place to develop reading and writing techniques for many courses and majors.
Class time: 25% lecture, 75% discussion
Work load: 75 pages of reading per week, 15 pages of writing per semester, 2 exams, 3 papers
Grade: 20% final exam, 60% written reports/papers, 20% quizzes
Exam format: Open book, short essay/response

CSCL 1401W Reading Literature: Theory and Practice
(Sec 001-006); meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
What's Literature? How has it differed over time and across cultures? Why is "Great Expectations" in every high-school curriculum, but nothing from Africa or China? Do our definitions of literature play a role in the ways we see ourselves—and Africa and China? How do our histories—personal and cultural—determine our reading? CSCL 1401W examines the reading process across time and across culture, working out a comparative method for reading that shows how local and flexible 'literature' is. We'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. Those curious about Comparative Literature will develop a clear sense of the field. Classes are small so that careful close reading, practice in critical writing and discussion happen easily. It's a writing intensive course that addresses both how we write about literature and why we do it in the ways we do. We examine the reading and writing practices of Comparative Literature, and how they differ from those of other disciplines. An introductory course in every sense, it's a good beginning for thinking about the problems of literature, and a good place to develop reading and writing techniques for many courses and majors.
Class time: 25% lecture, 75% discussion
Work load: 75 pages of reading per week, 15 pages of writing per semester, 2 exams, 3 papers
Grade: 20% final exam, 60% written reports/papers, 20% quizzes
Exam format: Open book, short essay/response.

CSCL 1501W Reading History: Theory and Practice
(Sec 001-003); meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
Who controls history? Who decides what is included (or left out), what is important (or irrelevant)? Why has history become such a hot political topic (textbooks in schools, for example)? What is the relationship of the past to contemporary culture? This course examines such questions assuming that a) history has explanatory power: it can tell us why things got to be the way they are; and b) the meaning of cultural texts (literature, art, film, and so on) exists not as something waiting to be uncovered, but as a changing set of relations-including power relations-between texts, their authors, and readers. The course is structured around individual texts or objects and the problems associated with representing them-the Mall of America, a Nazi rally, a 17th century Dutch painting; 'history on television', the representation of the female body, and the like. Classes are small so that careful close reading, practice in critical writing and discussion happen easily. It's a writing intensive course that addresses both how we write about history and why we do it in the ways we do. We examine the reading and writing practices of Cultural Studies, and how they differ from those of other disciplines. An introductory course in every sense, it's a good beginning for thinking about the problems of history, and a good place to develop reading and writing techniques for many courses and majors.
Class time: 25% lecture, 75% discussion
Work load: 75 pages of reading per week, 15 pages of writing per semester, 2 exams, 3 papers
Grade: 20% final exam, 60% written reports/papers, 20% quizzes
Exam format: Open book, short essay/response

CSCL 1907W Freshman Seminar: How Things Mean: Decoding Culture & Society
(Sec 001); A-F only; prereq—Fr or no more than 36 cr; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Brown Jr, Robert L **!!Morse Alumni Award!!**
On the side of the Chevy pickup truck that passed me, Calvin (from Calvin and Hobbes), urinates on the Ford logo. How come the truck we drive matters so much? Or the clothes we wear? Or our tastes in general? More seriously: what about our political, national, religious and philosophical affiliations? "How Things Mean" assumes that the world around us (our culture) means, and that its meanings are central in creating us—individu-

ally and collectively. And it assumes culture can be "read". We'll see how the sights, sounds, built environments and various texts and practices that surround us build our identities, our ways of making knowledge, our views of the world, and our political systems. And we will examine how these operations are central in creating and maintaining cultural differences. We'll read cultural theory, a novel, some poetry, much popular music, and some film and video. We'll visit public sites in the Twin Cities to see how we are "representing" ourselves to ourselves. We'll gather materials from both high culture and everyday life to analyze and interpret. It's an active-learning, writing-intensive course that sets out to make sense of our lived experience and the history that surrounds it.

Class time: 100% discussion

Work load: 60 pages of reading per week, 25 pages of writing per semester, 5 papers

Grade: 50% written reports/papers, 20% in-class presentations, 30% class participation

CSCL 1921 Introduction to Film Study

(Sec 001, 003, 005); prereq—=ArtH 1921W; meets CLE req of Writing Intensive; meets CLE req of Other Humanities Core; 4 cr

Instructor: STAFF

This course is about movies—what they are, how they work, and ways we can watch, read, and enjoy them with a critical eye. Our basic questions are: How do films make meaning? How do they construct a world for us, while (often) giving the impression that that constructed world is natural and inevitable? How do films position us as viewers and shape us as subjects? What is the relation between the film text and the political economy of the industry? We'll look at a wide variety of films from different times and places and consider some of the rich diversity of writing known collectively as Film Theory. This is a basic introductory course designed for those who love going to the movies, but want to understand them better.

CSCL 3115 Cinema and Ideology

(Sec 001, 003); meets CLE req of Other Humanities Core; 4 cr

Instructor: STAFF

While we've grown accustomed to partisan debates and political posturing about the cultural effects of Hollywood, we seldom consider the complex ways that film actually performs its persuasive and ideological work, that is, how film may implicitly embody and urge certain points of view, certain "orders of things" over others. The course explores the ideological dimensions of film, focusing on such questions as: How do formal qualities of film produce or reproduce world view? Through what techniques does film make its point of view appear to be ahistorical and natural? How are audiences positioned to "freely" consent to a film's view of the world? We'll consider a broad range of mostly classic Hollywood cinema and explore issues such as: film and propaganda, ideological uses of the film apparatus, political economy of the film industry, voyeurism, paranoia, feminist and post-colonial critiques of cinema, documentary, counter-cinema, and the avant-garde.

CSCL 3172 Music as Discourse

(Sec 001); meets CLE req of Other Humanities Core; 3 cr

Instructor: Leppert, Richard **!!Morse Alumni Award!!**

"Music is very il for yung heds, for a certeine kind of nice, smoothe sweetnes in alluring the auditorie to effiminancie...Sweet musick at the first delighteth the eares, but afterward corrupteth and depraveth the minde...But being used in publique assemblies...as directories to filthie dauncing...it estraungeth the mind, stireth up filthie lust, womanisheth the minde, ravisheth the hart, enflameth 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 uses, and psychic and social meanings have been the subject of human reflection (and anxiety) from Plato to Tipper Gore. This course will examine the ways in which music can be considered a "discursive practice", i.e., how the shaping of sonorities—music making—participates in the formation of human consciousness, social norms and identities, and attitudes toward the body; how and for what purposes music is used; what (who) distinguishes "music" from "noise"; and why some musics are policed and censored. Examples from symphony, opera, blues, jazz, rock; Bethoven, Verdi, Bartok, Cage, Glass, Laurie Anderson, Robert Johnson, Jackie Wilson, Jimi Hendrix, Phil Spector, John Zorn, etc.

Class time: 80% lecture, 10% discussion, 10% assigned music listening

Work load: 40-50 pages of reading per week, 10-12 pages of writing per semester, 2 exams, 2 papers

Grade: 20% mid-semester exam(s), 30% final exam, 50% written reports/papers

Exam format: Essay

CSCL 3175 Comedy: Text and Theory

(Sec 001); meets CLE req of Other Humanities Core; 3 cr

Instructor: Thomas, Gary C.

In this course you'll study two kinds of things, comic texts and theories about comedy. Texts include anything from bumper stickers ("Eat right, exercise, die anyway") to classic drama (a play or two by Aristophanes, Shakespeare, Moliere, Shaw, Beckett, e.g.), obscene and hostile jokes and satire to Hollywood movies (like "Brazil", "Being John Malkovich", "Monty Python and the Holy Grail", "Rushmore", "American Beauty"). For theory we'll consider a fairly canonical set of literary, philosophical, psychological, and socio-political musings—Deep Thoughts—on the nature, mechanics, and socio-political uses of comedy (among others, Bakhtin, Bergson, Freud, Frye, Baudelaire, and a feminist and postmodern or two). The instructor feels constrained to warn those whose delicate sensibilities might be offended by the likes of 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).

Class time: 75% lecture, 25% discussion

Work load: 2 exams, 2 papers

Grade: 30% mid-semester exam(s), 40% final exam, 20% written reports/papers, 10% class participation

Exam format: Multiple choice, essay, textual analysis

CSCL 3176 Oppositional Cinemas

(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 4 cr

Instructor: Kotz, Elizabeth W

This course examines movies that offer alternatives to the narrative and spectacular machinery of mainstream Hollywood. We will look at examples from "third world" cinemas of the 1960s and 1970s, recent British and American "black cinemas" and contemporary American "queer cinemas" to assess different efforts to rethink and redirect the aesthetic and political power of film. Can film intervene as an oppositional political force in culture? Can it function as progressive public form? How effectively does it visualize and disseminate other cultural agendas, identities and ideals? We will compare films from non-mainstream directors working inside the Hollywood system with a range of "independent" and oppositional efforts. Films will likely include DO THE RIGHT THING, BOYS DON'T CRY, HEDWIG & THE ANGRY INCH, BOYS IN THE HOOD, SHAFT, THE HOUR OF THE FURNACES, REASSEMBLAGE, LA NOIRE DE ..., and more. Texts by filmmmakers and critics including Kobena Mercer, Sadie Benning, Isaac Julien, Manthia Diawara, Trinh T. Minh-ha, Todd Haynes, Richard Dyer, Ousmane Sembene, John Waters and others.

Class time: 40% lecture, 30% cctv, 30% discussion

Work load: 30-40 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 2 papers

Grade: 10% mid-semester exam(s), 30% final exam, 40% written reports/papers, 10% in-class presentations, 10% class participation

Exam format: Take-home written final exam

CSCL 3177 On Television

(Sec 001); Credit will not be granted if credit has been received for: SCMC 3177; 4 cr

Instructor: Wasson, Haidee S

Television is a complex cultural form, marking a point at which subjectivity, technology, power, and aesthetics are persistently reconfigured. Its influence is pervasive. TV has fundamentally altered the relations between consumerism, media, and politics; reorganized domestic and public space; blurred lines dividing "high" and "low" culture; nurtured ideas of global villages and simultaneity; and supplied resonant metaphors for understanding the experience of contemporary life: boob tube, soundbite, talking head, prime time and 'channel surfing'. This course assumes that television has neither a unitary significance nor a simple effect. We will critically assess the ways in which television challenges us to rethink fundamental concepts: leisure, time, space, text, image, sound, subjectivity and aesthetics. We will explore key debates in the history, theory and criticism of television, concentrating on critical and creative "readings" of televisionÆs past and present forms. This will also include consideration of how television borrows from and influences film, music, and digital media. Specific topics might include: music television, reality tv, television news, video art, guerilla television, Blockbuster video, and tv webpages.

CSCL 3331 Science and the Humanities
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: STAFF
The implications for ethics and social design of the competing claims made by the sciences and the humanities. A study of the kinds of creativity and the ways of knowing in the two fields.

CSCL 3361 Visions of Nature: The Natural World and Political Thought
(Sec 001); Same as: EEB 3361; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme; 4 cr
Instructor: Regal, Philip J
Unscientific theories about nature exist that can complicate an understanding of modern scientific ecology, global ecological threats and civic matters. The theories include ideas about the balance of nature, and human nature. Scientifically misleading ideas in popular thought and philosophy have emerged from a rich history that has been part of efforts to legitimate the social, economic, an religious transformations that have led to the formation of the modern world system over the centuries, from ancient times through the present. This course will discuss popular and philosophical ideas about nature and contrast them to modern scientific knowledge. It will analyze the historical roles that the popular and philosophical visions of nature have played in campaigns to morally legitimate each stage of social, psychological and economic transformations in the development of the modern world system. The implications of this history for current environmental concerns and for the relationships of the citizen to society will be discussed. Grades will be based on a midterm and final examination, and on short assignments such as a research paper or film reviews to be negotiated with the class as a whole. Class discussion is encouraged.

CSCL 3412W Psychoanalysis and Literature Part I: The Essential Freud
(Sec 001); meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
What critical tools does psycholanalysis make available to us as students of culture? What are the promises and limitations of psychoanalytical method? To begin to answer such questions, this course engages in close readings of selected writings of Sigmund Freud, including, e.g., "On Narcissism", "The Uncanny", "The Future of an Illusion", "The Ego and the Id", and "Civilization and its Discontents". In addition to reconstructing Freud's often deceptively uncomplicated, yet demanding thinking, the course will focus on the relationship between his theory of the subject and his (variously implicit and explicit) theory of culture, and on how both theories converge in questions concerning the construction of individual and collective identity, i.e., "Who are we?"

CSCL 3456W Sexuality and Culture
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
What is sexuality? When was it invented and how have its cultural constructions and meanings varied over time and place? In the West, for example, pre-modern understandings of human sexuality were radically reconfigured in the 19th century, being organized around the concept of 'homosexual' and 'heterosexual'—symbiotic and mutually exclusive definitions we continue to struggle with to this day. The course examines ways that such struggles—homo/hetero, natural/unnatural, normal/deviant, biofunction/pleasure—are articulated in thought and art, among other things; in order to imagine the possibility of sexuality beyond binary oppositions. Links between sexuality and identity, criminality, and violence are also explored. Readings from critical work of Foucault, Wittig, Cixous, Butler, Sedgwick, etc.; fiction by writers like Melville, Gide, Genet, Duras, Winterson, and Hollinghurst; films by directors such as Birkin, Riggs, Resnais, Haynes and van Sant.

CSCL 3458W The Body and the Politics of Representation
(Sec 001); meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
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, surveiled, 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.

CSCL 3979 Issues in Cultural Pluralism
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: Sarles, Harvey B **!!Arthur Motley Exemplary Teaching Award, CLA!!**
A debate between Aristotle and Thomas Jefferson frames this course: whether some of us are, by our very nature, born to be slaves, as Aristotle claimed; or whether we are all born equal as Jefferson says in the Declaration of Independence. The course asks, then, about these claims about nature and about our nature, what is a person in law and in practice, and why we find ourselves in a plural world bouncing between Aristotle and Jefferson over issues of race and culture. Why there have been periodic flares of racism in America—about once per generation—is analyzed in an essay by Lipset: the recent haves vs. those who want to make it next in a fluid society. How have we justified war against natives, using Aristotle's arguments (yet again), as alternatives to altruism and brotherly love? Who am I, and who are you, and we and they—asks a lovely essay called "Passing", in which we begin to understand that we all move through the world more or less clearly seen and defined to be who we are; some of us very visible, others not; contexts, social reality. What happens when social inequality becomes law, as in the Nazi era, is elucidated as actual history in a tape to which we listen.
Class time: 100% lecture/dialogue
Work load: 40 pages of reading per week, 2 papers/projects
Grade: 100% written reports/papers

CSCL 3979 Issues in Cultural Pluralism
(Sec 002); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: STAFF
What does it mean to say we live in a "plural" or "multicultural" society? What material conditions, tensions, and struggles are masked beneath these convenient, nice-sounding, and overused labels? In this course we will consider ways writers, artists, and cultural theorists have attempted to sort out and critique the contradictions between a plural/multicultural ideal and the obstacles to its realization. That is, we will both critique the term and try to point out its possibilities. Course material ranges widely, from Aristotle (some are born to be slaves) and Thomas Jefferson (we are all born equal) to the recent work of writers and performance artists by feminists, queers, and people of color.

CSCL 5256 Suburbia
(Sec 001); 3 cr
Instructors: Archer, W John **!!Arthur Motley Exemplary Teaching Award, CLA!!**; Solomonson, Katherine Mary
Over half of all Americans live and work in suburbia. It is a physical and cultural terrain that embodies many of America's most cherished ideals, yet consistently it is blamed for much of what is wrong with the country. "Suburbia" remains a term that defies simple definition; historically, geographically, politically, demographically, or architecturally. This course will examine the historical circumstances that gave rise to modern suburbia as we know it, beginning in 18th century England and continuing to the present day, with the greatest emphasis on the United States. Among the central issues for examination are: changes in politics, economy, domesticity, family, technology, transportation, design and planning. Equally important is analysis of ways in which suburbia has served to alter the balance of high, low, and popular culture, of politics, of economy, of work, of family, and of domesticity. The course examines specific sites and designs, as well as representations of suburbia in such media as film, television, advertising, popular literature, and music. Lectures and readings are organized around such topics as: suburbia in music and film; house, yard, and neighborhood; family and domesticity; automobile culture; edge cities, new urbanism and sprawl. The course is offered simultaneously through Cultural Studies and Comparative Literature (CSCL) and Architecture (Arch). It will be co-taught by John Archer and Kate Solomonson.
Class time: 100% lecture
Work load: 75 pages of reading per week, 15 pages of writing per semester, 3 exams, 1 papers, possibly journaling
Grade: 40% mid-semester exam(s), 25% final exam, 25% written reports/papers, 10% , Journaling
Exam format: Essay and short answer

CSCL 5302 Aesthetics and the Valuation of Art
(Sec 001); Same as: CSDS 5302; 3 cr
Instructor: Schulte-Sasse, Jochen
Course readings will include major essays on the relationship of aethetic theory, ideology, and value/evaluation of art from Friedrich Nietzsche and Walter Benjamin to Jan Mukarovsky, Louis Althusser, Paul de Man, Barbara Hernnstein Smith, Hayden White, Stephen Heath, Kaja Silverman and Teresa De Lauretis. Issues the course will focus on involve the role of aethetics since the eighteenth century, the relationship between ideology and value/evaluation, the role of identification and the desire for identity in the evaluation of art, and the politics of evaluation.
Class time: 30% lecture, 70% discussion
Work load: 50-70 pages of reading per week, 4 papers
Grade: 80% written reports/papers, 20% class participation
Exam format: essay

CSCL 5910 Topics in Cultural Studies and Comparative Literature: Diaspora Poetics
(Sec 001); max crs 24; 8 repeats allowed; 3 cr
Instructor: Morris, Leslie C
This course will explore what a poetics of Diaspora might mean in a range of literary, film, and visual texts from diverse geographical locations. We will explore how notions of the border, migration, nationhood, immigration, displacement, hybridity, dispersion, transnationalism, deterritorialization, the loss of origin and "reality", and nostalgia for the homeland constitute what we will be calling Diaspora poetics. The course will also examine the shifts within the term "Diaspora" in a variety of cultural and geographical contexts, with special emphasis on the complex reconfigured social and cultural spaces of Europe today. Discussion will explore the relationship between interior poetic spaces and geographical spaces of dispersion; the tension between poetic utterance and assertion and negation of place; the relationship between place and exile; and the critical interrogation of the meaning of "origin". Texts by, among others, Edmond JabFs, AimT CTsaire, Paul Celan, Octavio Paz, Fernando Pessoa, Italo Calvino, Jean Baudrillard, Theresa Cha, Adunis, Mahmoud Darwish, Yehuda Amichai, Edward Said, James Clifford, Daniel Boyarin and Jonathan Boyarin. This course is intended for graduate students and advanced undergraduates.
Class time: 20% lecture, 80% discussion
Work load: 150-200 pages of reading per week, 20-25 pages of writing per semester, 1 papers
Grade: 85% written reports/papers, 15% class participation

CSCL 5993 Directed Study
(Sec 001, 002); max crs 9; 9 repeats allowed; prereq—instr consent, dept consent, college consent; 1-3 cr
Instructor: STAFF
Directed study—arranged

Curriculum and Instruction
145 Peik Hall; 612-625-6372

CI 1001 Introduction to the Elementary School
(Sec 001, 002); A-F only; 3 cr
Instructor: Maday, Alice Mae
This course will be organized around four modules. Each module focuses on an important facet of contemporary urban elementary school teaching: the teacher's role, the role of the principal and other non-teaching staff, the curriculum and the students. Central to each module is a visit to a school to observe or interview teachers, the principal and other non-teaching personnel, or the students.
Class time: 1% lecture, 39% discussion, 20% laboratory, 40% small group projects
Work load: 40 pages of reading per week, 25 pages of writing per semester, 6 papers, daily small group presentations and projects
Grade: 25% written reports/papers, 25% in-class presentations, 25% class participation, 25% , site visits and interviews
Exam format: presentation

CI 5096 Art Education: Practicum
(Sec 001, 002); max crs 6; A-F only; 1-6 cr
Instructor: STAFF
Issues of art instruction, including teaching methods and evaluation, philosophical frameworks of pedagogy and institutional issues concerning art programs in primary and secondary schools. Practicum requiring students to work in a public school setting.

CI 5111 Introduction to Elementary School Teaching
(Sec 001); A-F only; prereq—Foundations of ed major or elem ed initial lic; 3 cr
Instructor: Buggey, L JoAnne
Curriculum organization, instruction, management, assessment, professional decision making

CI 5177 Practical Research
(Sec 001); A-F only; prereq—CI MEd student, or CI or EdPA Teacher Leadership MEd student; 3 cr
Instructor: STAFF
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 5183 Applying Instructional Methods in the Elementary Classroom
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Foundations of ed major or elem ed initial licensure only; 1 cr
Instructor: Buggey, L JoAnne
Supervised experience in elementary classrooms.

CI 5183 Applying Instructional Methods in the Elementary Classroom
(Sec 002); max crs 8; 4 repeats allowed; S-N only; prereq—Foundations of ed major or elem ed initial licensure only; 2 cr
Instructor: Buggey, L JoAnne
Supervised experience in elementary classrooms.

CI 5186 School-Related Projects
(Sec 001); max crs 4; A-F only; prereq—MEd student; 1-4 cr
Instructor: STAFF
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
(Sec 001); max crs 3; S-N only; prereq—MEd student in elem or early childhood ed; 2-3 cr
Instructor: STAFF
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
(Sec 001); max crs 12; 12 repeats allowed; prereq—Grad student only; 1-6 cr
Instructor: STAFF
Directs students to individual studies that focus on producing and evaluating curriculum marterials; literature review of issues and problems; and assessing curriculum processes.

CI 5251 Social and Philosophical Foundations of Early Childhood Education
(Sec 001); prereq—[MEd student in ECE or ECSE] or instr consent; 3 cr
Instructor: Bacigalupa, Chiara Domenica
This course is required for those students enrolled in graduate programs in either early childhood education or early childhood special education. The course surveys imagery, history, philosophy, and psychology of early care and education. Students will learn how to analyze and interpret current trends related to diversity, special needs, legislation, public policy, and educationally appropriate practice. The content of the course includes an overview of the historical, social, philosophical, and psychological foundations of early care and education; models of early care and education, including their impact on children, families, and communities; legislation and public policy in early care and education; diversity; reflective practice; advocacy for children and families. teaching methods include lecture, discussion, cooperative learning groups, and student presentations.
Class time: 40% lecture, 40% discussion, 20% Student presentations
Work load: 50 pages of reading per week, 15 pages of writing per semester, 3 papers, Student presentations
Grade: 60% written reports/papers, 30% in-class presentations, 10% class participation

CI 5253 Facilitating Cognitive and Creative Learning in Early Childhood Education
(Sec 001); A-F only; prereq—MEd student in early childhood ed or early childhood prereqecial ed, or instr consent; 3 cr
Instructor: Murphy, Barbara Ann
Overview of cognitive, creative and language characteristics of children ages 0-8 years and of how teachers can plan curriculum to facilitate children's development in these areas.

CI 5281 Student Teaching in Early Childhood Education
(Sec 001); max crs 6; S-N only; prereq—MEd student in early childhood ed or early childhood prereqecial ed; 3-6 cr
Instructor: Galle, Lynn P
Application of theory/research relating to teaching preschool children. For individuals obtaining ECE licensure.
Class time: 80% discussion, 20% laboratory

CI 5337 Planning for K-12 Technology Design and Integration
(Sec 001); A-F only; prereq—Able to use various instructional computing tools; 3 cr
Instructor: Hughes, Joan E
This course is designed for teachers, administrators, and those interested in education to examine the process of designing and planning for technology integration in K-12 contexts, focusing primarily on the school level (though discussion of district and state levels will occur). Eight interconnected dimensions of comprehensive technology planning will be studied, including : 1) Developing a vision and policy; 2) Analyzing technology needs; 3) Understanding/Identifying student-centered learning; 4) Involving parents and community members; 5) Supporting professional development; 6) Evaluating process and outcomes; 7) Establishing multi-year funding strategies; 8) Building a technology infrastructure. The course format includes reading, discussion, library and Internet reserach, presentations and a field-based project. A high level of participation is required for this class. Most course readings are available on-line.
Class time: 10% lecture, 50% discussion, 40% Field project
Work load: 40 pages of reading per week, 30 pages of writing per semester, 0 exams, 3 papers
Grade: 70% written reports/papers, 30% class participation

CI 5351 Technology Tools for Educators
(Sec 001, 002); A-F only; prereq—Basic knowledge of Macintosh operating system and a word processing program; 3 cr
Instructor: STAFF
Develop skills in using selected technology applications to support teaching and learning. Internet applications, presentation software, multimedia authoring tools, desktop publishing software, Web page creation. May also include a field-site project.

CI 5361 Teaching Via the Internet
(Sec 001); 3 cr
Instructor: STAFF
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 5411 Teaching Reading in the Elementary School
(Sec 001); A-F only; 3 cr
Instructor: Manning, John C
Examines the present status and practices in elementary classrooms. The course is specifically focused on improving classroom instruction with existing reading curriculum materials.
Class time: 75% lecture, 25% discussion
Work load: 1 exams, Class notebook
Grade: 30% final exam, 20% class participation, 50% , Class notebook
Exam format: Essay

CI 5424 Reading, Language Arts, and Literature: Primary
(Sec 001); A-F only; prereq—Elem ed initial licensure only; 3 cr
Instructor: Manning, John C
Student may contact the instructor or department for information.
Class time: 75% lecture, 25% discussion, class notebook
Work load: 50 pages of writing per semester, 1 exams
Grade: 30% final exam, 50% written reports/papers, 20% , Class Notebook

CI 5472 Teaching Film, Television, and Media Studies
(Sec 001); A-F only; 3 cr
Instructor: Beach, Richard W **!!Educ Distinguished Teaching Award!!**
Methods of teaching film, video, and media studies at the secondary and college level, methods for eliciting critical responses; analysis of film/video techniques; analysis of cultural representations and genre characteristics; connecting and comparing film/video and literature; studying documentary and television news; developing media studies units.
Class time: 20% lecture, 80% discussion
Work load: 30-40 pages of reading per week, 30 pages of writing per semester, 1 papers, 1journal
Grade: 50% written reports/papers, 50% , Journal

CI 5501 Teaching Science and Health in the Elementary School
(Sec 001); A-F only; prereq—Elem ed initial licensure only; 2 cr
Instructor: Johnson, Roger T
Methods and materials for teaching science and health at the elementary school level.

CI 5693 Directed Study in Second Languages and Cultures
(Sec 001); max crs 4; prereq—Instr consent; 1-4 cr
Instructor: STAFF
Individual or group work on curricular, instructional, or assessment problems.

CI 5696 Practicum: Teaching World Languages and Cultures in Elementary Schools
(Sec 001); prereq—5619, adviser approval; credits cannot be counted on a graduate degree program for endorsement candidates; 2 cr
Instructor: STAFF
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
(Sec 001); prereq—5619, adviser approval; 2 cr
Instructor: STAFF
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
(Sec 001); prereq—Adviser approval; credits cannot be counted on a graduate degree program; 2 cr
Instructor: STAFF
Student teaching in Second Languages and Cultures at the secondary level for teachers already licensed in another field. Requires students to work in a public school setting.

CI 5701 Teaching Social Studies in the Elementary School
(Sec 001); A-F only; prereq—5111 or equiv, elem ed initial licensure only; 2 cr
Instructor: Buggey, L JoAnne
Content and organization of elementary social studies programs; programs of understanding, improving the learning situation, and effective use of materials.

CI 5743 The Social Sciences and the Social Studies
(Sec 001); A-F only; prereq—Secondary social studies initial licensure student; 3 cr
Instructor: Hartoonian, H Michael
The focus on this course is on two different levels of knowledge within the social sciences and their application to social studies curriculum and learning. At one level attention is given to how we come to know about the world and ourselves, and how different discipline, linguistic, and cultural perspectives add to the complexities and richness of meaning. At the second level, fundamental questions about the activities of people are explored giving texture to the ways in which we use knowledge in our classrooms and daily lives. For example, how do people deal with time? How do people organize themselves in order to provide for basic economic wants? How do people create meaning in their lives? Finally, the application of these and other questions, knowledge frameworks, and themes manifested in these two levels of knowledge, are made to instructional programs in social studies.
Class time: 30% lecture, 40% discussion, 10% laboratory, 20% Student development of Social Science conceptual framework.
Work load: 90 pages of reading per week, 25 pages of writing per semester, 1 exams, 2 papers, 1 Class presentation
Grade: 10% final exam, 20% written reports/papers, 10% special projects, 10% quizzes, 10% in-class presentations, 30% class participation, 5% lab work, 5% problem solving
Exam format: Essay

CI 5761 Social Studies Education for the Inservice Middle/ Secondary Teacher
(Sec 001); 3 cr
Instructor: Hartoonian, H Michael
This course explores important issues within the context of social studies instruction and curriculum designs. The several content fields of the social sciences and humanities are addressed with special attention given to diverse orientations and perspectives on how disciplines and communities can understand and use knowledge. This foundation provides a dynamic context for addressing such questions as: Can a "common school" be a reality in the future of the United States? Can there be a united nation without a common understanding of knowledge? Can and should a common curriculum be constructed? What is the purpose of social studies?

What content should social studies present and represent? What context should be created to enhanced learning? How should we deal with the relationships between teaching and learning? How do we know that we make a difference?
Class time: 25% lecture, 50% discussion, 25% Defining curriculum & instructional issues in social studies and designing policies and products wit
Work load: 100 pages of reading per week, 25 pages of writing per semester, 2 papers
Grade: 30% written reports/papers, 30% in-class presentations, 30% class participation, 10% problem solving

CI 5821 Teaching Mathematics in the Elementary School
(Sec 001); A-F only; prereq—Elem ed initial licensure only; 2 cr
Instructor: STAFF
Principles of learning pertinent to the modern program of mathematics in elementary grades. Objectives, content, philosophy, instructional materials and methods of instruction and evaluation.

Dance

Barbara Barker Center for Dance: 612-624-5060

Dnce 1010 Modern Dance Technique 3
(Sec 001, 002); max crs 4; prereq—1002, dept consent; 2 cr
Instructor: Cheng, Maria **!!Nadine Jette Sween Prof of Dance!!**
Audition for technique placement or successful completion at levels 1 and 2 with instructor approval required for registration.
Class time: 100% Studio
Work load: 2 papers

Dnce 1301 Tap Technique 1
(Sec 001); 1 cr
Instructor: STAFF
This course is the first in a six-semester sequence of tap dance technique. The class will consist of beginning tap technique and rhythm structures, with an emphasis on footwork and musicality. This studio class will also explore the roots and traditions of tap dance and its importance to our American cultural heritage.
Class time: Studio

Dnce 1311 International Folk Dance 1
(Sec 001); 1 cr
Instructor: Maddux, Marge
This is an introductory course to international folk dance. Students will learn folk dances from many different cultures and countries around the world. They will learn basic folk locomotor movements such as schottische, polka, skip, waltz, and grapevine, as well as a variety of dance forms, such as circle dance, couple dance, and line dance. In addition, students will learn styling nuances from the various cultures that make the dances different from each other.
Class time: 100% Studio

Dnce 1321 Ballroom 1
(Sec 001-006); 1 cr
Instructor: Lickteig, Joy Davina
This course is an introduction to Ballroom Dance. The class is designed to give the student a basic understanding of vocabulary and lead/follow techniques for the most popular social dance styles, including the elementary steps of the foxtrot, waltz, tango, and swing. Students will utilize a variety of step and rhythm patterns.
Class time: 100% Studio
Grade: 100% , attendance, achievement, skill, attitude

Dnce 1401 Introduction to Dance
(Sec 001, 002); meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr
Instructors: Shapiro, Linda Jo; Geier, Heidi Elizabe
This course is an introduction to world dance. It will cover a range of dance forms, choreographers, and significant issues in dance through lecture, discussion, viewing of live and taped performance, and movement experiences. A significant aspect of the course will be how to look at dance, describe it, recognize various styles and aesthetics, and place dance in the context of important social, political, historical and aesthetic movements and ideas.
Class time: 30% lecture, 20% discussion, 10% laboratory, 40% video viewing
Work load: 16 pages of reading per week, 18-25 pages of writing per semester, 2 exams, 3-4 papers, 5 quizzes; attending 3 live performances
Grade: 15% mid-semester exam(s), 25% final exam, 30% written reports/papers, 10% quizzes, 20% , class participation, attendance, and lab work
Exam format: essay with some multiple choice

Dnce 1626 Music for Dance
(Sec 001); prereq—1002, 1102 or dept consent; 3 cr
Instructor: Gordon, Andrew A
This is a music fundamentals class directed at dancers. Purposes of the class include (1) Increasing active listening skills; (2) Learning vocabulary and concepts useful in dance/music interactions, and (3) Sharpening rhythmic skills. Basic musical concepts are taught with reference to dance, while always striving to recognize how these concepts actually sound in practice. Though the class looks at a broad range of elements (e.g.; melody, texture, tone color, etc.), time and rhythm get special attention—from basic rhythm notation through meter and phrasing, to aspects of structure and form.
Class time: 50% lecture, 25% discussion, 25% laboratory
Work load: 2-3 pages of reading per week, 6-10 pages of writing per semester, 2 exams, 2 papers, percussion score, active listening
Grade: 15% mid-semester exam(s), 20% final exam, 25% written reports/papers, 20% class participation, 20% , percussion score
Exam format: Simple question, essay and ear training.

Dnce 3010 Modern Dance Technique 5
(Sec 001, 002); max crs 4; prereq—dept consent; audit registration not permitted; 2 cr
Instructor: STAFF
Audition for technique placement or successful completion of levels 3 and 4, with instructor approval required for registration.
Class time: Studio
Work load: 1 papers

Dnce 3110 Ballet Technique 5
(Sec 001, 002); max crs 4; prereq—dept consent; audit registration not permitted; 2 cr
Instructor: Pierce, Toni L
Audition for technique placement or successful completion at levels 3 and 4 with instructor approval required for registration.
Class time: 100% Studio
Work load: 1 papers

Dnce 3401 Dance History 1
(Sec 001); meets CLE req of Other Humanities Core; 3 cr
Instructor: Chatterjea, Ananya
Dance history I is the first part of a two semester course tracing the development of concert dance in the west. The first part of the course will examine historiographical processes and concepts such as 'primitive' and 'civilization' that problematize early dance history. Also, in this semester, we take a look at the possible origins of dance.
Work load: 50 pages of reading per week, 1 exams, 3 papers
Grade: 25% final exam, 20% written reports/papers, 10% in-class presentations, 25% class participation, 20% , Depth of research

Dnce 3500 Topics in Dance
(Sec 050); max crs 10; 10 repeats allowed; 1 cr
Instructor: Chvala, Joseph Michael
"Tap 6": Audition for technique placement or successful completion at level 5 with instructor approval required for registration.
Class time: 100% Studio

Dnce 3700 Performance
(Sec 001); max crs 4; prereq—Concurrent enrollment in a technique course, audition, dept consent; 1 cr
Instructor: Smith, Joan Anne
Registration by audition only.

Dnce 4443 Philosophy and Aesthetics
(Sec 001); prereq—1401; 3 cr
Instructor: STAFF
This philosophy and aesthetics course begins with examining notions of performance and performativity through a survey of various kinds of "stagings". These lead to considerations of concepts of representation, identity, and various philosophical takes on these ideas. The class will focus on the various research methodologies common in dance studies and analyze two assigned texts.
Work load: 75 pages of reading per week, 3 papers, One presentation
Grade: 30% written reports/papers, 35% in-class presentations, 35% class participation
Exam format: Essay

Dnce 4901 Senior Seminar
(Sec 001); S-N only; prereq—credit will not be granted if credit received for: Th 4901; Sr, [Dnce or Th major]; offered fall semester only; 2 cr
Instructors: Gwinup, Martin Bruce; Wolska, Aleksandra; Maddux, Marge
Dance and Theatre senior seminar is the course which students register for their Senior Project. The student will submit a proposal for their project which will then be evaluated by the course panel and be approved, disapproved, or the student will be asked for a resubmittal with clarification. Once approved the student will be assigned a faculty advisor who will advise them on their project as well as evaluate the final product. These projects can be individual or group projects. The projects should be both a culmination of the students career here, as well as a look forward into their particular career goals and aspirations. These projects are not funded and there are minimal resources available for performances or presentations. Since both Theatre and Dance are colloborative in nature, we urge but do not demand, that projects be group projects. Although the course is only offered in the fall, once registered, the student has the full academic year to complete their project. The course is offered S/N only.
Class time: 5% lecture, 95% Developong and carrying out the project
Work load: Reading and writing depends upon the project
Grade: 100% , Senior project

Dnce 5010 Modern Dance Technique 7
(Sec 001); max crs 4; prereq—dept consent; audit registration not permitted; 2 cr
Instructor: Pierce, Toni L
Audition for technique placement or successful completion at levels 5 and 6 with instructor approval required for registration.
Class time: 100% Studio
Work load: 1 papers

Dnce 5110 Ballet Technique 7
(Sec 001); max crs 4; prereq—dept consent; audit registration not permitted; 2 cr
Instructor: Mathis, Bonnie Fay
Audition for technique placement or successful completion at levels 5 and 6 with instructor approval required for registration.
Class time: 100% Studio
Work load: 1 papers

Dnce 5700 Performance
(Sec 001); max crs 4; 4 repeats allowed; prereq—concurrent enrollment in technique course, dept consent; 1 cr
Instructor: Smith, Joan Anne
Registration by audition only.
Class time: 100% Rehersal/Performance

Danish
205 Folwell Hall; 612-625-2080

Dan 1001 Beginning Danish
(Sec 001); Credit will not be granted if credit has been received for: DAN 4001; 5 cr
Instructor: Andersen, Claus Elholm
The first year of language instruction is designed to develop a basic communicative proficiency in Danish. From day one, you will work on understanding spoken and written Danish and speak and write Danish yourself, learning to handle linguistically concrete, simple everyday transactions. Most of the classtime is taken up by interactive communicative activities in pairs and small groups. Small class sizes allow you to improve your listening, speaking, writing and reading skills in everyday class sessions. Learning about life and culture in Denmark is an integral part of the course. We use video material and work in the multi-media lab. After Dan 1002, and certainly after Dan 1004, you will be well prepared to study abroad. Textbook will be "I familien". See description for Dan 4001 for qualified students to register for this course for 2 credits instead of 4 credits. Credit will not be granted if credit has been received for Dan 4001.
Class time: 10% lecture, 80% discussion, 10% laboratory
Work load: 5 pages of reading per week, 10 pages of writing per semester, 1 exams, One quiz every two weeks
Grade: 15% final exam, 30% quizzes, 45% class participation, 10%
Exam format: Structured exercises in all four modalities and grammar, vocabulary and culture

Dan 1003 Intermediate Danish
(Sec 001); Credit will not be granted if credit has been received for: DAN 4003; prereq—1002; 5 cr
Instructor: Andersen, Claus Elholm
In the second year, you will further develop your proficiency in Danish using the same communicative approach as in Beginning Danish. At the intermediate level you will be reading, writing and listening to more advanced, sometimes authentic, Danish material and you will expand and refine your vocabulary and your knowledge of grammar. Learning about life and culture in Denmark is an integral part of the course. We use video material on contemporary Denmark, and work in the multi-media lab. Topics also include social history, immigration, and World War II. After Dan 1004, you will be well-prepared to study abroad. The Dan 1003-1004 course sequence will prepare you for the Graduation Proficiency Test (GPT) that you will take toward the end of Dan 1004. See the description for Dan 4004 for an option for qualified students to register for this course for 2 credits, instead of 4 credits. Credit will not be granted if credit has been received for Dan 4004.
Class time: 10% lecture, 80% discussion, 10% laboratory
Work load: 6 pages of reading per week, 15 pages of writing per semester, 1 exams, One quiz every two weeks.
Grade: 15% final exam, 30% quizzes, 45% class participation, 10%
Exam format: Structured exercises in all four modalities and grammar, vocabulary and culture

Dan 3011 Advanced Danish
(Sec 001); prereq—Passing score on GPT; 4 cr
Instructor: Andersen, Claus Elholm
This course uses a variety of contemporary, authentic texts, tapes and films to further develop your speaking, listening, reading and writing skills. In the process, it provides insights into Danish culture and society. Primary texts will be selected with due deference to your interests. In weekly readings, class discussions, oral presentations and short written assignments, you will broaden your active and passive vocabulary and sharpen your writing skills. We use a process writing approach and work in the multi-media lab. Towards the end of the course, you will be able to write a 1000 word final essay, which is the final exam.
Class time: 10% lecture, 70% discussion, 20% Oral presentations
Work load: 15 pages of reading per week, 15 pages of writing per semester, One 1000 word final essay
Grade: 20% final exam, 40% in-class presentations, 40%

Dan 4001 Beginning Danish
(Sec 001); Credit will not be granted if credit has been received for: DAN 1001, DAN 1001; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: Andersen, Claus Elholm
See the course description for Dan 1001. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language, or are a graduate student, or are not seeking a CLA degree, you may register for Dan 1001 under the number Dan 4001 for 2 credits. Contact the department office at (612) 625-2080 for a "magic" number. Credit will not be granted if credit has been received for Dan 1001.
Class time: 10% lecture, 80% discussion, 10% laboratory
Work load: 5 pages of reading per week, 10 pages of writing per semester, 1 exams, One quiz every two weeks
Grade: 15% final exam, 30% quizzes, 45% class participation, 10%
Exam format: Structured exercises in all four modalities and grammar, vocabulary and culture.

Dan 4003 Intermediate Danish
(Sec 001); Credit will not be granted if credit has been received for: DAN 1003, DAN 1003; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: Andersen, Claus Elholm
See the description for Dan 1003. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language, or are a graduate student, or are not seeking a CLA degree, you may register for Dan 1003 under the number, Dan 4003 for 2 credits. Contact the deparment office at (612) 625-2080, for a "magic" number. Credit will not be granted if credit has been received for Dan 1003.
Class time: 10% lecture, 80% discussion, 10% laboratory
Work load: 6 pages of reading per week, 15 pages of writing per semester, 1 exams, One quiz every two weeks.
Grade: 15% final exam, 30% quizzes, 45% class participation, 10%
Exam format: Structured exercises in all four modalities and grammar, vocabulary and culture.

Dental Hygiene

9-406 Moos Health Sciences Tower; 612-625-9121

DH 2111 Dental Anatomy
(Sec 001); A-F only; 2 cr
Instructor: Anderson, Jeanne Marie
All deciduous and permanent teeth, including tooth form, function, and relationship to oral health; calcification, eruption, and exfoliation patterns; ideal static occlusion, dental terminology, and tooth annotation systems. Lab includes identification and annotation of teeth and restoration, in wax, of portions of a typodont tooth. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, large and small group discussion, and laboratory assignments in drawing, carving, and annotating teeth. Textbooks: Woelfel and Scheid: Dental Anatomy, Its Relevence to Dentistry. Williams and Wilkens Publisher; Dental Anatomy Study Guide. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: 40% lecture, 10% discussion, 50% laboratory
Work load: 10 exams
Exam format: multiple choice

DH 2132 Head and Neck Anatomy
(Sec 001); A-F only; 1 cr
Instructor: Blue, Christine Mary
Anatomical structures of the head and neck as they relate to the practice of dental hygiene. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, CD-ROM, discussion. Textbooks: M. Fehrengach and S. Herring: Illistrated Anatomy of the Head and Neck. W.B. Saunders. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: CD-ROM
Exam format: Multiple choice

DH 3111 Biomaterials for the Dental Hygienist
(Sec 001); A-F only; 3 cr
Instructor: Dittmar, Susan Kyle
Physical, chemical, and mechanical properties; indications and contraindictions for use; manipulation techniques; biological consideration of materials used in dentistry; dental specialists. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, clinic, laboratory and observation assignments. Textbooks: Ferracane: Materials in Dentistry, Principles & Applications, Lippincott. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: 40% lecture, 30% laboratory, 30% Clinics
Exam format: Multiple choice

DH 3123 The Dental Hygiene Care Process Clinical Application III
(Sec 001); max crs 4; A-F only; 1-4 cr
Instructor: Stoltenberg, Jill Louise
Dental hygiene treatment planning, alternative instruments and advanced skills related to the implementation of dental hygiene care. Clinical experience in dental hygiene patient care and dental dietary counseling. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, dicussion, and clinical practice. Textbook: Pattison & Pattison: Periodontal Instrumentation: A Clinical Manual. Reston. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: 10% lecture, 10% discussion, 80% Clinic
Exam format: Multiple choice, essay

DH 3126 Oral and Maxillofacial Radiology Clinic I
(Sec 001); A-F only; 0 cr
Instructors: Kuba, Ramesh K; Rhodus, Nelson L; Smisek, Ronald Michael
DH 3126 Oral and Maxillofacial Radiology Clinic I. Exposing radiographs on patients, radiographic interpretation, panoramic and extraoral technique, and quality assurance proceedures. Includes content necessary for the practice of Dental Hygiene. Teaching methods include clinical experience. Course only open to students enrolled in the program in Dental Hygiene.
Class time: 100% Clinic
Exam format: Multiple Choice

DH 3131 Periodontology I Lecture
(Sec 001); Credit will not be granted if credit has been received for: DENT 5611; A-F only; 1 cr
Instructors: Bakdash, Bashar; Hinrichs, James Edward; Pihlstrom, Bruce L
DH 3131 Periodontal Anatomy; Physiology and etiology of periodontal diseases. Clinical, listopathalogical, pathogenesis of gingivitis, and periodontitis as well as the role of genetics, tobacco use and septeinic disorder. Preventitive and therapeutic procedures associated with diagnosis, prognosis, prognosis treatment planning, and initial phase of periodontal therapy. Includes content necessary for the practice of Dental Hygiene. Teaching methods include lecture and CD-ROM. Textbook: Carranza: Glickman's Periodontology, Saunders. Course only open to students enrolled in the program in Dental Hygiene.
Class time: 100% lecture
Exam format: Multiple Choice

DH 3132 Applied Nutrition in Dental Hygiene Care
(Sec 001); A-F only; 2 cr
Instructor: Van Erem, Roberta Kay
Principles of diet and nutrition applied to dental hygiene patient care; skills in dental dietary counseling. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, discussion, and dental dietary counseling. Textbook: Sander: Developing Skills for Dietary Counseling for Prevention and Control of Dental Caries; Course only open to students enrolled in the Program in Dental Hygiene.
Exam format: multiple choice

DH 3135 Oral and Maxillofacial Radiology: Theory, Principles, and Radiographic Analysis
(Sec 001); A-F only; 2 cr
Instructor: Kuba, Ramesh K
Study of atomic radiations; the characteristics, production, and control of radiographs; principles of radiographic exposures; recent concepts in radigraphy; principles of radiation biology, radiation dosimetry, radiation protection, and radiation regulations. Discrepancies and technical errors in intraoral radiographs; radiographic anatomy; and radiagraphic evidence of deviations from anatomic variations. Includes content necessary for the practice of dental hygiene. Textbook: Goaz & White: Oral Radiology: Principles & Interpretation. Mosby; Course only open to students enrolled in Program in Dental Hygiene.
Class time: 100% lecture
Exam format: multiple choice

DH 4125W The Dental Hygiene Care Process Clinical Application V
(Sec 001); max crs 6; A-F only; meets CLE req of Writing Intensive; 1-6 cr
Instructors: Newell, Kathleen Jane; Ibrahem, Renee Elias; Lokkesmoe, Loris
Adapt dental hygiene care process to meet preventive and treatment needs of traditional and special needs patients. Analyze patient preventive and treatment needs through case preventions. Discuss community service, cultural diversity, and family violence issues as well as new products, techniques, and research. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture and clinical experiences. Textbook: None. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: 10% lecture, 5% discussion, 85% Clinic
Grade: 10% special projects, 90% , Clinic Evaluation

DH 4131 Epidemiology, Prevention, Dental Public Health, and Community Outreach
(Sec 001); Credit will not be granted if credit has been received for: DENT 5401, DENT 5401, DENT 5401; A-F only; 3 cr
Instructor: Bryan, Patricia A
Epidemiological methods of investigation and patterns of oral diseases; scope and content of the specialty of dental public health; public health process as related to community setting. Includes content necessary for the practice of dental hygiene. Teaching methods include lecture, discussion, and community outreach experiences. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: 80% lecture, 20% community outreach
Exam format: multiple choice

DH 4132W Ethics, Jurisprudence, and Principles of Practice
(Sec 001); A-F only; meets CLE req of Writing Intensive; 2 cr
Instructor: Newell, Kathleen Jane
Career planning, team building, employment seeking, jurisprudence, and ethical decision making. Includes content necessary for the practice of dental hygiene. Textbook: None; Course only open to students enrolled in the Program in Dental Hygiene.

Class time: 80% lecture, 20% discussion
Exam format: essay

DH 4137 Patient Management IV (PCG)
(Sec 001); Credit will not be granted if credit has been received for: DENT 6434; A-F only; 1 cr
Instructor: STAFF
Small-group, cooperative learning setting integrates dental and dental hygiene students. Apply patient care skills taught in other courses. Focus is on communication skills, patient management, teamwork, collegiality, and practice philosophy. Includes content necessary for the practice of dental hygiene. Teaching methods include small group discussion. Textbook: None. Course only open to students enrolled in the Program in Dental Hygiene.
Class time: 100% discussion

Design, Housing, and Apparel

240 McNeal Hall 612-624-9700

DHA 1201 Clothing Design, Merchandising, and the Consumer
(Sec 001); A-F only; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: Johnson, Kim KP
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 will be web enhanced thru WebCT.
Class time: 50% lecture, 20% discussion, 30% Guest speakers, videos
Work load: 30 pages of reading per week, 4 exams, 0 papers, In class activities, quizzes are required.
Grade: 25% final exam, 25% quizzes, 10% class participation, 40% , Exams given during the semester
Exam format: Multiple choice, true/false, fill in the blank

DHA 1311 Foundations I: Drawing and Design in Two and Three Dimensions
(Sec 001-005); A-F only; prereq—DHA major or pre-major; 4 cr
Instructor: STAFF
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.
Class time: 20% lecture, 20% discussion, 60% studio work
Work load: 12 hours work outside class per week on various drawing assignments
Grade: 10% class participation, 90% , visual assignments
Exam format: Final presentation

DHA 1312 Foundations II: Color and Design in Two and Three Dimensions
(Sec 001-004); A-F only; prereq—DHA major or pre-major; 4 cr
Instructor: STAFF
"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. Sucessful 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.
Class time: 20% lecture, 20% critique; 60% studio work
Work load: 10 pages of reading per week, 15 pages of writing per semester, 7 major designs and 16 in-studio exercises
Grade: 20% written reports/papers, 80% , studio designs and exercises

DHA 1315 Foundations III: The Graphic Studio
(Sec 001, 002); A-F only; prereq—[DHA major or pre-major] or instr consent; 4 cr
Instructor: STAFF
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.
Class time: 50% lecture, 10% discussion, 40% laboratory
Grade: 25% class participation, 50% problem solving, 25% , in-class exercises

DHA 1601 Interior Design Studio I
(Sec 001-004); A-F only; prereq—DHA pre-major; 4 cr
Instructor: STAFF
Introduction to theories used to solve interior design problems related to human behavior. Course based upon the design process and communication skills required of the interior design profession.
Class time: 5% lecture, 10% discussion, 85% studio
Work load: 15 pages of reading per week, 10 pages of writing per semester, 3 exams, studio projects
Grade: 10% quizzes, 5% class participation, 85% , studio projects
Exam format: short answer/essay

DHA 2213 Textile Analysis
(Sec 001); A-F only; 4 cr
Instructor: Bye, Elizabeth Kersch
Combination lecture and lab course covering the physical, chemical and biological characteristics of fibers, yarns, textile structures, and finishes. Focus on the effect on performance/appearance of textile products including clothing, interior, and industrial textiles.
Class time: 40% lecture, 60% laboratory
Work load: 75 pages of reading per week, 3 exams, 1 papers
Grade: 15% mid-semester exam(s), 20% final exam, 10% written reports/papers, 40% lab work, 15% , second exam
Exam format: Multiple choice, true/false, fill in the blank

DHA 2221 Clothing Design Studio I
(Sec 001); A-F only; prereq—[1201 or pass sewing proficiency exam], 1221, 1311, 1312, DHA [major or pre-major]; 4 cr
Instructor: STAFF
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 patternshapes. + To understand and utilize flat pattern manipulation to vary pattern style while maintaining size in the design of clothing. + To 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.
Class time: 25% lecture, 75% Studio
Work load: 50% excersises; 25% projects; 1 major project
Grade: 50% special projects, 50% problem solving

DHA 2311 Drawing and Illustration
(Sec 001-003); A-F only; prereq—1311, 1312, [DHA major or premajor]; 3 cr
Instructor: STAFF
This course emphasizes drawing skills and introduces illustration concepts and techniques. Students will build on their drawing skills from DHA 1311, continuing to develop observational drawing skills, and applying these to

specific illustration projects. The emphasis will be on the integration of design principles with illustration technique.
Class time: 20% lecture, 20% discussion, 60% studio work in class
Work load: 4 pages of writing per semester, 10 in-class and homework assignments
Grade: 10% class participation, 90% , in-class and homwork visual assignments

DHA 2345 Typographic Design

(Sec 001); A-F only; prereq—DHA major, pass portfolio review; 3 cr
Instructor: STAFF
Typographic Design is an introduction to the art of visual communication: the visual realization of a most basic element of communication—the word. The history of typographic forms, principles of composition, and the expressive potential of type will be explored though reading, research, exercises, and design production. Sequential studies will follow the design process: problem-solving through exploration, experimentation, selection, critique, and refinement. Effectiveness of typographic design will be evaluated in terms of legibility, readability, and expression: the direct correlation to gestalt design principles will be evident. Assignments include textbook readings, research from additional sources, analysis and critique of found design, and, primarily, studio design production. Studio assignments will involve both handwork, to train the eye and hand; and digital typographic design and illustration using QuarkXpress and Illustrator. Class sessions will be held in both classrooms and Macintosh studios. This class is for Graphic Design majors who have passed portfolio review only.
Class time: 10% lecture, 60% studio; 30% critique
Work load: 8 pages of writing per semester, 2 papers, 8 studio projects
Grade: 100% , studio design projects including process participation

DHA 2401 Introduction to Housing

(Sec 001); A-F only; prereq—1101 or instr consent; 3 cr
Instructor: Ziebarth, Ann
Housing is more than "shelter". Social, economic, and psychological factors all influence what is home. This course is designed to develop an understanding of and appreciation for the complexity of housing. The goal is to familiarize you with housing as a process and a product in the context of the individual, the family, and the community. Topics addressed include: housing trends, economic constraints, the characteristics of owners and renters, financing home ownership, the housing market, and public policies affecting housing. There are no prerequisites for the class. It is an introduction and overview to the field of Housing Studies. Housing Studies majors will need to take the course as a prerequisitie to upper divisional course, but anyone with an interest in housing is welcome to participate. The course is designed primarily for undergraduate students, but is open to anyone.
Class time: 75% lecture, 20% discussion, 5% In class exercises
Work load: 60 pages of reading per week, 30 pages of writing per semester, 2 exams
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/ papers, 10% quizzes, 10% class participation, 5% problem solving
Exam format: Essay and short answer

DHA 2603 Interior Design Studio III

(Sec 001, 002); A-F only; prereq—1602 with grade of at least C, pass portfolio review, DHA major; 4 cr
Instructor: STAFF
Focus of the course is on presentation skills design of interior environment as influenced by neighborhood, adjacent structures, regional context and diverse cultures.
Class time: 5% lecture, 10% discussion, 85% studio
Work load: 10 pages of reading per week, 10 pages of writing per semester, 80 studio projects
Grade: 95% , studio projects

DHA 2612 Interior Materials and Life Safety

(Sec 001); A-F only; prereq—Pass portfolio review, DHA major; 4 cr
Instructor: Ginthner, Delores Ann **!!Outstanding Achievement Award, CHE Educ Leadership!!**
Examining environmental issues from global to interior spaces. Utilizing a life cycle analysis in evaluating interior design materials and construction and their impact on the natural environment. Exploring the impact of building codes, environmental issues, legislation, and social awareness on designing for life safety, health, universal design, and our earth's resources.
Class time: 40% lecture, 40% discussion, 20% Small groups and field trips
Work load: 30-50 pages of reading per week, 15 pages of writing per semester, 4 papers, 5 quizzes; Cost and Building analysis; Open-book exam
Grade: 20% special projects, 40% quizzes, 10% in-class presentations, 10% class participation, 20% problem solving
Exam format: Multiple choice, short answer and objective questions

DHA 2621 Computer Aided Design: Interior Design

(Sec 002); A-F only; prereq—[DHA major, pass portfolio review] or instr consent; 4 cr
Instructor: STAFF
Application of two- and three-dimensional computer drawing in design/ visualization of interior space. AutoCAD software used on a window-based system.
Class time: 5% lecture, 5% discussion, 60% laboratory, 30% design problem solving
Work load: 10 pages of reading per week, 3 exams, CAD drafting/2 and 3D
Grade: 10% quizzes, 5% class participation, 85% problem solving
Exam format: CAD exercises and short answer

DHA 3217 Fashion: Trends and Visual Analysis

(Sec 001); A-F only; prereq—2213, 2214; 3 cr
Instructor: De Long, Marilyn R
How the consumer responds to the quality and character of clothing is examined through perception and aesthetics. How trends disseminate through a tight market is considered. Format includes discussion and application of concepts through a laboratory. Target audience includes undergraduate students in design and retail merchandising, but not limited to major.
Class time: 25% lecture, 25% discussion, 50% laboratory
Work load: 20 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers
Grade: 25% quizzes, 25% class participation, 25% lab work, 25% problem solving
Exam format: Essay and short answer

DHA 3223 Clothing Design Studio III

(Sec 001); A-F only; prereq—DHA major, 2222, pass portfolio review; 4 cr
Instructor: STAFF
This course is designed for clothing design majors as part of the clothing design studio sequence. The study of tailored and non-tailored clothing structures is covered. Experimentation with a variety of materials and structures using innovative methods is explored and implemented with a series of garments.
Class time: 15% lecture, 85% studio work
Work load: projects require an average of 15 hours per week out of class
Grade: 80% special projects, 10% in-class presentations, 10% lab work

DHA 3312 Color and Form in Surface Design

(Sec 001); A-F only; prereq—DHA major, pass portfolio review; 3 cr
Instructor: Boyd-Brent, James W
Building on DHA 1312, this course will explore color theory and practice in surface design using a variety of hands-on materials, including watercolor, monoprints, and relief prints.
Class time: 10% lecture, 20% discussion, 70% visual assignments and in-class work
Work load: 4 pages of reading per week, 4 pages of writing per semester
Grade: 5% mid-semester exam(s), 10% class participation, 85% , visual assignments and in-class work

DHA 3352 Graphic Design II: Identity and Symbols

(Sec 001); A-F only; prereq—2345, 2351, 3353, pass portfolio review, DHA major; 3 cr
Instructor: STAFF
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.
Class time: 10% lecture, 10% discussion, 80% studio time
Work load: 5 projects
Grade: 60% special projects, 10% class participation, 30% problem solving

DHA 3605 Interior Design Studio V
(Sec 001, 002); A-F only; prereq—2604 with grade of at least C, DHA major; 4 cr
Instructor: STAFF
Advanced interior design projects dealing with small to medium scale spaces. Emphasizes special-needs populations.
Class time: 5% lecture, 10% discussion, 85% design problem solving
Work load: 10 pages of reading per week, 10 pages of writing per semester, 80 design projects
Grade: 5% in-class presentations, 5% class participation, 90% , studio projects

DHA 3614 Interior Design Ethics and Professional Practice
(Sec 001); A-F only; prereq—2604, pass portfolio review; meets CLE req of Citizenship/Publ Ethics Theme; 4 cr
Instructor: STAFF
The business of interior design, professional ethics and responsible design are emphasized. Students investigate their responsibility to their business clients, colleagues and the community at large. Professional portfolios and credentials will be discussed. This course will be web enhanced.
Class time: 35% lecture, 30% discussion, 35% portions of the course on the web
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers
Grade: 20% special projects, 30% quizzes, 10% class participation, 40% problem solving
Exam format: multiple choice, essay

DHA 4131 History of Visual Communication
(Sec 001); A-F only; prereq—Intro history or art history course; meets CLE req of Historical Perspective Core; 4 cr
Instructor: Martinson, Barbara Elizabe
Course Description:This course will provide an historical analysis of visual communication with emphasis on the technological, cultural, and aesthetic influences on graphic design. Course format will include lecture, video, class session activities, and course readings. There will be nine quizzes, four tests, and several projects. Course Objectives: Upon completion of this course students will: 1) Have gained an understanding of the role that graphic communications play as part of material culture-part of the designed human environment. 2) Have an awareness of how graphic design is influenced by and also affects the cultural context. 3) Have investigated the technological, cultural, and aesthetic influences on graphic design. 4) Have an awareness of the dominant concepts and individuals within the field of visual communication.
Class time: 50% lecture, 25% discussion, 25% Video
Work load: 100 pages of reading per week, 15 pages of writing per semester, 4 exams, 1 papers, Design projects
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 10% quizzes, 15% problem solving
Exam format: Identification, compare/contrast, short answer, brief essay

DHA 4161 History of Interiors and Furnishings: Ancient to 1750
(Sec 001); A-F only; prereq—Arch history course or instr consent; meets CLE req of International Perspect Theme; 4 cr
Instructor: Watson, Stephanie A
Study of European and American interiors and furnishings including furniture, textiles and decorative objects.
Class time: 70% lecture, 20% discussion, 10% small groups
Work load: 20 pages of reading per week, 10 pages of writing per semester, special projects
Grade: 40% final exam, 10% written reports/papers, 10% special projects, 35% quizzes, 5% class participation
Exam format: multiple choice, essay

DHA 4225 Clothing Design Studio V
(Sec 001); A-F only; prereq—3224, DHA Major; 4 cr
Instructor: Bye, Elizabeth Kersch
Senior level studio based course. Students use the design process to research and develop a marketable line of garments in preparation for public presentation
Class time: 15% lecture, 85% Studio
Work load: 5 papers, 3 completed garments
Grade: 40% written reports/papers, 60% special projects

DHA 4334 Computer Applications II: Design for the Digital Environment
(Sec 001); A-F only; prereq—[2334 or instr consent], DHA major or grad student, pass portfolio review; 3 cr
Instructor: Hokanson, Brad
DHA 4334 deals with the use and creation of digital images and video in a computer environment. Significant effort will be expanded on the creation of new images, their meaning and use; a parallel effort will focus in the use of Macromedia Flash. The interaction between form and content will be paramount; images and multimedia have meaning, and the technical skills to make given forms is essential to creating in the new digital realm. A limited number of advanced non majors may be granted permission to take the course by the instructor.
Class time: 15% lecture, 15% discussion, 70% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, Approximately 3GB of Digital Work.
Grade: 20% class participation, 80% problem solving
Exam format: Visual
Course URL: 160.94.18.218/4334/schedule.html

DHA 4340 Woven, Knit, and Non-Woven Fiber Design Workshop
(Sec 001); max crs 8; A-F only; 4 cr
Instructor: STAFF
Studio experience in development and production of woven, knit, and non-woven fiber projects with application to apparel and interior design. Students will explore several design methods and complete several projects. This course will be web enhanced with a goal of showing this year's work on web site.
Class time: 20% lecture, 80% studio
Work load: 3-5 major projects
Grade: 20% class participation, 80% , projects
Exam format: critique of semester's work

DHA 4345 Advanced Typographic Design
(Sec 001); A-F only; prereq—2345, 2351, concurrent enrollment in 3352, [DHA major or grad student], pass portfolio review; 4 cr
Instructor: Waldron, Carol Clare
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.
Class time: 10% discussion, 90% studio design projects and critique
Work load: 4 major projects
Grade: 100% , studio design project and performance

DHA 4352 Design Process: Bookmaking
(Sec 001); A-F only; prereq—[DHA major or grad student], pass portfolio review; 3 cr
Instructor: Waldron, Carol Clare
This course focuses on the relationship between the material of production and the design problem and its most effective solution. Students develop production skills in the specified medium, while gaining sensitivity to the material's expressive potential. This is a design studio course in which the production of one-of-a-kind of handmade books, portfolios, and presentation cases will be explored. The focus will be on predominantly paper-based materials and low-tech constructions that don't require a lot of specialty equipment. Upon successful completion of this class, you will be able to: 1) construct non-traditional book forms with finely crafted manipulation of paper, board, and related materials; 2)conceptualize, design, produce, and construct one-of-a-kind visual book with effectively unified content and structure; 3)design and construct presentation structures; 4)invent your own structures to meet structural, conceptual, and expressive objectives. When you complete this class, you will possess an impressive array quality material design. This class is intended primarily for DHA majors who have completed design foundations coursework, but others are welcome as space allows.
Class time: 100% Studio demonstration and presentation.
Work load: 3 pages of writing per semester, 4 major projects and (approx) 12 in-studio projects.
Grade: 65% projects; 35% in-studio projects

DHA 4354 Graphic Design IV: Integrative Campaign
(Sec 001, 002); A-F only; prereq—3353, DHA major, pass portfolio review; 4 cr
Instructor: STAFF
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.
Class time: 30% lecture, 30% discussion, 40% studio time
Work load: 5 projects
Grade: 25% class participation, 75% , design project

DHA 4384 Interactive Media
(Sec 001); A-F only; prereq—4334 or instr consent, [DHA major or grad student], pass portfolio review; 3 cr
Instructor: STAFF
Design of interactive multimedia projects. Experience developing interactive presentations and electronic publishing. Software includes hypermedia, scripting, video and sound editing, animation, digital output.

DHA 4607 Interior Design Studio VII
(Sec 001, 002); A-F only; prereq—3606 with grade of at least C, 3614, DHA major; 4 cr
Instructor: STAFF
Interior Design Studio for majors. The course addresses sense of place and the contribution of artifacts to interior environments. The projects include using historic precedent for adaptive use or renovation of spaces. Life safety issues and universal design are part of the design parameters.
Class time: 5% lecture, 10% discussion, 85% design studio, critique and the design process
Work load: 20 pages of writing per semester, written, verbal, and visual presentations of designs
Grade: 15% in-class presentations, 5% class participation, 80% , design projects

DHA 5193 Directed Study in Design, Housing, and Apparel
(Sec 001); max crs 4; A-F only; prereq—instr consent; 1-4 cr
Instructor: STAFF
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.
Class time: 100% Working with supervising faculty
Work load: Depends upon numbers of credit
Grade: 100% written reports/papers, Or may be related to a project

DHA 5196 Field Study: National/International
(Sec 001); max crs 10; A-F only; 1-10 cr
Instructor: STAFF
Faculty directed field study in a national or international setting. Appropriate for graduates and undergraduates. See supervising faculty.
Class time: 100% Related to travel experienceand instruction. Depends upon faculty supervising the course.
Work load: Depends upon criteria for that particular experience.
Grade: 100% , Depends upon criteria for that particular experience

DHA 5383 Animation Design
(Sec 001); A-F only; prereq—[4334, [DHA major or grad student]] or instr consent; 3 cr
Instructor: Chu, Sauman
Students will investigate animation as a means to communicate through time-based electronic design. Students will be introduced to basic 3D modeling. Design projects will develop and incorporate these elements into creation of multimedia presentations.
Class time: 100% Demonstration, studio work, and critique
Work load: 3-5 studio projects
Grade: 100% , Studio projects, participation

DHA 5467W Housing and the Social Environment
(Sec 001); A-F only; prereq—2401 or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Yust, Becky L
The purposes of the course are to (1) present a social science theory of how families and households deal with the problem of providing housing for themselves, (2) apply the theory to the needs of particular groups within the population, and (3) use the theory and information about the group to explore housing alternatives that would meet the needs of the group. The course deals with the housing choices of households in the context of the community norms in the social environment with an emphasis on the special needs of the elderly, disabled, minorities, large families, female-headed households, and low-income households. The focus will be on studying the various housing and living arrangements available to households of different types. The course is intended to challenge students to develop their own ideas about the housing of a type of household and requires independent library work and independent thinking. The assignments are flexible enough to permit students to use the strength of their individual backgrounds to good advantage in the class. For example, if you have experience in some specific aspect of housing or with a particular one of the groups included in the course you will be able to focus on aspects that you have knowledge about. The writing assignments build throughout the semester, so that the final paper (about 15 pages) utilizes information from prior assignments.
Class time: 70% lecture, 30% discussion
Work load: 40 pages of reading per week, 40 pages of writing per semester, 3 exams, 4 papers
Grade: 25% mid-semester exam(s), 13% final exam, 44% written reports/papers, 6% in-class presentations, 12% class participation
Exam format: multiple choice

Dutch
205 Folwell Hall; 612-625-2080

Dtch 1001 Beginning Dutch
(Sec 001); Credit will not be granted if credit has been received for: DTCH 4001; 5 cr
Instructor: Oosterhoff, Jenneke A **!!Outstanding Service Award, CLA!!**
This is the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Dutch. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. The main books are the text book and exercise book of "Code Nederlands" 1. The book is accompanied by two audio tapes which will be used by the instructor in class as well as 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, pictures) will be an integral part of the course. The first-year courses encourage extensive student interaction, partner activities, and group work. A selection of topics to be introduced includes: shopping, going out, giving directions, looking for housing, comparing school systems etc. Students should expect an average of 2 hours of outside preparation for each class session. See the description for Dtch 4001 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Class time: 20% lecture, 80% interactive exercises (including lab)
Grade: 40% quizzes, 40% class participation, 20% , written homework

Dtch 1003 Intermediate Dutch
(Sec 001); Credit will not be granted if credit has been received for: DTCH 4003; prereq—1002; 5 cr
Instructor: Beuker, Brechtje Cornelia Maria
This course continues the presentation of language skills (speaking, writing, listening and reading) begun in Dutch 1001-2 with special focus on the extension of speaking and writing skills. The main books are the text book and exercise book of "Code Nederlands" 2. This book is accompanied by an audio tape which will be used in class by the instructor as well as by the students at home. Class time will be devoted mostly to speaking and pre-writing activities. Students will write 5 formal essays, each of which will be followed by a rewrite. In addition, the students 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. Students should expect an average of three hours of outside preparation per class session. See the description for Dtch 4003 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Class time: 20% lecture, 80% discussion
Grade: 30% written reports/papers, 30% quizzes, 40% , participation and preparation

Dtch 3011 Conversation and Composition
(Sec 001); prereq—Passing score on GPT or instr consent; 4 cr
Instructor: Oosterhoff, Jenneke A **!!Outstanding Service Award, CLA!!**
This course is communicatively oriented and designed to refine advanced students' oral and written expression in Dutch and aid in the development of critical analysis skills. The main textbook for this course is 0031. Directe toegang tot Nederland(s). This book offers a variety of topics with a special interest in Dutch culture. The book is accompanied by a cassette tape and a video tape with authentic sections from Dutch TV. For a comprehensive grammar review, we will use Beter Nederlands. Grammaticaal hulpboek voor anderstaligen, vol. 1 & 2. A literary reading and two feature films will complement the other instructional materials.

Grade: 30% class participation, 30% , essay writing and revision; 20% oral presentations and projects; 20% informal writing assignments of

Dtch 3993 Directed Studies
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-5 cr
Instructor: STAFF
Guided individual reading or study. The student approaches an appropriate professor with a topic of interest, and if the professor has time and is willing to guide the student, the student, along with the professor, fills out a form which is available in the department office (205 Folwell). On this form, they specify the topic, reading and study materials, and form of evaluation.

Dtch 4001 Beginning Dutch
(Sec 001); Credit will not be granted if credit has been received for: DTCH 1001, DTCH 1001; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: Oosterhoff, Jenneke A **!!Outstanding Service Award, CLA!!**
See the course description for Dutch 1001. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Dutch 1001 under the number 4001 for 2 credits. Contact the department office, 612-625-2080, for a permission number.

Dtch 4003 Intermediate Dutch
(Sec 001); Credit will not be granted if credit has been received for: DTCH 1003, DTCH 1003; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: Beuker, Brechtje Cornelia Maria
See the course description for Dutch 1003. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Dutch 1003 under the number 4003 for 2 credits. Contact the department office, 612-625-2080, for a permission number.

Dtch 5490 Topics in Dutch Literature: Dutch Colonial History in Literature and Film
(Sec 001); max crs 9; 3 repeats allowed; 3 cr
Instructor: Oosterhoff, Jenneke A **!!Outstanding Service Award, CLA!!**
This course takes advanced students of Dutch language and literature deeper into the colonial history of the Netherlands. After a brief introduction into Dutch colonial history, students will read, analyze and discuss selected masterworks of Dutch colonial literature by authors such as Multatuli, Louis Couperus, Hella Haasse, Maria Dermout, Adriaan van Dis and others. Film viewings of some of these works are also on the program. The readings, discussions and writings are all in Dutch. As part of the course, students are expected to do independent research on a variety of topics relating to the main topic of the course, and report on their findings in class.
Class time: 20% lecture, 80% discussion
Work load: 100 pages of reading per week, 20 pages of writing per semester, 8 papers
Grade: 50% written reports/papers, 10% in-class presentations, 40% class participation
Exam format: Essay

Dtch 5993 Directed Studies
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
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.

East Asian Studies
214 Social Sciences Tower; 612-624-9007

EAS 3461 Introduction to East Asia I: The Imperial Age
(Sec 001); Same as: HIST 3461; max crs 4; prereq—credit will not be granted if credit received for: Hist 3461; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3-4 cr
Instructor: Wang, Liping
This is a comprehensive introduction to East Asia (China, Japan, Korea, and Vietnam) from prehistoric times to the sixteenth century. It traces the evolution of major political and economic institutions as ways to understand basic structures of political authority and systems of resource distribution in these societies. It outlines major schools of East Asian philosophy and religions, such as Confucianism, Daoism, and Buddhism, and discusses their development and influence in each of the four countries. It analyzes some of the most important features of East Asian society, i.e., family structure and gender relationships in ideology as well as in practice. As part of the overview of East Asian society and culture, the course also introduces main modes of artistic expression through various kinds of visual materials as well as visit to museum. The course stresses the interconnections within East Asia while highlighting the distinctive paths of historical changes in each of the four countries.
Class time: 80% lecture, 20% discussion
Work load: 7-10 pages of writing per semester, 2 exams, 1 papers

Ecology, Evolution, and Behavior
100 Ecology Building; 612-625-5700

EEB 3001 Ecology and Society
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: Biol 3407; [Jr or sr] recommended; biological sciences students may not apply cr toward major; meets CLE req of Environment Theme; 3 cr
Instructor: STAFF
In this course, we will study factors that affect the occurrence, functioning and distribution of organisms on our planet. We will emphasize current issues in ecology and management of ecological systems, from culture tubes to global issues. This course is designed for students with little or no background in biology. One can expect to obtain a greater understanding of the influence of physical, chemical and geological processes on ecology, as well as the influence of ecological processes on geochemical and geophysical dynamics. Human influences and ecological dilemmas will be illustrated in many cases with examples from current events. Lecture notes and other supplementary materials will be made availabe on the web. Includes recitation.

EEB 3361 Visions of Nature: The Natural World and Political Thought
(Sec 001); Same as: CSCL 3361; prereq—CSCL 3361; soph or jr or sr; biological sciences students may not apply these credits toward the major; meets CLE req of Citizen/Publ Ethics Theme; meets CLE req of Environment Theme; 4 cr
Instructor: Regal, Philip J
Unscientific theories about nature exist that can complicate an understanding of modern scientific ecology, global ecological threats and civic matters. The theories include ideas about the balance of nature, and human nature. Scientifically misleading ideas in popular thought and philosophy have emerged from a rich history that has been part of efforts to legitimate the social, economic, an religious transformations that have led to the formation of the modern world system over the centuries, from ancient times through the present. This course will discuss popular and philosophical ideas about nature and contrast them to modern scientific knowledge. It will analyze the historical roles that the popular and philosophical visions of nature have played in campaigns to morally legitimate each stage of social, psychological and economic transformations in the development of the modern world system. The implications of this history for current environmental concerns and for the relationships of the citizen to society will be discussed. Grades will be based on a midterm and final examination, and on short assignments such as a research paper or film reviews to be negotiated with the class as a whole. Class discussion is encouraged.

EEB 4014W Ecology of Vegetation
(Sec 001); prereq—3407, Biol 3007; meets CLE req of Writing Intensive; 3 cr
Instructor: Cushing, Edward J
The course is designed to meet the diverse needs of undergraduates and graduate students in natural resources and environmental studies, wildlife conservation, conservation biology, ecology, plant biology, and landscape architecture. A writing-intensive course. Qualitative methods of describing, classifying, and mapping vegetation in the field; the observable environmental and historical factors that affect it; quantitative sampling and classification of vegetation types. Causes for the spatial and temporal variation of vegetation and ecosystem properties on landscapes, and theory of the structure and dynamics of terrestrial communities and ecosystems. Sight recognition of common plants of vegetation types in Minnesota (oak woodland, sugar-maple forest, mixed conifer-deciduous forest, cultivated field, prairie, and bog). An afternoon field trip in each of the first 6 weeks of the semester, each including a plant identification quiz. One weekend trip to deciduous forest, conifer forest, or prairie (student's choice). Six labs in the second half of the semester, with problems sets on the analysis of quantitative data. Two lectures scheduled per week, but some are canceled in compensation for the weekend trip. Two written field reports and a mid-semester and final examination. Slides sets (also on the Web) are assigned for the plants to be learned. No textbook, but a packet of handouts and assigned papers.
Class time: 27% lecture, 14% discussion, 59% field trips
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 2 papers, 5 quizzes
Grade: 15% mid-semester exam(s), 20% final exam, 37% written reports/papers, 20% quizzes, 8% problem solving
Exam format: short essay
Course URL: www.webct.umn.edu

EEB 4129 Mammalogy
(Sec 001); Same as: FW 4129; A-F only; prereq—credit will not be granted if credit received for: FW 4129; Biol 1001 or Biol 2012; 4 cr
Instructor: STAFF
Student may contact the instructor or department for information.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 2 papers
Grade: 50% mid-semester exam(s), 25% final exam, 25% written reports/papers
Exam format: Multiple choice and essay

EEB 4601 Limnology
(Sec 001); Same as: GEO 4601; A-F only; prereq—credit will not be granted if credit received for: Geo 4601; Chem 1022; 3 cr
Instructor: Megard, Robert O
This course, for upper division undergraduates and beginning graduate students, deals with aquatic ecosystems, with emphasis on the geology, physics, chemistry and biology of lakes. Geologic processes (especially glaciation) that produce basins and affect water chemistry are discussed first. Then lake physics (light transmission, seasonal temperature stratification, and water movements) is considered, to provide background for subsequent chemical and biological topics. This part of the course has a geographic dimension to help students understand global variability among lakes ranging from ponds up to Lake Superior and the Caspian Sea. The chemical component deals first with the major inorganic ions in lake water, then with spatial and temporal distributions of oxygen, carbon and microbial nutrients (such as nitrogen, phosphorus, and sulfur), with special attention to plankton photosynthesis, respiration and water quality. The course's biological component emphasizes the most abundant organisms in lakes, the plankton (bacteria, algae and small animals suspended in water), their interactions with each other (food webs), with lake physics, and with lake chemistry. Large rivers are discussed briefly, especially water quality in the Mississippi River. A separate two-credit laboratory (EEB 4605) is offered.
Class time: 100% lecture
Work load: 20 pages of reading per week, 3 exams
Grade: 70% mid-semester exam(s), 30% final exam
Exam format: variable format
Course URL: biosci.cbs.umn.edu/class/biol/4601

EEB 4609W Ecosystem Ecology
(Sec 001); prereq—Biol 3407; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
Ecosystem Ecology is roughly divided into halves. The first half will provide some background on the history of ecosystem ecology and on climate and soils, but will focus primarily on element cycling, particularly carbon and nutrient cycles. We will examine the energy base of ecosystems—what controls carbon fixation by plants and what is the fate of that fixed carbon. We will also study nutrient inputs to, cycling through, and losses from ecosystems. The second half will focus on interactions and perturbations, including those resulting from human-induced global changes. We will examine transfers of energy from primary producers to higher trophic levels and how herbivory and disturbances such as fire affect primary production and nutrient cycling. We will examine how elevated CO2. changing climate, increased atmospheric nitrogen deposition, biological invasions, and losses of biodiversity alter ecosystem processes. We will also discuss human dependence on ecosystems. This course is intended for upper level undergraduate and graduate students. The course includes a recitation in which students will read and discuss primary literature. There will be a mid-term and a 10-page term paper as well as the final exam.
Class time: 66% lecture, 34% discussion
Work load: 20-30 pages of reading per week, 10-12 pages of writing per semester, 2 exams, 1 papers, students are required to lead one discussion
Grade: 30% mid-semester exam(s), 40% final exam, 25% written reports/papers, 5% class participation
Exam format: Essay

Economics
1035 Heller Hall; 612-625-6353

Econ 1101 Principles of Microeconomics
(Sec 001, 017, 036, 038, 040, 042, 044, 046, 048); Credit will not be granted if credit has been received for: ECON 1104, ECON 1104, ECON 1104, ECON 1101H, ECON 1101H, ECON 1111; prereq—knowledge of plane geometry and advanced algebra; credit will not be granted if credit received for: 1104, 1111, ApEc 1101; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: STAFF
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.
Class time: 75% lecture, 25% in discussion section
Work load: 3 exams

Econ 1102 Principles of Macroeconomics
(Sec 001); Credit will not be granted if credit has been received for: APEC 1102, APEC 1102, APEC 1102, APEC 1102, APEC 1102, ECON 1105, ECON 1105, ECON 1105, ECON 1102H, ECON 1102H, ECON 1112; prereq—[1101 or equiv], knowledge of plane geometry and advanced algebra; credit will not be granted if credit received for: 1105, 1112, ApEc 1102; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Swan, Craig E
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.
Class time: 75% lecture, 25% in discussion sections
Work load: 3 exams

Econ 1102 Principles of Macroeconomics
(Sec 028, 030, 032); Credit will not be granted if credit has been received for: APEC 1102, APEC 1102, APEC 1102, APEC 1102, APEC 1102, ECON 1105, ECON 1105, ECON 1105, ECON 1102H, ECON 1102H, ECON 1112; prereq—[1101 or equiv], knowledge of plane geometry and advanced algebra; credit will not be granted if credit received for: 1105, 1112, ApEc 1102; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: STAFF
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.
Class time: 75% lecture, 25% in discussion sections
Work load: 3 exams

Econ 1104 Principles of Microeconomics
(Sec 001); Credit will not be granted if credit has been received for: ECON 1101, ECON 1101, ECON 1101, ECON 1101H, ECON 1111; prereq—credit will not be granted if credit received for: 1101, 1111, ApEc 1101; Math 1271; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: STAFF
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.

Class time: 75% lecture, 25% in discussion section
Work load: 3 exams

Econ 3101 Intermediate Microeconomics
(Sec 001-006); Credit will not be granted if credit has been received for: ECON 3105, ECON 3105; prereq—credit will not be granted if credit received for: 3105, 3111; 1101, 1102 or equiv, Math 1271 or equiv; 4 cr
Instructor: STAFF
This is a required course for Economics majors, and is a prerequisite for most upper-division Economics courses. Students should have completed Calculus I. It includes the study of consumer and producer behavior under competitive and monopolistic conditions; factors influencing production, price, and other decisions of the firm; applications of the theory.
Class time: 100% lecture
Work load: 3 exams

Econ 3102 Intermediate Macroeconomics
(Sec 001-003); Credit will not be granted if credit has been received for: ECON 3102H, ECON 3112; prereq—credit will not be granted if credit received for: 3112; 3101 or equiv; 4 cr
Instructor: STAFF
This is one of the basic tool courses for Economics majors. It 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.
Class time: 100% lecture
Work load: 40-50 pages of reading per week, 3 exams

Econ 3701 Money and Banking
(Sec 001); Credit will not be granted if credit has been received for: ECON 4721, ECON 4721H, ECON 4721V, ECON 4729; prereq—1101, 1102 or equiv; not open to Econ majors; 3 cr
Instructor: STAFF
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.
Class time: 100% lecture
Work load: 30-40 pages of reading per week, 2 exams

Econ 3960 Topics in Economics
(Sec 001); max crs 6; prereq—1101, 1102 or equiv; 3 cr
Instructor: STAFF
he Chinese Economy: The course includes a historical and economic development of China, with emphasis on its economic indicators.
Class time: 90% lecture, 10% discussion
Work load: 40-50 pages of reading per week, 2 exams, 1 papers

Econ 4109H Honors Course: Game Theory and Applications
(Sec 001); prereq—3101, 3102 or equiv, Math 1271-1272 or equiv; meets HON req of Honors; 4 cr
Instructor: STAFF
This is recommended for Economics majors with a good mathematical background. Normal and extensive forms of Games; and applications of games.
Class time: 90% lecture, 10% discussion
Work load: 30-40 pages of reading per week, 2 exams

Econ 4211 Principles of Econometrics
(Sec 001); prereq—[[1101, 1102] or equiv], Math 2243 [or equiv], [[Stat 3021, Stat 3022] or equiv], familiarity with computers; 4 cr
Instructor: STAFF
This is a required course for Economics B.A. Quant majors. Regression analysis, and computer applications.
Class time: 80% lecture, 20% Recitation discussion
Work load: 30-40 pages of reading per week, 2 exams

Econ 4261 Introduction to Econometrics
(Sec 001); A-F only; 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; 4 cr
Instructor: STAFF
This is a required course for Economics B.S majors. Basic linear Regression model. Time Series analysis. Panel data, discrete choice models. Computer applications.
Class time: 80% lecture, 20% Recitation discussion
Work load: 40-50 pages of reading per week, 2 exams

Econ 4401 International Economics
(Sec 001); prereq—credit will not be granted if credit received for: 4401W, 4431, 4431W, 4432, 4432W, 4439; [[1101, 1102] or equiv], not open to econ majors; meets CLE req of International Perspect Theme; 3 cr
Instructor: STAFF
This is a course for non majors. It includes material on international trade as well as on international finance. Theories of trade, trade restrictions, Commercial policy. Exchange rates, international monetary systems.
Class time: 100% lecture
Work load: 30-40 pages of reading per week, 2 exams

Econ 4421W Economic Integration of the Americas
(Sec 001); prereq—3101, 3102 or equiv or instr consent; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Kehoe, Timothy J
Analysis of economic relationships among countries in the western hemishpere. Impact of NAFTA and other regional accords. Prospects for further economic integration.Comparison with European integration. This is a writing intensive course.
Class time: 80% lecture, 20% Discussion and guest lectures
Work load: 40-50 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 1 papers

Econ 4431W International Trade
(Sec 001); prereq—credit will not be granted if credit received for: 4401, 4439; 3101, 3102 or equiv; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Sahi, Simran
This class is geared towards economics majors—juniors and seniors. The material includes trade theories; trade and growth; trade barriers; regional trading blocs; and economic integration. Real-world examples and issues are presented. This is a writing-intensive class requiring a 10-15 page paper.
Class time: 90% lecture, 10% discussion
Work load: 40-50 pages of reading per week, 20-30 pages of writing per semester, 2 exams, 1 papers
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 25% problem solving
Exam format: Short essay and true/false explain
Course URL: www.econ.umn.edu/~ssahi

Econ 4741H Honors: Quantitative Analysis of the Macroeconomy
(Sec 001); prereq—credit will not be granted if credit received for: 4741 or 4741V; [[3101, 3102] or equiv], [Stat 3011 or equiv]; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Prescott, Edward C
Student may contact the instructor or department for information.

Education and Human Development
110 Wulling Hall; 612-625-6501

EdHD 5001 Learning, Cognition, and Assessment
(Sec 001); Credit will not be granted if credit has been received for: EPSY 3119; prereq—MEd/initial licensure student or CLA music ed or preteaching major or instr consent; psych course recommended;
Instructor: Samuels, S Jay **!!Educ Distinguished Teaching Award!!**
The purpose of this course is to help pre-service teachers learn how to use psychology to improve all aspects of instruction.
Class time: 50% lecture, 50% discussion
Work load: 75 pages of reading per week
Grade: 33% mid-semester exam(s), 33% final exam, 33% special projects
Exam format: Multiple choice

EdHD 5003 Developmental and Individual Differences in Educational Contexts
(Sec 001, 002); A-F only; prereq—post-bac or MEd/initial licensure or CLA music ed or preteaching major or FOE or agriculture or kinesiology or instr consent; 3 cr
Instructor: Rodgerson, Richard W
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.
Grade: 100% written reports/papers

EdHD 5007 Technology for Teaching and Learning
(Sec 001-006); A-F only; prereq—credit will not be granted if credit received for: 5007 [qtr version], CI 5300; [MEd/initial licensure or CLA music ed major or preteaching major or instr consent], basic computer skills; 1-5 cr
Instructor: Doering, Aaron H
This course is designed to prepare students to become knowledgeable and comfortable in the use of current technology in education. Students learn about the operation of technology and the ways in which it might be integrated into the classroom in support of learning. Upon completion of the course, students should be able to: 1) use a variety of software applications applicable to a classroom setting; 2) use various technologies effectively to deliver a lesson; 3) discuss how technology allows students to represent and communicate what they learn; 4) plan classroom instruction that integrates technology that provides an added value to the content; and 5) present a final project that demonstrates their knowledge of a successful lesson integrating technology. This course will be web enhanced using Webct.
Class time: 20% lecture, 30% discussion, 50% laboratory
Work load: 30 pages of reading per week, 6 projects with reflection
Grade: 20% in-class presentations, 80% , class projects
Exam format: no exams; projects only

EdHD 5009 Human Relations: Applied Skills for School and Society
(Sec 001); A-F only; prereq—MEd/init lic or CLA music ed or preteaching or instr consent; 1 cr
Instructor: Puncochar, Judith **!!UC Outstanding Teaching Award, UC!!**
EdHD 5009 is a workshop in human relations for students who are not licensed teachers. The course provides a "cognitive" psychological framework for looking at issues of racism, sexism, classism, ageism, language acquisition, homophobia, religious differences, disability and ability differences, etc. The course views prejudice as resulting from everyday cognitive processing of information and focuses on increasing beginning teachersÆ awareness of how and why prejudices develop and what each educator can do to reduce bias. EdHD 5009 uses an experiential learning approach to explore the ubiquitous nature of prejudice and provides educators with strategies and tools for anti-bias teaching in a diverse society. All course topics and assignments focus on issues related to human interactions and cultural diversity. EdHD 5009 does NOT meet the State of Minnesota's Human Relations licensure requirement for PREVIOUSLY LICENSED professional educators.
Class time: 50% lecture, 25% structured activities; 25% video/discussion
Work load: 20 pages of reading per week, 3 pages of writing per semester, 1 exams, One group project
Grade: 50% exams; 50% other
Course URL: www.coled.umn.edu

Educational Policy and Administration
330 Wulling Hall: 612-624-1006

EdPA 3302W Leadership in the Community
(Sec 002); Credit will not be granted if credit has been received for: PA 3961, PA 3961W, PA 3961W, PA 3961W; A-F only; prereq—[1301W, PA 1961W], [jr or sr], undergraduate leadership minor; meets CLE req of Writing Intensive; 3 cr
Instructors: Nobbe, June Elly; Melin, LeeAnn Jessen
Leadership and leadership capacities. Multicultural/multidimensional perspectives. Students examine their views on leadership. Leadership theory/practice. Group dynamics/behavior. Applying knowledge to practice.

EdPA 3402 Leadership Minor Field Experience
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: PA 3971; [3302W or PA 3961W] with grade of at least C, instr consent; 2 cr
Instructor: Schneider, Byron J
Core leadership information applied to leadership situations. Settings include community or educational organizations, corporations, University student organizations, and formal internships. Students identify two leadership objectives from among personal, interpersonal and organizational development. Experiential learning, individual presentations, group discussions, critical reflection/writing.

EdPA 5001 Formal Organizations in Education
(Sec 001); 3 cr
Instructor: Anderson, Melissa S.
This course presents 4 frameworks that can be used for understanding organizations, how they work, and how people in them behave. It then branches out to other organizational topics such as conflict, communication and leadership. The class sessions combine lectures and interactive exercises. Most people complete the course with greatly enhanced insight as to how organizations—especially schools, colleges, and universities—work. The course is geared to graduate students.
Class time: 25% lecture, 50% discussion, 25%
Work load: 100+ pages of reading per week, 40 pages of writing per semester, 1 exams, 2 papers
Grade: 20% final exam, 65% written reports/papers, 15% class participation
Exam format: essay

EdPA 5048 Cross-Cultural Perspectives on Leadership
(Sec 001); prereq—instr consent; 2 cr
Instructor: Paige, R Michael
This course is for any student who wishes to develop a comprehensive understanding of leadership and culture. It will introduce students to the concepts of leadership and culture that influence the functioning of culturally diverse groups, organizations, and institutions. In this class, we seek to clarify these concepts and consider how they can be applied to real world situations. Students will be expected to integrate these concepts and learn how to translate them from theory to practice. This course will employ a variety of instructional approaches including lectures, case studies, large-group and small-group discussions, and problem-solving exercises. The classroom, for example, is often such a culturally diverse environment and the teacher has an important leadership role in it. The instructor has been awarded the Education Distinguished Teaching Award and the Robert H. Beck Distinguished Faculty Member Award.
Class time: 35% lecture, 35% discussion, 30% videos, simulations
Work load: 50 pages of reading per week, 15 pages of writing per semester, 0 exams, 1 papers
Grade: 100% written reports/papers
Exam format: Essay (15-page final paper)
Course URL: webct.umn.edu/webct/public/show_course?947539745

EdPA 5061 Ethnographic Research Methods
(Sec 001); 3 cr
Instructor: Fry, Gerald Walton
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.
Class time: 30% lecture, 70% discussion
Work load: 50 pages of reading per week, 0 exams, Students do a number of short papers related to various activities.
Grade: 80% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: None
Course URL: webct.umn.edu/SCRIPT/EDPA5061_f00/scripts/scripthome

EdPA 5087 Seminar: Educational Policy and Administration
(Sec 003); max crs 24; 24 repeats allowed; 1 cr
Instructors: Walker, Joyce Ann; Schneider, Byron J
The seminar offers educational experiences co-created by faculty and students to integrate learning and leadership on community youth development issues. Seminar topics change each semester. The seminar is led, or co-taught, by graduate students and faculty with an emphasis on addressing critical issues in the field from the perspective of theory and practice. Student-led discussions, presentations, and class projects in the commu-

nity are the norm. Selected readings reflect the topic. Seminar is designed for graduate students in the Youth Development Leadership M.Ed. cohorts. Some reading assignments are available by downloading from organizational websites. This course can be taken in units of 1 or 2 credits. Students may not take more than 4 graduate credits in EdPA 5087.
Class time: 50% discussion, 25% student presentations; 25% class projects in the community
Work load: 30 pages of reading per week
Grade: 25% in-class presentations, 50% lab work, 25%, community issue assignments
Exam format: no exams

EdPA 5101 International Education and Development
(Sec 001); 3 cr
Instructor: Paige, R Michael
EdPA 5101 (3 credits) examines contemporary theories regarding the relationship between education in its various manifestations (formal, non-formal, and informal) and different dimensions of national development (economic, sociocultural, political). These relationships are examined from a multidisciplinary social science perspective. Alternative conceptualizations of development and competing theoretical perspectives on education and development will be reviewed. Critical issues in this field of study will be examined. The course format includes lectures, classroom discussions, small group discussions, and so on. This course is open to graduate and undergraduate students with an interest in International Education and Development.
Class time: 60% lecture, 40% discussion
Work load: 75-100 pages of reading per week, 25 pages of writing per semester, 2 papers
Grade: 35% mid-semester exam(s), 65% final exam
Exam format: Essay
Course URL: webct.umn..edu/webct/public/show_course

EdPA 5103 Comparative Education
(Sec 001); 3 cr
Instructor: Cogan, John J **!!Educ Distinguished Teaching Award!!**
Examination of systems and philosophies of education globally with emphasis upon African, Asian, European and North American nations. Foundations of comparative study with selected case studies as illustrations. Upper division students welcome.
Class time: 25% lecture, 50% discussion, 25% Activities, simulations, critique of readings
Work load: 50 pages of reading per week, 15 pages of writing per semester, 0 exams, 3 papers
Grade: 85% written reports/papers, 15% class participation

EdPA 5321 The Principalship
(Sec 001, 002); 3 cr
Instructor: Werner, Ann B
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.
Class time: 25% lecture, 50% discussion, 25% laboratory
Work load: 500 pages of reading per week, 30 pages of writing per semester
Grade: 50% written reports/papers, 25% class participation, 25%, reading
Exam format: projects

EdPA 5341 The American Middle School
(Sec 001); 3 cr
Instructor: Sceary, Lynn R
This course provides an overview of the American Middle School. Philosophies, skills and applications pertinent to teaching/working in middle schools are studied. Students research purposes, functions and limitations of middle schools and implications for teachers, support staff and administrators. Seminal literature and websites are discussed. Readings chronicle the history, essential components, criteria for evaluation, and the current status of middle schools in America. Characteristics of middle school students are learned. Successful integration accommodating student characteristics in best practices is noted and discussed. Field research, shadowing and inquiry techniques, are practiced. Teaching methods include guided discussion, lecture, panel presentations and discovery. Texts: Stevenson, Chris., "Teaching 10 to 14 Year Olds", New York. Longman 1998: "This We Believe. Developmentally Responsive Middle Level Schools", Columbus, Ohio. National Middle School Association. 1995. and "Turning Points: Preparing American Youth for the 21st Century", New York. The Carnegie Corporation, 1989. Open to graduate and undergraduate students with an interest in middle school philosophy and applications.
Class time: 35% lecture, 35% discussion, 30% Panels, student presentations, speakers, ITV to Crookston Campus
Work load: 60 pages of reading per week, 25-30 pages of writing per semester, 1 exams, 5 papers, 2 major projects, 3 minor projects
Grade: 15% mid-semester exam(s), 20% written reports/papers, 45% special projects, 20% class participation
Exam format: Multiple choice and short answer

EdPA 5396 Field Experience in PK-12 Educational Administration
(Sec 001); max crs 6; S-N only; prereq—instr consent; 3 cr
Instructor: Nickerson, Neal C **!!Educ Community Service Award!!**
This course is required of all students applying for a State of Minnesota Administrative License as a K-12 Principal, Superintendent, Director of Special Education, or Director of Community Education. It meets in conjunction with those taking their 320 clock hours (or more) of field experience—internship. The work done in class is based upon the experiences interns will face as they prepare for the field of Educational Administration. Case studies, simulations, small-group discussions and shared research/literature are the primary components of the class. Extensive bibliographies on leadership and leadership behavior are provided. This is a Graduate course.
Class time: 10% lecture, 70% discussion, 20% Simulations and case studies
Work load: 10 pages of reading per week, 50 pages of writing per semester, 0 exams, 8 papers
Grade: 80% special projects, 20% lab work
Exam format: None

EdPA 5501 Principles and Methods of Evaluation
(Sec 001); Same as: EPSY 5243; 3 cr
Instructor: King, Jean Anne
This is an introductory course in designing program evaluations. Topics include: how to frame an evaluation study; examine a program's context; select appropriate methodology, and remain attentive to issues of diversity and multiple audiences. The course will also teach students survey and observation skills.
Class time: 30% lecture, 70% discussion
Work load: 60 pages of reading per week, 30 pages of writing per semester, 2 exams, 4 papers
Grade: 15% mid-semester exam(s), 20% final exam, 55% written reports/papers, 10% class participation
Exam format: Midterm: short answer and essay..... Final: take home (essay)
Course URL: webct3.umn.edu/SCRIPT/EDPA5501_S01

EdPA 5701 U.S. Higher Education
(Sec 001); 3 cr
Instructor: Anderson, Melissa S.
This course has 2 parts: the history of U.S. higher education and contemporary issues in higher education. Students learn about the development of the U.S. higher education system from its beginnings in New England, through its expansion to research universities, to the astoundingly complex current system. Particular attention is paid in the second part of the course to higher education's structure at many levels, issues of academic freedom, the many constituencies of higher education, and the environments of colleges an duniversities. Most students who take the class are graduate students, but advanced undergraduates are welcome.
Class time: 40% lecture, 50% discussion, 10% in-class projects
Work load: 100+ pages of reading per week, 35 pages of writing per semester, 1 exams, 2 papers
Grade: 20% mid-semester exam(s), 35% final exam, 35% written reports/papers, 10% in-class presentations
Exam format: essay

Educational Psychology
204 Burton Hall; 612-[illegible]1-1698

EPsy 3119 Learning, Cognition, and Assessment
(Sec 001); Credit will not be granted if credit has been received for: EDHD 5001; A-F only; meets CLE req of Social Science Core; 3 cr
Instructor: Samuels, S Jay **!!Educ Distinguished Teaching Award!!**
The purpose of this course is to help pre-service teachers learn how to use psychology to improve all aspects of instruction.
Class time: 50% lecture, 50% discussion

Work load: 75 pages of reading per week
Grade: 33% mid-semester exam(s), 33% final exam, 33% special projects
Exam format: Multiple choice

EPsy 3132 Psychology of Multiculturalism in Education

(Sec 001); A-F only; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: Maruyama, Geoffrey M
The Psychology of Multiculturalism in Education creates an engaging context in which participants study the propagation of prejudice in social and educational settings and, at the same time, develop insights into the personal nature of prejudice and how and why prejudice occurs. Many participants say that everyone should take this course. Experiential format. Includes a hands-on 30-hour service-learning component that allows participants the opportunity to reflect on how they, as multicultural individuals, should and would respond in positive and sensitive ways to issues of diversity. Great class! No prerequisite.
Class time: 25% lecture, 25% discussion, 25% group activities; 25% videos
Work load: 50 pages of reading per week, 3 exams, 5 papers, bumper sticker-type summaries of short articles
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 25% special projects
Exam format: multiple choice with group work
Course URL: webct3.umn.edu/

EPsy 5101 Intelligence and Creativity

(Sec 001); A-F only; 3 cr
Instructor: Bart, William M
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. The primary readings for the course will be the following excellent paperback texts: (a) "IQ and Human Intelligence", written by N. J. Mackintosh (1998) and (b) "Handbook of Creativity", edited by R. J. Sternberg (1999). This course will emphasize writing in the evaluation of student performance. Students will be expected to complete midterm and final examinations which will be composed of short answer essay questions. Students will be informed prior to the examinations as to the essay questions to be used in the examinations. Each student will also be expected to complete a term paper on some topic associated with intelligence and/or creativity and to make a class presentation on that term paper.
Class time: 50% lecture, 20% discussion, 30% presentations
Work load: 30 pages of reading per week, 1 pages of writing per semester, 2 exams, 1 papers
Grade: 10% mid-semester exam(s), 20% final exam, 50% written reports/papers, 20% in-class presentations
Exam format: short essay

EPsy 5114 Psychology of Student Learning

(Sec 001); A-F only; 3 cr
Instructor: van den Broek, Paul Willem **!!Educ Distinguished Teaching Award!!**
This is a survey course, describing principles of educational psychology: how learning occurs, why it may fail, and implications for instruction. In the course, we will cover a broad array of topics relevant to learning and teaching, including models of learning, cognitive development, creativity, problem-solving, intelligence, character education, motivation, diversity, special populations, and testing. In addition to lectures, there will be class discussions, group activities, films, etc. The students in the class usually come from diverse backgrounds: advanced undergraduate students, graduate students in education but also in other areas, extension. Activities are aimed at taking advantage of these diverse backgrounds. Currently, we are using the textbook, "Educational Psychology," by Woolfolk. Course grade is based on two quizzes, a final examination, and a paper critique.
Class time: 60% lecture, 20% discussion, 20% film
Work load: 30-40 pages of reading per week, 5 pages of writing per semester, 1 exams, 1 papers, 2 quizzes
Grade: 40% final exam, 20% written reports/papers, 40% quizzes
Exam format: Combination multiple choice & essay
Course URL: WebCT

EPsy 5135 Human Relations Workshop

(Sec 001, 010); 4 cr
Instructor: Puncochar, Judith **!!UC Outstanding Teaching Award!!**
EPsy 5135 is an engaging course that addresses social issues of prejudice and discrimination, particularly in educational settings. This course frames issues related to racism, sexism, ageism, homophobia, handicappism, etc., in terms of history, power, and social perception across society, groups, and individuals. The perspective this course takes in addressing prejudice can be labelled as "cognitive"; it views prejudice as resulting from everyday cognitive processing of information and focuses on increasing participants awareness of how and why prejudices are developed. The course has a non-traditonal, multicultural framework that focuses on cooperative groupwork, small group theory, group skills. A series of videos and structured exercises compliment the lecture concepts and provide an opportunity for application of material from lectures, discussions, and readings. Participants include teachers, school nurses, graduate students, advanced undergraduates, police officers, managers, and others who desire more knowledge about the nature of bias. This course meets the Minnesota State Department of Education licensure requirement for Human Relations training.
Class time: 25% lecture, 25% discussion, 50% Workshop and groupwork
Work load: 100 pages of reading per week, 3 exams, 7 papers, papers are one-page each
Grade: 33.3% cooperative take-home exam; 33.3% in-class exam; and 33.3% final exam. All papers accepted.
Course URL: www.coled.umn.edu

EPsy 5152 Psychology of Conflict Resolution

(Sec 001); 3 cr
Instructor: Johnson, David W
Overview of field of conflict resolution. Major theories, research, major figures in the field, factors influencing quality of conflict resolution are covered. The nature of conflict, the history of field, and intrapersonal, interpersonal, intergroup conflict, negotiation, mediation are discussed.
Class time: 50% lecture, 50% discussion
Work load: 100 pages of reading per week, 40 pages of writing per semester, 1 exams, 2 papers, weekly journal
Grade: 30% final exam, 70% written reports/papers

EPsy 5200 Special Topics: Psychological Foundations: Social Influence in Education

(Sec 001); max crs 30; 30 repeats allowed; 3 cr
Instructor: Puncochar, Judith **!!UC Outstanding Teaching Award!!**
This course presents social influence concepts for participants who want to understand how to affect peopleÆs behavior, attitudes, thoughts, and/or feelings. Social psychological research and theory reveal factors that shape the extent to which social influence is successful, including individual differences in response to its presence. Topics include conformity, compliance, obedience, followership and leadership, attraction and liking, social perception of power, controversy, minority influence, behavior management, indirect and direct influence processes, and theories of cultural and social action. This course conveys contemporary and historical research from international contributors, who draw from Western and multicultural paradigms of social influence in areas such as education, immigration, politics, economics, law, and technology. Information on influence practices and principles will show how people can be influenced and how people can avoid manipulation. The course is experiential and demonstrates various pedagogic influence strategies. Prerequisite: One 3xxx course in the social sciences, or instructor consent.
Class time: 25% lecture, 25% discussion, 50% Videos, small group projects, classroom activities
Work load: 30-40 pages of reading per week, 3 exams, 12 one-page papers; one five-page research paper
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/papers, 20% special projects, 20% , take-home exam
Exam format: multiple choice, short answer
Course URL: webct3.umn.edu/

EPsy 5216 Introduction to Research in Educational Psychology

(Sec 001); A-F only; prereq—5261 or other intro statistics course; 3 cr
Instructor: Pellegrini, Anthony D
The course leads students through the basic steps in designing and conducting a research study. Topics include: reviewing the literature, different approaches to data collection, managing and analyzing data, and reporting results. Synthesizing Research: A Guide for Literature Reviews by Harris M. Cooper, 1998 Sage Publications, ISBN: 0761913483. Research Methods in Psychology 5TH by John J. J. Shaughnessy, Eugene B. Zechmeister, and Jeanne S. Zechmeister, 1999 McGraw-Hill Higher Education, ISBN: 0072312602. Observing Children in Their Natural Worlds: A Methodological Primer by Anthony D. Pellegrini, 1998 Lawrence Erlbaum Associates, Inc., ISBN: 080582152X.

Class time: 100% lecture
Work load: 50 pages of reading per week
Grade: 15% mid-semester exam(s), 15% final exam, 70% written reports/ papers
Exam format: multiple choice

EPsy 5221 Principles of Educational and Psychological Measurement
(Sec 001); prereq—5261 or equiv; 4 cr
Instructor: Rodriguez, Michael Clifford
Fundamental concepts, principles and methods in educational and psychological measurement. Specifically, the course will cover reliability, validity, item analysis, and score interpretation. Special attention will be given to the construction, interpretation, use, and evaluation of assessments regarding achievement, aptitude, interests, attitudes, personality and exceptionality.
Class time: 75% lecture, 20% discussion, 5% laboratory
Work load: 35 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, 3 memos
Grade: 25% mid-semester exam(s), 25% final exam, 50% written reports/ papers
Exam format: Multiple choice, essay.
Course URL: www.measurement.class.umn.edu/courses.html

EPsy 5231 Introductory Statistics and Measurement in Education
(Sec 001); prereq—credit will not be granted if credit received for: 5261, 5263; 4 cr
Instructor: Rodriguez, Michael Clifford
Students develop an understanding of basic statistics and measurement concepts and apply them to the collection, analysis, and interpretation of data. The course will cover descriptive and basic inferential statistics, as well as score reliability and validity, test construction and score interpretation.
Class time: 70% lecture, 20% discussion, 10% laboratory
Work load: 30 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers, occassional homework problems
Grade: 50% mid-semester exam(s), 33% written reports/papers, 17% problem solving
Exam format: Multiple choice, problem-solving computations.
Course URL: measurement.class.umn.edu/courses.htm

EPsy 5243 Principles and Methods of Evaluation
(Sec 001); Same as: EDPA 5501; 3 cr
Instructor: King, Jean Anne
This is an introductory course in designing program evaluations. Topics include: how to frame an evaluation study; examine a program's context; select appropriate methodology; and remain attentive to issues of diversity and multiple audiences. The course will also teach students survey and observation skills.
Class time: 30% lecture, 70% discussion
Work load: 60 pages of reading per week, 30 pages of writing per semester, 2 exams, 4 papers
Grade: 15% mid-semester exam(s), 20% final exam, 55% written reports/ papers, 10% class participation
Exam format: Midterm: short answer and essay.....Final: take home (essay).

EPsy 5261 Introductory Statistical Methods
(Sec 001, 002, 004); prereq—credit will not be granted if credit received for: 5231, 5263; 3 cr
Instructor: Garfield, Joan B **!!Morse Alumni Award!!**
This course provides an introduction to statistics with an emphasis on understanding and applying statistical concepts and procedures. Topics include visual and quantitative methods for presenting and analyzing univariate and bivariate data, and an introduction to inferential techniques (1 & 2 sample t-tests and confidence intervals). Relationships between variables are studied using correlation, simple regression, and chi-square analyses. This is a course for masters' level students who have never studied statistics and need to learn basic terms and methods. The textbook used is "The Basic Practice of Statistics" by David Moore. Classes will meet in computer labs once or twice a week. Students will use ActivStats, a multimedia CD ROM that includes the "Data Desk" software program. An inexpensive calculator may be used in class and on all quizzes. Although no prereqs are listed for this course, it is assumed that all students have had at least 1 year of basic HS algebra. The math content of this course involves simple algebraic formulas, exponents, square roots, signed numbers, and formulas for graphing a line (e.g; y=mx=b). Students will complete a project where they collect and analyze data and write up the reports in a report.
Class time: 30% discussion, 40% laboratory, 30% activities
Work load: 20 pages of reading per week, 10 pages of writing per semester, 4 exams, 2 papers
Grade: 30% special projects, 40% quizzes, 20% problem solving, 10% , article critiques
Exam format: a mix of formats
Course URL: edpsy.coled.umn.edu/programs/Psych-F/methodology/

EPsy 5281 Introduction to Computer Operations and Data Analysis in Education and Related Fields
(Sec 001); S-N only; 3 cr
Instructor: Davenport, Ernest C
EPsy 5281 in an introduction to statistical computing. Students learn to download data from the world-wide-web and to analyze that data with both EXCEL and SPSS. The course is taught in a computer laboratory and most of the time is given to hands-on activities. Lectures, consisting of 45% of the class, are a mixture of instruction, demonstrations, and explanations. The bulk of the class time, 55%, consists of hands-on acitivity. During this time students complete project assignments with the assistance of the course instructor. There is approximately one computer assignment due each week. These assignments are typically completed during the hands-on activity time built into the class. Students are evaluated based on their performance on these assignments. For this evaluation students meet individually with the instructor on a regular basis to present and interpret their results.
Class time: 45% lecture, 55% laboratory
Work load: 30 pages of reading per week, one small computer project per week
Grade: 100% special projects

EPsy 5401 Counseling Procedures
(Sec 001); prereq—Upper div student; 3 cr
Instructor: Goh, Michael Pik-Bien
This course is designed as an introduction to the theory and practice of counseling. It is intended for students who have little or no training in counseling or psychology but who may need to use counseling skills in a professional capacity. The course also serves as a general overview for those who may be considering the counseling profession as a career. This course progresses from a general understanding of the helping profession and theories of counseling to a more personal aspect of counseling skill development, and practice. Instructional methods will include lecture, small group interaction, discussion, videos, and role-plays. The course and assignments provides opportunities for the student to practice his/her skills, to self-evaluate, receive initial feedback, and to reflect on a personalized approach to counseling.
Class time: 30% lecture, 40% discussion, 30% role play
Work load: 20 pages of reading per week, 0 exams, 2 papers, 1 groupwork
Grade: 80% written reports/papers, 20% class participation

EPsy 5616 Behavior Analysis and Classroom Management
(Sec 001); 3 cr
Instructor: McComas, Jennifer
This course covers the assumptions, principles and procedures involved in a behavior analytic approach to classroom management. Emphasis is placed on specifying problems, conducting observations, analyzing data, developing interventions and evaluating behavioral change across settings. This course is well-suited to master's and doctoral students in education and related fields.
Class time: 70% lecture, 30% discussion
Work load: 75-100 pages of reading per week, 20 pages of writing per semester, 2-3 exams, 1-2 papers
Exam format: multiple choice & essay
Course URL: education.umn.edu/tel

EPsy 5624 Biomedical and Physical Aspects of Developmental Disabilities
(Sec 001); max crs 3; A-F only; 2 cr
Instructor: Azar, Judith Larson
Through use of videos, lectures, student reports and guest speakers, this course will provide a general over-view of various physical and health impairments affecting the school-aged population. What happens to cause different conditions or syndromes will be explored by reviewing genetics, gestational development, and nervous system. Intervention and management of disabilities will be explored by discussion of medical tests and procedures, pediatric pharmacology, role of nurses and therapists in the educational setting. The social/emotional issues and family issues surrounding a disability will be discussed.
Class time: 80% lecture, 10% discussion, 10% student reports
Work load: 40-50 pages of reading per week, 15 pages of writing per semester, 0 exams, 2 papers
Grade: 25% written reports/papers, 25% in-class presentations, 25% class participation, 25% , visit to community site

EPsy 5656 Social and Interpersonal Characteristics of Students with Disabilities
(Sec 001, 002); A-F only; 3 cr
Instructor: STAFF
The focus of this course is on the critical analysis of conceptual and practical issues regarding special education and students with emotional and behavioral disorders.
Class time: 30% lecture, 20% discussion, 50% Small group activites
Work load: 50 -60 pages of reading per week, 30—40 pages of writing per semester, 2 papers
Grade: 50% written reports/papers, 30% quizzes, 5% in-class presentations, 15% class participation

EPsy 5851 Collaborative Family-School Relationships
(Sec 001); max crs 3; prereq—Honors senior or grad student; 3 cr
Instructor: Christenson, Sandra L.
The theoretical and empirical bases for creating collaborative family-school-community relationships to enhance students' school success and development are described. Essential partnership variables to create a collaborative ethic between home, school, and community, and models/programs for grades K-12 are described. Specific strategies to address academic, social, and behavioral concerns for individual students as well as systems-level concerns, such as discipline and violence, are covered. Practical family-school partnership strategies for use by educational personnel (teachers, school psychologists, counselors, and administrators) to engage all families in school and learning are emphasized. This course addresses the National Educational Goal 8 and one of ten domains for competence as a school psychologist as specified in the "Blueprint". Additionally, the importance of local and national policy for establishing a shared responsibility between families and schools for students is emphasized. Promising strategies emphasize restructuring education to establish policies and practices based on a shared responsibility for educational outcomes. Course readings and assignments emphasize practical application of course content (i.e., the translation of theory and research into practice) and both are used to structure class discussion. Course format includes lecture and seminar discussion.
Class time: 40% lecture, 40% discussion, 20% Class presentations.
Work load: 50-75 pages of reading per week, 1 papers, 1 intervention plan.
Grade: 20% written reports/papers, 60% special projects, 20% class participation

Electrical and Computer Engineering

4-178 EE CSci Building; 612-625-3300

EE 0361 Introduction to Microcontrollers: Discussion
(Sec 001, 002); S-N only; prereq—concurrent registration in 2361; 0 cr
Instructor: Posbergh, Thomas Alfred
Student may contact the instructor or department for information.

EE 1301 Introduction to Computing Systems
(Sec 001); prereq—High school algebra; 4 cr
Instructor: Lilja, David J
Most introductory computer science course focus on high-level language programming. They typically take an "information hiding" approach that abstracts away all of the interesting details of the underlying computer system. While this type of abstraction can be a very useful technique for enhancing productivity, it is most helpful after a student understands the fundemental concepts of a computing system, such a data representation, the operation of memory, and so forth. Without this fundamental knowledge, the information hiding approach actually inhibits understanding. Students are too often left wondering how everything fits together which leads to rote memorization instead of real comprehension. In contrast to this highly abstract, top-down approach, this course presents a bottom-up view that addresses a broad foundation of topics in computing systems. This more concrete view helps remove the mystery about how a computer actually works by trying every new concept to a continually developing foundation. As a result, nothing in the computer system appears to happen as if by magic. This course will introduce the fundamental concepts of computing systems, from the machine level to high level language programming, including transistors and logic circuits, memory and pointer addressing, binary arithmetic and data representation, data types and structures, and assembly language and C programming.
Class time: 50% lecture, 50% discussion
Work load: 30 pages of reading per week, 3-4 exams, 8-12 programming and homework assignments.and Sanjay J. Patel, McGraw-Hill, 1999.
Grade: Grades will be determined using exams and programming and homework assignments. Exact percentage hav
Exam format: Problem solving
Course URL: www.artic.umn.edu/~lilja/ee1301

EE 1701W Energy, Environment, and Society
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Imbertson, Paul Jay
There is hardly any aspect of our society that is not fundamentally influenced by our use and misuse of energy. This fact will become clear to students taking EE 1701 as we take an eclectic approach to the study of energy. This course is at times a history class, at times a science class, at times an engineering class, and at times a critical examination of energy in the news. This course is open to all students, and is intended to be a common ground for students with differing backgrounds and interests, giving them an open forum for discussion of all viewpoints on the important topic of energy. Class time consists of lecture and group discussion. The bulk of the student's work will be on a research paper on a topic of their choosing. These are individual papers, but students will have the support of a small group of students working on similar topics.

EE 2001 Introduction to Electronic and Electrical Circuits
(Sec 001); Credit will not be granted if credit has been received for: EE 2101, EE 2101, EE 2101; prereq—Phys 1302, concurrent enrollment is required in Math 2243, 2373, 2573; 3 cr
Instructor: Ruden, P Paul
Physical principles of circuit models; two- and three-terminal resistive elements; Kirchoff's laws; independent and dependent sources; operational amplifiers; small signal models for BJTs and FETs; elementary amplifiers; linearity in circuits; first and second order circuits.
Class time: 75% lecture, 25% discussion, 12 homework assignments
Work load: 50 pages of reading per week, 3 exams
Grade: 30% mid-semester exam(s), 40% final exam, 10% quizzes, 20% problem solving
Exam format: Problems

EE 2002 Introductory Circuits and Electronics Laboratory
(Sec 001-011, 030, 031); prereq—2001 or concurrent enrollment in 2001; 1 cr
Instructor: Robbins, William P
Introductory lab in electronics to accompany 2001. Experiments with simple sirsuits. Familiarization with basic measurement tools and equiptment.

EE 2011 Linear Systems and Circuits
(Sec 001); Credit will not be granted if credit has been received for: EE 2103, EE 2103; prereq—2001; 3 cr
Instructor: Allen, Gale R
Elements of signals and linear system analysis. Time-domain modeling of linear systems by differential equations. Laplace and Fourier domain modeling and analysis High frequency modeling of diodes and transistors and frequency response of amplifiers. Design of electronic filters. Course Objectives: This course builds upon the first course in electric circuits. Upon completion of the course, the student should have a thorough understanding of the fundamentals of circuit analysis in the sinusoidal steady state, as well as an understanding of the foundations of systems analysis using the Laplace transform and design with bipolar and MOS transistors. Students completing this course should have acquired the basics skills necessary to design circuits at the sub-circuit level and combine these sub-circuits into more complicated systems. Course Outcomes: 1. The ability to analyze circuits in the sinusoidal steady state using phasors. 2. The ability to analyze and design small-scale transistor amplifiers using both large signal and small signal concepts. 3. The ability to use Laplace Transform techniques to create system-level circuit descriptions in order to do time-domain and frequency domain analysis of circuits.
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week, 3 exams
Grade: 40% final exam, 20% problem solving, 40% , 2 mid-semester exams, 20% each
Exam format: Problems
Course URL: www.ece.umn.edu/class/ee2011

EE 2301 Introduction to Digital System Design
(Sec 001); prereq—Math [1272 or 1372 or 1572], concurrent registration in 0301; 4 cr
Instructor: Kinney, Larry L
Boolean algebra, logic gates, combinational logic simplification, sequential logic, design of synchronous sequential logic, VHDL modeling, design of logic circuits, Integral lab.

EE 3006 Fundamentals of Electrical Engineering Laboratory
(Sec 001-013); prereq—concurrent enrollment in 3005; 1 cr
Instructor: Robbins, William P
Lab to accompany 3005.

EE 3101 Circuits and Electronics Laboratory I
(Sec 001-009); prereq—[3115 or concurrent enrollment 3115], 2002; 2 cr
Instructor: Robbins, William P
Experiments in circuits and electronics.

EE 3102 Circuits and Electronics Laboratory II
(Sec 001-006); prereq—3101; 2 cr
Instructor: Robbins, William P
Experiments in circuits and electronics; team design project.

EE 4231 Linear Control Systems: Designed by Input/Output Methods
(Sec 001); prereq—[3015, [upper div IT or grad student in IT major]] or instr consent; no [EE or CompE] grad cr; 3 cr
Instructor: Georgiou, Tryphon T
Modeling, characteristics, and performance of feedback control systems. Stability, root locus, and frequency response methods. Digital implemetnation, hardware considerations.

EE 4235 Linear Control Systems Laboratory
(Sec 001); prereq—4231 or concurrent enrollment 4231; no EE or CompE grad cr; 1 cr
Instructor: Georgiou, Tryphon T
Lab to accompany 4231

EE 4541 Digital Signal Processing
(Sec 001); prereq—[3015, 3025] or instr consent; 3 cr
Instructor: Ebbini, Emad S
Review of linear discrete time systems and sampled and digital signals; Fourier analysis, discrete and fast Fourier transforms; interpolation and decimation; design of analog, infinite-impulse response and finite impulse response filters; quantization effects.

EE 4701 Electric Drives
(Sec 001); max crs 4; prereq—3015; 3 cr
Instructor: Imbertson, Paul Jay
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 4721 Introduction to Power System Analysis
(Sec 001); prereq—2011; 4 cr
Instructor: Wollenberg, Bruce F
AC power systems; analysis of large power system networks; mathematics and techniques of power flow analysis, short circuit analysis, and transient stability analysis; use of a power system simulation program for design. Integral lab.

EE 4741 Power Electronics
(Sec 001); max crs 4; prereq—3015, 3115; 3 cr
Instructor: Mohan, Ned **!!Oscar A Schott Prof Power Elec!!**
Switch-mode power electronics; switch-mode DC power supplies; switch-mode converters for DC and AC motor drives, wind/photovoltaic inverters, interfacing power electronics equipment with utility system; power semiconductor devices, magnetic design, electro-magnetic interference (EMI). Integral lab.

EE 4970 Directed Study
(Sec 001); max crs 3; prereq—Cr ar [may be repeated for cr]; dept consent; 1-3 cr
Instructor: STAFF
Studies of approved projects, either theoretical or experimental.

EE 4981H Senior Honors Project I
(Sec 001); prereq—ECE honors, sr, instr consent; meets HON req of Honors; 2 cr
Instructor: Kaveh, Mostafa
Design project for students in ECE honors program
Class time: 5% lecture, 95% independent research and development projects
Work load: 25 pages of reading per week, 2 exams, 1 oral presentation
Grade: 30% written reports/papers, 50% special projects, 20% in-class presentations
Course URL: www.ece.umn.edu/class.html

EE 5163 Semiconductor Properties and Devices I
(Sec 001); prereq—3161, 3601 or instr consent; 3 cr
Instructor: STAFF
Principles and properties of semiconductor devices. Selected topics in semiconductor materials, statistics, and transport. Aspects of transport in p-n junctions, heterojunctions.

EE 5171 Microelectronic Fabrication
(Sec 001); prereq—IT sr or grad; 4 cr
Instructor: STAFF
Fabrication of microelectronic devices; silicon integrated circuits, GaAs devices; lithography, oxidation, diffusion; process integration of various technologies, including CMOS, double poly bipolar, and GaAs MESFET.

EE 5173 Basic Microelectronics Laboratory
(Sec 001-004); prereq—5171 or concurrent enrollment in 5171; 1 cr
Instructor: STAFF
Students fabricate a polysilicon gate, single-layer metal, NMOS chip, performing 80 percent of processing, including photolithography, diffusion, oxidation, etching. In-process measurement results are compared with final electrical test results. Simple circuits are used to estimate technology performance.

EE 5231 Linear Systems and Optimal Control
(Sec 001); prereq—IT grad, 3015 or instr consent; 3 cr
Instructor: STAFF
Properties and modeling of linear systems; linear quadratic and linear-quadratic-Gaussian regulators; maximum principle.

EE 5301 VLSI Design Automation I
(Sec 001, 885); prereq—2301 or instr consent; 3 cr
Instructor: Bazargan, Kia
Class Description: Basic graph/numerical algorithms. VLSI Computer Aided Design algorithms (CAD), mostly physical design (partitioning, floorplanning, placement, and routing. Algorithms for high-level synthesis. Programming in C/C++ is a requirement.
Class time: 80% lecture, 20% of the lecture time spent in class discussions
Work load: 15 pages of reading per week, 2 exams, 10 papers, A lot of programming assignments
Grade: 25% mid-semester exam(s), 25% final exam, 10% quizzes, 40% problem solving, A significant portion of homework is programming assignments.
Exam format: open book
Course URL: www.ece.umn.edu/users/kia/Courses/EE5301

EE 5323 VLSI Design I
(Sec 001); prereq—[2301, 3115] or instr consent; 3 cr
Instructor: STAFF
Combinational and sequential circuits; CMOS process flows, design rules, structured layout techniques; dynamic CMOS, domino, DCVS; CMOS arithmetic logic units, high-speed carry chains, fast CMOS multipliers.

EE 5333 Analog Integrated Circuit Design
(Sec 001); prereq—[3115, grad student] or instr consent; 3 cr
Instructor: STAFF
Fundamental circuits for analog signal processing. Design issues associated with MOS/BJT devices. Design/testing of circuits. Selected topics(e.g., modeling of basic IC componets, design of operational amplifier or comparator or analog sampled-data circuit.

EE 5501 Digital Communication
(Sec 001); prereq—4501, 3025, sr or grad in IT major or instr consent; 3 cr
Instructor: Giannakis, Georgios B
Student may contact the instructor or department for information.
Class time: 5% lecture, 95% cctv
Work load: 35 pages of reading per week, 100 pages of writing per semester, 2 exams, 1 papers
Grade: 35% mid-semester exam(s), 45% final exam, 10% special projects, 10% problem solving, homework
Exam format: problem solving
Course URL: www.ece.umn.edu/groups/ece5501

EE 5549 Digital Signal Processing Structures for VLSI
(Sec 001); prereq—4541; 3 cr
Instructor: Parhi, Keshab K.
Pipelining; parallel processing; fast convolution; FIR; rank-order, IIR, lattice, adaptive digital filters; scaling and roundoff noise; DCT; Viterbi coders; lossless coders, video compression.

EE 5581 Information Theory and Coding
(Sec 001); prereq—5531 or instr consent; 3 cr
Instructor: Kieffer, John C
Student may contact the instructor or department for information.

EE 5629 Optical System Design
(Sec 001); prereq—IT sr or grad; 2 cr
Instructor: Nussbaum, Allen
Elementary or paraxial optics. Non-paraxial, exact ray tracing. Energy considerations in instrument design. Fourier optics and image quality. Design examples: telescopes, microscopes, diffraction-limited lenses,

projectors, and scientific instruments. Text is "Optical System Design", Allen Nussbaum: Prentice-Hall. (1988) which is based on the course notes as modified during 25 years of teaching. Extensive use is made of computer programming as a way of simplifying the complicated theory found in older texts.
Class time: 90% lecture, 10% Practical experience with a commercial software program
Work load: 10 pages of reading per week, 1 exams, 1 papers, 1 homework problem assignment per week
Grade: 25% mid-semester exam(s), 50% special projects, 25% problem solving, Final design project
Exam format: Midterm: in class, open notes. No final exam

EE 5653 Physical Principles of Magnetic Materials
(Sec 001); prereq—[3281 or equiv], [upper div ME or AEM or CSci or grad student]; 3 cr
Instructor: Victora, Randall H
Physics of para-magnetism, ferro-magnetism, antiferro-magnetism, ferri-magnetism, and associated ferromagnetic phenomena; static and dynamic theory of micromagnetics, magneto-optics, magnetization dynamics and magnetic material applications. Target audience is graduate students in a variety of fields, including electrical engineering, physics and materials science.
Class time: 100% lecture
Work load: 30 pages of reading per week, 8 pages of writing per semester, 2 exams, 1 papers, 12 problem sets
Grade: 15% mid-semester exam(s), 30% final exam, 15% written reports/papers, 40% problem solving
Exam format: Problem solution
Course URL: www.ece.umn.edu

EE 5657 Physical Principles of Thin Film Technology
(Sec 001); prereq—IT sr or grad student or instr consent; 4 cr
Instructor: Stadler, Beth
This course teaches the fundamentals of thin film technology, including film fabrication techniques, characterization and processing/properties/performance relationships. This course is intended for seniors and graduate students. The understanding provided in this class will form a basis for students to understand their research in a variety of areas. The course is inherently interdisciplinary and examples from many research areas are provided to put the concepts into perspective. A 2 hour laboratory is required for students to get hands-on experience in the topics learned. The lab also demonstrates the class concepts through a team competition, in which teams try to make a simple, common device (specific device varies each year).
Class time: 60% lecture, 40% laboratory
Course URL: www.tc.umn.edu/~stadl002EE_5657/ee_5657

EE 5811 Biomedical Instrumentation
(Sec 001); prereq—IT sr or life-science sr or grad student; 3 cr
Instructor: Holte, James Edward
Biological signal sources. Electrodes, microelectrodes, other transducers. Characteristics of amplifiers. Noise in biological signals. Filtering, recording, display. Protection of patients from electrical hazards. Experiments in neural/muscle stimulation, EKG/EMG recording, neuron simulation, filtering, and low-noise amplifiers.

EE 5950 Special Topics in Electrical Engineering II
(Sec 001); max crs 4; 1-3 cr
Instructor: STAFF
Special topics in electrical and computer engineering. Topics vary.

EE 5960 Special Topics in Electrical Engineering III
(Sec 001); max crs 4; 3 cr
Instructor: STAFF
Special topics in electrical and computer engineering. Topics vary.

Emergency Health Services
101 Wesbrook Hall; 612-624-4000

EHS 4999 Practicum
(Sec 001-005); A-F only; prereq—EHS; 3 cr
Instructor: STAFF
Project in student's employing organization or project in organization providing internship or integration of projects from previous coursework or development of program-related project.

EHS 5031 Basic principles of research in emergency health services.
(Sec 001); A-F only; 3 cr
Instructor: STAFF
Basic principles of research in emergency health services.

English as a Second Language
315 Nolte Ctr; 612-624-1503

ESL 0010 TOEFL Preparation
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Describes the format of the TOEFL test. Focuses on strategies for improving skills for each section of the test.
Class time: 25% lecture, 30% discussion, 20% laboratory, 25% practice tests
Work load: 10 pages of reading per week, 4 exams, Homework exercises
Grade: 20% written reports/papers, 30% quizzes, 50% class participation
Exam format: Variety of formats including, multiple choice & short answer essay.

ESL 0111 Beginning Grammar
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
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.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 5 pages of reading per week, Four quizzes, homework exercises
Grade: 25% quizzes, 10% class participation, 10% lab work, 55% , Homework, classwork
Exam format: Short answer

ESL 0121 Beginning Reading/Composition
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
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.
Class time: 10% lecture, 50% discussion, 40% Conferencing with instructor, class work
Work load: 5 pages of reading per week, 5 pages of writing per semester, 2 papers
Grade: 50% written reports/papers, 10% special projects, 10% quizzes, 10% class participation, 15% lab work
Exam format: Short answer

ESL 0193 Pronunciation
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Addresses important aspects of English pronunciation necessary to improve comprehensibility and reduce foreign accents. Includes work on enunciation, word phrasal, and sentence stress; intonation, linking, thought groups and rhythm.
Class time: 10% lecture, 50% discussion, 25% laboratory, 15% Tutorial time
Work load: 10 pages of reading per week, 2 exams
Grade: 25% special projects, 25% quizzes, 25% in-class presentations, 25% class participation
Exam format: variety

ESL 0211 High Beginning Grammar
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students review and add to skills with basic structures. The course focuses on increasingly complex structures with attention to form, meaning and use. Students practice structures in controlled speaking and writing activities.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 5 pages of reading per week, Four quizzes; homework exercises

Grade: 25% quizzes, 10% class participation, 10% lab work, 55% , Homework, classwork
Exam format: Short answer

ESL 0221 High Beginning Reading/Composition
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students read longer passages of limited difficulty with increased speed, focusing on mian ideas, vocabulary development, reading speed, and skimming and scanning skills. Writing focuses on fundamentals, spelling, punctuation, paragraphing, and organization. Writing exercises and free writing are used.
Class time: 10% lecture, 50% discussion, 40% Conferencing with instructor, classwork
Work load: 6 pages of reading per week, 6 pages of writing per semester, 2 papers
Grade: 50% written reports/papers, 10% special projects, 10% quizzes, 10% class participation, 15% lab work
Exam format: Variety

ESL 0231 High Beginning Oral Skills
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
This course stresses the ability to communicate in English in everyday situations. Emphasis is on listening and speaking and increasing vocabulary and fluency in spoken English.
Class time: 10% lecture, 75% discussion, 15% laboratory
Work load: 2 pages of reading per week, 3 pages of writing per semester, 2 exams, Homework
Grade: 25% special projects, 15% quizzes, 25% in-class presentations, 25% class participation, 10% lab work
Exam format: Short answers

ESL 0311 Low Intermediate Grammar
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students review and add to skills with basic structures. The course emphasizes increasingly complex structures with attention to form, meaning and use; structures are practiced in controlled speaking and writing situations.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 5 pages of reading per week, Five quizzes; homework exercises
Grade: 25% quizzes, 10% class participation, 10% lab work, 55% , Homework, classwork
Exam format: Short answer

ESL 0321 Low Intermediate Reading/Composition
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students read for main ideas and supporting ideas with increased speed; vocabulary development, word formation, use of dictionary, spelling, punctuation, and paragraphing, as well as organization and writing as a process, are emphasized.
Class time: 10% lecture, 45% discussion, 5% laboratory, 40% Small-group work on readings and writing
Work load: 8 pages of reading per week, 8 pages of writing per semester, 2 papers
Grade: 50% written reports/papers, 10% special projects, 10% quizzes, 15% class participation, 10% lab work
Exam format: Variety

ESL 0331 Low Intermediate Oral Skills
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students practice speaking in sturctured and semi-structured situations with special attention to basic regularities in pronunciation.
Class time: 10% lecture, 75% discussion, 15% laboratory
Work load: 3 pages of reading per week, 3 pages of writing per semester, 2 exams, Homework
Grade: 25% special projects, 15% quizzes, 25% in-class presentations, 25% class participation, 10% lab work
Exam format: Short answers

ESL 0411 Intermediate Grammar
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative prereqeaker of English; see Minnesota English Center for override.; 0 cr
Instructor: STAFF
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.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 8 pages of reading per week, 1 exams, Six quizzes; homework exercises
Grade: 30% quizzes, 15% class participation, 10% lab work, 45% , Homework, classwork
Exam format: Short answer

ESL 0421 Intermediate Reading/Composition
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
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. Wrrting includes fundamentals, organization, and writing as a process.
Class time: 15% lecture, 45% discussion, 10% laboratory, 30% Small group work
Work load: 15 pages of reading per week, 12 pages of writing per semester, 2 papers
Grade: 50% written reports/papers, 10% special projects, 10% quizzes, 15% class participation, 10% lab work
Exam format: Variety

ESL 0431 Intermediate Oral Skills
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
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.
Class time: 20% lecture, 65% discussion, 15% laboratory
Work load: 4 pages of reading per week, 4 pages of writing per semester, 2 exams, Homework
Grade: 25% special projects, 15% quizzes, 25% in-class presentations, 25% class participation, 10% lab work
Exam format: Short answers

ESL 0511 High Intermediate Grammar
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students review and add to their repertoire of structures with attention to meaning, use and form; emphasis is on use of verb phrases and control of grammar in writing.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 8 pages of reading per week, 1 exams, Six quizzes; homework exercises
Grade: 30% quizzes, 15% class participation, 10% lab work, 45% , Homework, classwork
Exam format: Short answers

ESL 0521 High Intermediate Reading/Composition
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Prerequisite: Nonnative English prereqeaker. See Minnesota English Center for override.; 0 cr
Instructor: STAFF
Students read unadapted, as well as adapted, passages. This course focuses on efficiency, vocabulary, drawing inferences, identifying point of view, using knowledge of organization to aid understanding, and the writing process. Students complete academic-style assignments.
Class time: 15% lecture, 45% discussion, 10% laboratory, 30% Small group work
Work load: 25 pages of reading per week, 25 pages of writing per semester, 2 papers
Grade: 50% written reports/papers, 10% special projects, 10% quizzes, 15% class participation, 10% lab work
Exam format: Variety

ESL 0531 High Intermediate Oral Skills
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students focus on developing fluency and accuracy in everyday situations and in academic situations; special attention is given to communication strategies. This course prepares students for academic lectures by introducing standard forms of organization and note-taking skills. Students also work on understanding natural conversational speech using a variety of authentic materials.
Class time: 25% lecture, 70% discussion, 5% laboratory
Work load: 5 pages of reading per week, 4 pages of writing per semester, 2 exams
Grade: 25% special projects, 15% quizzes, 25% in-class presentations, 30% class participation, 5% lab work
Exam format: Various formats

ESL 0611 Advanced Grammar
(Sec 001, 002); max crs 4; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
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.
Class time: 20% lecture, 70% discussion, 10% laboratory
Work load: 5 pages of reading per week, 2 exams, Six quizzes, homework exercises
Grade: 20% final exam, 25% quizzes, 5% lab work, 50% , Homework
Exam format: Variety of formats.

ESL 0621 Advanced Reading Composition: The Written Word
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students focus on reading efficiency, including strategy development, as well as vocabulary skill building. Some focus is on using reading to support academic writing.
Class time: 25% lecture, 50% discussion, 25% In class work time, conferencing with instructor.
Work load: 35 pages of reading per week, 20 pages of writing per semester, 3 papers
Grade: 50% written reports/papers, 10% special projects, 15% quizzes, 25% class participation
Exam format: Multiple choice & essay

ESL 0641 Advanced Listening Comprehension
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
This course focuses on lecture comprehension with attention to note taking, recognizing main ideas and support, and determining the attitude of the speaker toward the subject; comprehension of complex information presented in nonlecture format, as in television documentaries is included.
Class time: 40% lecture, 40% discussion, 20% laboratory
Work load: 8 pages of reading per week, 3 exams
Grade: 25% special projects, 25% quizzes, 25% lab work, 25% problem solving
Exam format: Multiple choice, some fill in the blank, some short answer essay.

ESL 0651 Advanced Speaking/Pronunciation
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
This course emphasizes the use of spoken English in academic settings as well as in conversation. Pronunciation focuses on individual needs.
Class time: 10% lecture, 70% discussion, 20% laboratory
Work load: 8 pages of reading per week, 3 exams
Grade: 25% special projects, 25% quizzes, 25% in-class presentations, 25% class participation
Exam format: Various formats

ESL 0671 Advanced Composition
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students develop skills needed at every stage of the writing process, including finding a topic, determining the approach to the topic, planing and drafting a composition, revising, and editing. Students also learn to suit their writing to the audience and topic and to look at their own writing critically.
Class time: 25% lecture, 50% discussion, 25% In class writing, conferencing with the instructor.
Work load: 10 pages of reading per week, 20 pages of writing per semester, 3 papers
Grade: 65% written reports/papers, 10% quizzes, 20% class participation, 5% lab work
Exam format: The exams are the essay—some quizzes

ESL 0700 Topics in the Media
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Nonnative English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Current Issues: This course focuses on skills necessary to understand news media as a means of English improvement and as a source of information and entertainment. Course content is based on major international news events of the day, using radio broadcasts, the daily newspaper, and other news sources. Film: Through viewing and discussion of American movies and television, students improve their listening and speaking skills and deepen their understanding of American culture.
Class time: 15% lecture, 40% discussion, 15% laboratory, 30% Small-group work
Work load: 15 pages of reading per week, 15 pages of writing per semester, 2 exams, 0 papers
Grade: 10% mid-semester exam(s), 10% final exam, 25% special projects, 10% quizzes, 15% in-class presentations, 25% class participation, 5% lab work
Exam format: Variety

ESL 0711 Grammar Through Writing
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Non-native prereqeaker of English; see Minnesota English Center for override.; 0 cr
Instructor: STAFF
This course focuses on production of grammatically sophisticated structures in writing. Students edit their assignments.
Class time: 25% lecture, 65% discussion, 10% laboratory
Work load: 2 exams, 3 papers, Quizzes, homework exercises
Grade: 15% final exam, 25% written reports/papers, 25% quizzes, 35% , Homework
Exam format: Variety

ESL 0712 Grammar Through Writing
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Non-native prereqeaker of English; see Minnesota English Center for override ; 0 cr
Instructor: STAFF
This course focuses on production of gramatically sophisticated structures in writing. Students edit their assignments.
Class time: 25% lecture, 65% discussion, 10% laboratory
Work load: 2 exams, 3 papers, Homework exercises, quizzes
Grade: 15% final exam, 25% written reports/papers, 25% quizzes, 35% , homework

ESL 0721 High Advanced Reading/Composition
(Sec 001, 002); max crs 16; 4 repeats allowed; S-N only; prereq—Non-native prereqeaker of English; see Minnesota English Center for override.; 0 cr
Instructor: STAFF
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.
Class time: 25% lecture, 50% discussion, 25% In-class writings, conferencing with the instructor
Work load: 40 pages of reading per week, 20 pages of writing per semester, 3 papers
Grade: 60% written reports/papers, 20% quizzes, 20% class participation
Exam format: Variety

ESL 0741 High Advanced Listening Comprehension
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Non-native prereqeaker of English; see Minnesota English Center for override; 0 cr
Instructor: STAFF
This course focuses on lecture comprehension with special attention to note-taking, recognizing main ideas and support, understanding relationship of ideas, implied information, and structure of speech. A wide variety of authentic materiels are used to practice comprehension of information.
Class time: 40% lecture, 40% discussion, 20% laboratory
Work load: 8 pages of reading per week, 3 exams

Grade: 25% special projects, 25% quizzes, 25% class participation, 25% lab work
Exam format: Variety

ESL 0751 High Advanced Speaking/Pronunciation
(Sec 001); max crs 8; 4 repeats allowed; S-N only; prereq—Non-native English prereqeaker; see Minnesota English Center for override; 0 cr
Instructor: STAFF
This course emphasizes use of spoken English in academic settings, including presentation skills and discussion skills; pronunciation focuses on individual needs of students.
Class time: 10% lecture, 70% discussion, 20% laboratory
Work load: 8 pages of reading per week, 3 papers
Grade: 25% special projects, 25% quizzes, 25% in-class presentations, 25% class participation
Exam format: Variety

ESL 0771 High Advanced Composition
(Sec 001, 002); max crs 8; 4 repeats allowed; S-N only; prereq—Non-native prereqeaker of English; see Minnesota English Center for override; 0 cr
Instructor: STAFF
Students learn to refine skills needed in the writing process and their use of complex grammatical structures. Students conduct research to support their writing.
Class time: 25% lecture, 50% discussion, 25%
Work load: 8 pages of reading per week, 20 pages of writing per semester, 3 papers
Grade: 70% written reports/papers, 5% quizzes, 20% class participation, 5% lab work
Exam format: Variety

ESL 0911 Fundamentals in English as a Second Language
(Sec 001); max crs 12; 3 repeats allowed; S-N only; prereq—Dept consent, satisfactory score on [EPT or MNBatt or TOEFL]; 0 cr
Instructor: STAFF
A low-intermediate course designed to give non-native speakers the basic knowledge and skills needed for daily communication in spoken English; grammatical structures are explained with reference to their uses in social situations; instruction is also provided in pronunciation.
Class time: 15% lecture, 25% discussion, 15% laboratory, 45% Small-group work
Work load: 5 pages of reading per week, 5 pages of writing per semester, 5 exams, 0 papers
Grade: 15% mid-semester exam(s), 15% final exam, 15% special projects, 15% quizzes, 25% class participation, 15% lab work
Exam format: Variety

ESL 0931 Developing Fluency in English as a Second Language
(Sec 001); max crs 12; 3 repeats allowed; S-N only; prereq—Dept consent, satisfactory score on [EPT or MNBatt or TOEFL]; 0 cr
Instructor: STAFF
An advanced course for non-native speakers who want to improve their communication skills for social, academic and professional purposes; emphasis is on listening and speaking; content is drawn from the mass media.
Class time: 25% lecture, 45% discussion, 30% Small group work
Work load: 5 pages of reading per week, 5 pages of writing per semester, 2 exams
Grade: 10% mid-semester exam(s), 10% final exam, 25% special projects, 25% in-class presentations, 25% class participation, 5% lab work
Exam format: Variety

English: Creative and Professional Writing

209 Lind Hall; 612-625-6366

EngW 1101W Introduction to Creative Writing
(Sec 001); meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Fitzgerald, Maria J
Introduction to writing, poetry, fiction, and literary nonfiction. If you want to be a writer, this is the place to start. If you're not sure creative writing is a vocation for you, but want to improve your writing skills, become a sharper reader, and understand the creative process better, this course is also for you. The class will focus on students' individual writing through in-class writing exercises, take-home assignments, and small group workshopping of students' work. There is also a series of weekly lectures by local writers in which they discuss the creative process. Some of the topics they will address include: finding your material, creating characters, revision, writing from memory, and the creative imagination. Through a progression of exercises in creative writing, students will create a midterm portfolio of poetry and a final portfolio of creative prose (fiction and literary nonfiction). By discussing and critiquing assigned readings and one another's work, students will improve their critical reading abilities and learn to read as writers.
Class time: 50% lecture, 25% discussion, 25% writing workshop
Work load: 10 pages of writing per semester, 150 pages reading per semester

EngW 1102 Introduction to Fiction Writing
(Sec 001, 002); 3 cr
Instructor: STAFF
Beginning instruction in the writing of prose fiction, taught in a workshop format. Revisions of your work as well as comments on fellow students' work will be required. Texts are drawn from collections of contemporary fiction and essays on technique. Topics covered will include characterization, plot, dialogue, and style.

EngW 1103 Introduction to Poetry Writing
(Sec 001, 002); 3 cr
Instructor: STAFF
Beginning instruction in the art of poetry. Discussion of student poems and contemporary poetry, ideas for generating material, and writing exercises both in and out of class.

EngW 1104 Introduction to Literary Nonfiction Writing
(Sec 001); 3 cr
Instructor: STAFF
Essay? Memoir? Journalism? This course will explore different ways to approach writing nonfiction through readings and workshops of student writing. Students will be encouraged to experiment with literary essays, op-ed pieces and memoir. Readings may include Mary Karr, Mary McCarthy, Katha Pollitt, Tom Wolfe and others.

EngW 3102 Intermediate Fiction Writing
(Sec 001, 002); prereq—1101 or 1102 or dept consent; 3 cr
Instructor: STAFF
This intermediate-level course is for writers who have some previous experience in writing fiction. The course will focus on craft and stylistic techniques using writing exercises and readings from a range of authors writing novels, short stories, and other forms of prose. The individual workshop portion of the class will be devoted to developing individual student work, critiquing other students' work, and reading in front of an audience.

EngW 3104 Intermediate Poetry Writing
(Sec 001, 002); prereq—1101 or 1103 or dept consent; 3 cr
Instructor: STAFF
This intermediate level course is for writers who have some previous experience in writing poetry. The course will focus on craft and stylistic techniques using writing exercises and readings from a range of poets writing in different forms. The workshop portion of the class will be devoted to developing individual student work, critiquing other students' work, and reading in front of an audience.

EngW 3106 Intermediate Literary Nonfiction Writing
(Sec 001); prereq—1104 or dept consent; 3 cr
Instructor: STAFF
This intermediate level course is for writers who have some previous experience in writing literary nonfiction. The course will focus on craft and stylistic techniques using writing exercises, and readings from a range of authors writing essays, memoir and other forms of literary non-fiction prose. The workshop portion of the class will be devoted to developing individual student work, critiquing other students' work, and reading in front of an audience.

EngW 3960W Writing Workshop for Majors: Fiction
(Sec 001); prereq—Engl major, 6 cr of EngW [including EngW 3xxx], [jr or sr], major adviser approval, writing portfolio, dept consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Schumacher, Julie
This advanced course in fiction is designed for students with a strong background in fiction writing and reading. One of our aims is to help students complete their final senior papers during the semester. We will be reading and critiquing work by students and work by published contemporary writers. Sessions will involve craft tutorials, literary discussions and manuscript assessment.

EngW 3960W Writing Workshop for Majors: Mixed Genre
(Sec 002); prereq—Engl major, 6 cr of EngW [including EngW 3xxx], [jr or sr], major adviser approval, writing portfolio, dept consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Browne, M D **!!CLA Distinguished Teaching Award!!**
This advanced course in poetry is designed for students with a strong background in poetry writing and reading. One of our aims is to help students complete their final senior papers during the semester. We will be reading and critiquing work by students and work by published contemporary writers. Sessions will involve craft tutorials, literary discussions and manuscript assessment.

EngW 5102 Advanced Fiction Writing
(Sec 001); max crs 8; prereq—dept consent; 4 cr
Instructor: STAFF
This workshop-based class is intended for graduate students and, with permission of the instructor, advanced undergraduates. Class time will be primarily devoted to discussion of students' prose, and to analysis of assigned works, which will consist mainly of contemporary short fiction.

EngW 5104 Advanced Poetry Writing
(Sec 001); max crs 8; prereq—dept consent; 4 cr
Instructor: Gonzalez, Ramon
This course will focus on writing and evaluating poems. The workshop setting will be an open forum for new and older work. We will discuss form and voice, influence and vision, and read several books by modern poets. Each student will be required to submit 25 pages of poetry by the end of the semester, along with a four-page statement of poetics about the work. The discussion of the books will concentrate on various styles and approaches to the contemporary poem.

EngW 5204 Playwriting
(Sec 001); max crs 8; prereq—dept consent; 4 cr
Instructor: STAFF
Writing the play is the process of discovering "story." By interviewing characters, listening for dialogue, visualizing scenes, and chasing plot, the writer finds story for the play. Creating structure is the playwright's chore of bringing that story to the stage. In this course we will seek out story by learning the basics of playwriting and structure (theme, characterization, dialogue, scene and plot development). Participants will also create their own work for the theatre through script analysis, writing exercises and critical discussions about their work with other class participants.

EngW 5205 Screenwriting
(Sec 001); prereq—dept consent; 4 cr
Instructor: STAFF
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, guests, 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 209 Lind Hall.

EngW 5993 Directed Study in Writing
(Sec 001, 002); max crs 18; 18 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
By arrangement with individual faculty. For more information, contact the Creative Writing Program at (612) 625-6366.

English: Literature
207 Lind Hall; 612-625-3363

EngL 1181W Introduction to Shakespeare
(Sec 001); Credit will not be granted if credit has been received for: ENGL 1181V, ENGL 1182; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Clayton, Tom **!!Morse Alumni Award; Regents' Award!!**
The script of "Shakespeare in Love" was one of playwright Tom Stoppard's gifts to the ages' dialogue with Shakespeare, whose writer's bloc is greatly exaggerated in the film. Hamlet is able perennially to speculate on "Whether 'tis nobler in the mind to suffer / The slings and arrows of outrageous fortune, / Or to take arms against a sea of troubles / And by opposing end them,"partly because Shakespeare was born an imaginative genius in an age when a multicultural modern English was aborning and enabling the creation of a literature and drama of extraordinary richness, social diversity, and human understanding, with even a touch of global vision: he plays everywhere. His imaginative gift for creating dramatic actions extravagant, disturbing, funny, and searching by turns was complemented by a verbal gift of astonishing range and wit, whether Hamlet or a gravedigger speaks. The language may seem remote on first acquaintance, but it readily comes into focus and technicolor for most who are willing to make the effort—and be rewarded evermore. 8-10 representative plays, with attention to contemporary contexts and antecedents, continuing social relevance, and some recent productions, and emphasis on understanding Shakespeare's text.
Class time: 80% lecture, 20% discussion
Work load: 60 pages of reading per week, 10-15 pages of writing per semester, 3 (1 OPT exams, 3 +OPT papers, in-class written exercises
Grade: 20% mid-semester exam(s), 40% final exam, 25% written reports/papers, 15% quizzes
Exam format: Essay, with some objective questions

EngL 1201W Introduction to American Literature
(Sec 001); Credit will not be granted if credit has been received for: ENGL 1201V, ENGL 1202, ENGL 1202; prereq—=1202; meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Griffin, Edward M **!!CLA Distinguished Teaching Award!!**
This is not a course in the history of American literature that teaches you who wrote what, and when. The English Department's survey courses fulfill that mission admirably. Nor is this a masterpieces course designed to familiarize you with the acknowledged classics. (Rest assured, however, that you will read some masterly texts.) Nor is this a major authors course intended to teach you which writers are the most important. It is, rather, an introduction. Concentrating upon fiction and drama, it contains 2 units. In the first, you study "Invisible Man", "Fences", "The Natural", and "The Bear". In the second, you study "The Awakening", "The Bluest Eye", "The Woman Warrior", "Mean Spirits", and "At Paradise Gate". It is a themes, topics, and techniques course, emphasizing several significant features persistently recurring in what scholars call "American" literature to distinguish it from other literatures written in English ("British" or "post-colonial" for instance). As we shall discover, "American" is a much more contested term than it might seem, but we use it because it is the commonly accepted designation. We do not always move in strict chronological order; we mix famous and less-famous works; we read some talented-but-not-yet-celebrated writers together with the acknowledged masters. We'll find that these writers, although often taking decidedly different positions, share certain preoccupations and themes: cultural diversity, including race, class, and gender.
Class time: 75% lecture, 25% discussion, Two lectures per week and one discussion meeting
Work load: 120 pages of reading per week, 15 pages of writing per semester, 1 exams, 2 papers, WI requires submission of drafts and revisions
Grade: 40% final exam, 45% written reports/papers, 15% class participation
Exam format: Two essays and short matching portion

EngL 1301V Honors: Introduction to Multicultural American Literature
(Sec 001); Credit will not be granted if credit has been received for: ENGL 1301, ENGL 1301W; A-F only; prereq—honors; meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: STAFF
Tillie Olsen reminds us that "Literary history and the present are dark with silences: some the silences for years by our acknowledged great; some silences hidden; some the ceasing to publish after one work appears; some the never coming to book form at all" (Silences 1978). This course attempts to study the representative works of those who have broken and continue to break these kinds of silences within American culture, a dynamic that highlights the complex relationship between the dominant culture (read: the mainstream) and minority groups (read: the margins). Multiculturalism within the university is a recent phenomenon that attempts to redress the historical and literary silences that have shaped our understanding of "great" literature. Some works by minority writers can now be considered part of this canon such as Carlos Bulosan's _American Is in the Heart_, Sandra Cisneros' _The House on Mango Street_, Ralph Ellison's _The Invisible Man_, Maxine Hong Kingston's _The Woman Warrior_, Louise Erdrich's _Love Medicine_ and Toni Morrison's _Beloved_. Readings for this class may include some of these canonical works along with some non- or perhaps pre-canonical works in order for us to discuss various literary

forms and styles within the framework of American literary history. Readings may cross genres—prose, poetry, drama—and media forms—film, documentary, music—and this class emphasizes extensive yet fun and challenging reading and writing.

EngL 1501 Literature of Public Life
(Sec 001); A-F only; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Literature Core; 4 cr
Instructor: STAFF
This course will introduce students to the meaning and practice of citizenship. Through diverse literary materials, it explores themes and issues in American public life: debates about access to citizenship, the relation between social duties and individual freedoms, and the role of moral values in public life. Topics will move from historical conflicts relating to native Americans, slavery and national independence to contemporary conflicts over race, economic inequality, and religion. Students will develop critical skills for assessing the ideas and means by which Americans have sought to imagine a shared identity. We will explore what American literature and culture can teach us about the practical importance of literacy in allowing us to participate in public life. What are the distinctive ways that American literature teaches us to value personal experience, to invest the shifting boundaries between public and private with psychological and moral significance? What are the changing terms by which Americans have sought to transform themselves in a democratic culture? Literature is uniquely suited to the task of civic imagination because it trains us to walk through the world in other people's shoes.

EngL 1601W English Language and Society
(Sec 001); prereq—credit will not be granted if credit received for: EngC 1601W; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Escure, Genevieve J
This course is a basic introduction to the English language, with emphasis on the roles that gender, ethnicity and socio-economic status play in the development of linguistic norms and the selection of linguistic options. The first part of the course examines sociocultural aspects of language in the United States (language attitudes; standard vs. nonstandard dialects; the role of education in the shaping of language norms; the acquisition of Standard English by members of minority groups such as African Americans or Latino immigrants; the conflict between literacy and orality; language as identity marker in relation to ethnicity, gender or sexual orientation). The second part explores international aspects of the development of English (historical borrowing, in particular from Romance languages; socioeconomic aspects of postcolonial influences as evident in such varieties as U.S. Black English, British Black English, and other forms of English spoken for example in Africa and the Caribbean).
Class time: 70% lecture, 30% discussion
Work load: 30 pages of reading per week, 10 pages of writing per semester
Exam format: multiple choice, short questions, true/false

EngL 1905 Topics: Freshman Seminar: Home and Away: Fiction about Region and Community
(Sec 001); A-F only; 3 cr
Instructor: Miner, Valerie J
"Imagining Home and Away: Reading and Writing Fiction about Geographical Region and Community." Students will read novels and stories which feature a strong sense of place. They will also do individual assignments and a class project in the field the short story. New and experienced writers are all welcome.

EngL 3001W Textual Interpretation, Analysis, and Investigation
(Sec 001, 006, 008-013); Credit will not be granted if credit has been received for: ENGL 3001V, ENGL 3001V, ENGL 3801; prereq—credit will not be granted if credit has been received for: 3801, 3001V; meets CLE req of Writing Intensive; 4 cr
Instructor: Weinsheimer, Joel **!!Morse Alumni Award!!**
This course aims to provide English majors with the tools necessary to progress through the program. We will be concentrating on techniques of close reading applied to poetry and fiction, as well as examining some of the literary theories in professional use at the present time.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 20 pages of writing per semester, Daily, short answer reading quizzes
Grade: 70% written reports/papers, 30% quizzes

EngL 3002 Modern Literary Criticism and Theory
(Sec 001); prereq—credit will not be granted if credit received for: 3802; [3001, 12 cr in other literature courses] or instr consent; 3 cr
Instructor: Mowitt, John W
Ever felt like someone is reading something "into"a text? Ever wondered how or why s/he does it? If so, this course is for you. Reading is not simply a matter of literacy. It is also a matter of approach. What we will study in this course are some of the theoretical approaches to literary analysis (that is, reading) that have come to influence the discipline of English in the modern period. From this course you will acquire the means to explain how you read the way you read. You will also be exposed to several influential accounts of the concepts and questions relevant to literary analysis and its justification. It may happen, of course, that your way of reading will come to resemble one of those we will study. It may not. Either way, the mysteries of "reading into" a text will no longer elude you.
Class time: 30% lecture, 70% discussion
Work load: 15-30 pages of reading per week, 25 pages of writing per semester, 1 papers
Grade: 100% written reports/papers

EngL 3003W Historical Survey of British Literatures I
(Sec 001); meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Watkins, John Allen
English 3003 will examine the simultaneous emergence and critique of a national literary tradition in Britain from the Anglo-Saxon invasions through the eighteenth century. Emphasis will be on the development of such genres as the epic, lyric poetry, and the novel. We will be particularly interested in the relationship between literature and other fields of cultural and social experience, including politics, religion, economics, the other arts, science, and technology.

EngL 3005W Survey of American Literatures and Cultures I
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Augst, Thomas E
This course explores the evolution of literary genres, themes and forms from the colonial period through the Civil War, tracing some of the competing stories through which different peoples have invested American experience with meaning, while also considering the relevance of these stories for us today. The course will address the emergence of a distinctive American literary tradition, in profound texts ranging from the Puritan settlement, the Revolution, and the "American Renaissance", including works by Bradstreet, Dickinson, Edwards, Emerson, Melville, Rowlandson, Thoreau, and others. We will be equally concerned with interpreting the diversity of ways in which people have used literature to understand one another and themselves within popular cultures of literary practice, through Native and Anglo-American modes of oral performance, as well as nonfictional prose works of autobiography, history, sermons, diaries, letters, and propaganda. Requirements will include two essays, mid-term examination, and final.

EngL 3007 Shakespeare
(Sec 001, 002, 004, 005); prereq—credit will not be granted if credit has been received for: ENGL 3807; Engl [major or minor or pre-major] or instr consent; 3 cr
Instructor: Garner, Shirley Nelson **!!Morse Alumni Award; Outstanding Service Award!!**
Plays from all of Shakespeare's periods, to be selected from among A Midsummer Night's Dream, Hamlet, the history plays, King Lear, Macbeth, The Tempest, Twelfth Night, Antony and Cleopatra, Othello, and The Winter's Tale.
Class time: 15% lecture, 85% discussion
Work load: 25 pages of reading per week, 12 pages of writing per semester, 0 exams, 4 papers
Grade: 85% written reports/papers, 15% class participation

EngL 3007H Honors: Shakespeare
(Sec 001); prereq—credit will not be granted if credit received for: 3007; CLA honors; meets HON req of Honors; 3 cr
Instructor: Hirsch, Gordon D **!!Morse Alumni Award!!**
What makes the plays of William Shakespeare popular and interesting nearly 400 years after his death? We will read and discuss approximately nine Shakespeare plays in an effort to answer this question. The readings will represent a variety of genres and the chronological range of Shakespeare's career as a playwright. Likely readings include "Romeo and Juliet","A Midsummer Night's Dream", "Richard II", "Twelfth Night", "Hamlet", "The Merchant of Venice", "King Lear", "The Winter's Tale", and "Antony and Cleopatra". This course meets a requirement for English majors, but non-majors are welcome too. The Honors component of the course will probably include oral reports by students, readings of some criticism of the plays, and oral readings of scenes by class members preparatory to class discussion.
Class time: 25% lecture, 75% discussion
Work load: 40 pages of reading per week, 20 pages of writing per semester, 1 exams, 4 papers

Grade: 20% final exam, 60% written reports/papers, 20% class participation
Exam format: Multiple choice and essay

EngL 3020 Studies in Narrative
(Sec 001); max crs 9; 3 repeats allowed; 3 cr
Instructor: Luke, David B
This course will study the development of the 19th-century English Novel from cultural, psychological, and philosophical perspectives.á Novels will include:á Mary Shelley, "Frankenstein," Emily Bronte, "Wuthering Heights," Charles Dickens, "Great Expectations," George Eliot, "Middlemarch," Thomas Hardy, "The Return of the Native," and Joseph Conrad, "Heart of Darkness."
Class time: 75% lecture, 25% discussion
Work load: 75 pages of reading per week, 12-15 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: Essay

EngL 3030H Studies in Drama
(Sec 001); max crs 9; 3 repeats allowed; prereq—honors; meets HON req of Honors; 3 cr
Instructor: Leyasmeyer, Archibald I **!!Morse Alumni Award!!**
"All the world's a stage,/And all the men and women merely players," Shakespeare writes, but amidst playing out life's play on the world's great stage, humans have set apart special places for artistic playing, places of creation and transformation, making tangible the world of the imagination, and called them theater. Theatrical play operates outside of ordinary time and space, and with its representations and reenactments it nourishes our capacity for self-understanding. It is entertainment, recreation and re-creation, remembrance and discovery. The best of theater operates in the interrogative mode, asking profound questions about the very nature of things and our basic humanity, awakening dangerous and exciting energies. We will examine some dozen or so selected plays from the modern age (Pirandello to Pinter, O'Neill to Beckett), consider some of the social, intellectual, and aesthetic factors that make for the "modern consciousness," and approach the plays with a theatrical perspective. A course for anyone with curiosity and an appreciation for the imagination, another word for ultimate power.

EngL 3040 Studies in Film: The Cinematics of Loss
(Sec 001); max crs 9; 3 repeats allowed; 3 cr
Instructor: Sprengnether, Madelon M
This course will examine various dimensions of the experience of loss as represented through the medium of film. Lectures and texts for the course will address issues of film production and aesthetics as well as the psychodynamics of grief and mourning. Films selected for screening will represent different psychological perspectives, as well as different cinematic strategies on the topic and will be international in scope. Films may include: "Blue" (Krzysztof Kieslowski), "The Cement Garden" (Andrew Birkin), "Fearless" (Peter Weir), "Hiroshima Mon Amour" (Alain Renais), "Ponette" (Jacques Doillon), "Solaris" (Andrei Tarkovsky), in addition to others.
Class time: 25% lecture, 75% discussion
Work load: 100 pages of reading per week, 30-40 pages of writing per semester, 0 exams, Short papers; in-class film viewing

EngL 3151 Romantic Literatures and Cultures
(Sec 001); 3 cr
Instructor: Luke, David B
English Romantic Poetry—British Romantic poetry written between 1780 and 1830. Examine the concept of Romanticism, the effects of the French Revolution on literary production, and the role of the romantic artist.
Class time: 75% lecture, 25% discussion
Work load: 25 pages of reading per week, 12-15 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: Essay

EngL 3212 American Poetry from 1900
(Sec 001); 3 cr
Instructor: Bales, Kent
This course will acquaint you with a number of poets and several kinds of poetry written since about 1900. Readings will bé from perhaps two anthologies and from a recent issue of American Poetry Review, the latter both for the poetry printed there and for the essays on poets and the practice of poetry to be found there. One of these essays will be the focus of one of your papers; a comparative study of several poems will be the assignment for a second paper. Class discussions and brief panel discussions about individual poets will occupy about half of our time. Non-majors are welcome. Two recurring themes will be the assumed and perceived importance of poetry in our culture—or the lack of such importance-and the social and political forces that gave relevance to poetry. Recurring backgrounds to these themes are the fiction, music, visual arts (including film and video), and theater of your grandparents' and parents' times, as well as of your own.
Class time: 50% lecture, 40% discussion, 10% Panel discussion
Work load: 1 exams, 2 papers
Grade: 30% final exam, 50% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: Essay: study questions provided
Course URL: www.tc.umn.edu/~bales/

EngL 3221 American Novel to 1900
(Sec 001); 3 cr
Instructor: Ross Jr, Donald
Novels from the early Republic through Poe, Hawthorne, Melville, and Stowe, to the writers of the end of the 19th century (e.g., Howells, Twain, James, Chopin, and Crane). The development of a national literature, tension between realism and romance, and changing roles of women as writers and as fictional characters. Likely readings—Susanna Rowson, "Charlotte Temple"; Nathaniel Hawthorne, "Blithedale Romance"; Herman Melville, "Typee"; Harriet Beecher Stowe, "Uncle Tom's Cabin"; Oliver Wendell Holmes, "Elsie Venner"; William Dean Howells, "Rise of Silas Lapham"; Mark Twain, "Tom Sawyer"; Henry James, "Portrait of a Lady"; Frances E.W. Harper, "Iola Leroy"; Kate Chopin, "The Awakening". Tentative writing—one-page weekly response papers, longer paper involving another novel by one of the writers on the syllabus, take-home final and (perhaps) a mid-term.
Class time: 25% lecture, 75% discussion
Work load: 125 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers, One page weekly response papers
Exam format: Essay

EngL 3592 Introduction to Black Women Writers in the United States
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; 3 cr
Instructor: Reyes, Angelita Dianne **!!Morse Alumni Award!!**
This course presents an introduction to basic issues in literature and culture by women of African descent in the United States. The readings will reflect historical, cultural and contemporary perspectives. We will look at the ways women of African descent give meaning to their lives and history through literature and cultural artifacts. Using the intersections of ethnicity, gender, and class, we will explore selected novels, essays, short stories, slave narratives, contemporary autobiography and other forms of creative fiction and non-fiction. Some readings will be available on reserve from Wilson Library. Everyone is welcome to this course.
Class time: 45% lecture, 5% cctv, 40% discussion, 10% Group break-out sessions
Work load: 50-75 pages of reading per week, 15-20 pages of writing per semester, 3 exams, 1-2 papers, Research project or research paper
Grade: 25% mid-semester exam(s), 20% special projects, 20% quizzes, 15% in-class presentations
Exam format: Short answer essay questions

EngL 3601W Analysis of English Language and Culture
(Sec 001, 006); prereq—credit will not be granted if credit received for: EngC 3601W; meets CLE req of Writing Intensive; 4 cr
Instructor: Escure, Genevieve J
This course is a non-prescriptive introduction to the systematic, abstract nature of human language as it is represented in international varieties of English. Attention is given equally to language structure and to language use. The first part of the course develops an understanding of the nature of language comprehension and production processes through the analysis of the basic linguistic components: sound structure (phonetics and phonology); word structure (morphology); sentence structure (syntax); and meaning (semantics). The second part of the course examines the social and behavioral function of language (sociolinguistics) and the organization of discourse (pragmatics) in the context of human interaction. Social variables, such as socio-economic status, ethnicity and gender are linked to linguistic variability. An international perspective is provided with the use of sample data from contemporary Englishes (British, Canadian, Caribbean, African, etc..). The final segment of the course relates historical and developmental data (native language acquisition) to the principles and processes previously presented.
Class time: 70% lecture, 30% discussion
Work load: 30 pages of reading per week, 10 pages of writing per semester, 3 exams

Grade: 25% mid-semester exam(s), 50% final exam
Exam format: multiple choice, short problems, true/false statements

EngL 3603W World Englishes
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Escure, Genevieve J
Historical background, psychosocial significance, and linguistic characteristics of diverging varieties of English spoken around world, especially in postcolonial contexts (Caribbean, Africa, Asia). Development of local standards/vernaculars. Sociolinguistic methods of analysis.

EngL 3880 General Topics
(Sec 001, 002); max crs 9; 3 repeats allowed; 3 cr
Instructor: Lee, Josephine D
INTRODUCTION TO ASIAN AMERICAN STUDIES This course introduces students to Asian American Studies, a field of inquiry that deals with the history, cultural productions, and contemporary concerns of Americans of Chinese, Japanese, Korean, South Asian, Filipino, and Southeast Asian ancestry. Students will be asked to look at Asian American communities from a variety of scholarly perspectives.

EngL 3883V Honors Thesis
(Sec 001-003); A-F only; prereq—Honors candidacy in English, consent of English honors advisor; meets CLE req of Writing Intensive; meets HON req of Honors; 3 cr
Instructor: STAFF
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 in the "English Major Guidebook," the required handbook for all English majors. Handouts are also available in the English Undergraduate Office. Using a contract form available in the English Undergraduate Studies Office, students make arrangements with a professor no later than the term preceding their last two terms. 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 participate in peer review sessions organized by the GTA teaching Engl 3882. It is recommended that they attend a thesis preparation and writing workshop offered by the CLA Honors advisors, consult with the English Honors advisor, and work closely with the professor. Some students also find it helpful to have a peer English honors student serve as a discussant and reader during the process of developing ideas and writing.
Class time: 50 minutes per week, 1 class meeting. Individual research, reading, writing. One-to-one discussions
Work load: The work load varies with the project.
Grade: 100%, Grade is based on the completed thesis, the process leading to the final product, and the discussion
Course URL: English.cla.umn.edu/

EngL 3960W Senior Seminar
(Sec 001-005); A-F only; prereq—English major, [jr or sr], major adviser approval, dept consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Cucullu, Lois B
"The Body Politic and the Politics of the Body". Over the course of the nineteenth and twentieth centuries, womenÆs writing registers this dilemma. It testifies to womenÆs struggle to be recognized by the body politic. At the same time, it reveals that the terms of recognition identify women with the very differenceùtheir bodiesùthat is responsible for their political exclusion. This conundrum will inform our study and lead us to consider more broadly questions of gender and sexuality in a diverse group of texts by male and female writers. In liberation narratives, suffrage tracts, aesthetic experiments, queer theories, and post-colonial critiques, we shall consider the following. Why and how does the sexed body come to function as a primary differential of value and of identity? What are the material and ideological bases for its privileging? What roles do other indices of identity, such as race, class, ethnicity, and religion, have in producing the body? How do these work in concert or in opposition to structure the language and institutions that mark the body? Likely writers are Charlotte Bronte, Harriet Jacobs, E. M. Forster, W.E.B. DuBois, Sigmund Freud, Virginia Woolf, Sandra Cisneros, bell hooks, Tayeb Salih, Monique Wittig.
Class time: 30% lecture, 70% discussion

EngL 3980 Directed Instruction
(Sec 001); max crs 6; prereq—instr consent, dept consent, college consent; 1-6 cr
Instructor: STAFF
Guided individual learning about teaching and undergraduate courses through research and assisting in instruction. Before receiving permission to register, students must submit to the English Undergraduate Studies Office a signed written contract using the CLA "Student/Faculty Contract for Directed Study/Research, Directed Instruction, "Y" Registration, and "X" Credit" available in all CLA advising offices, including the English Undergraduate Office. No catalogue description exists, but the description is as follows: An opportunity to learn more about a subject you have studied by assisting in teaching it to others. One to six credits per semester may be earned through directed instruction; a maximum of eight credits may be applied toward a CLA degree. Students can expect to complete a formal writing assignment as part of the course requirements. This registration is intended primarily for English majors already admitted to the major. This is an opportunity which takes careful planning between student and professor and is thus not frequently used. The Department expects that two to four students will take the course in an academic year, none in extension or summer session.
Class time: 100% **Class time:** 100% need permission, will assist that professor, work independently in consultation wit
Grade: 100% written reports/papers, **Grade:** 100% based on writing assignment defined by students and the supervising professor in the wri

EngL 3992 Directed Reading
(Sec 001); max crs 12; 3 repeats allowed; A-F only; prereq—Instr consent, dept consent, college approval; 1-15 cr
Instructor: STAFF
Guided individual reading. Open to qualified students for one or more semesters. Before receiving permission to register, students submit to the English Undergraduate Studies Office a signed contract using the CLA "Student/Faculty Learning Contract" available in all CLA offices.

EngL 3993 Directed Study
(Sec 001); max crs 3; prereq—instr consent, dept consent, college approval; 1-8 cr
Instructor: STAFF
Guided individual study. Open to qualified students for one or more semesters. Before receiving permission to register, students submit to the English Undergraduate Studies office a signed contract using the CLA "Student/Faculty Learning Contract" available in all CLA offices.

EngL 5401 Introduction to Editing
(Sec 001); 4 cr
Instructor: STAFF
Beginning editing, from substantive editing to the nature of the editor-writer relationship: manuscript reading, author queries, rewrite and style, some discussion of copy editing. Students develop editing awareness and skills by working on varied writing samples. For advanced undergraduates, graduate students, or working adults interested in continuing education. No prerequisite. Primary text: The Chicago Manual of Style.

English: Writing, Rhetoric, and Language
225 Lind Hall; 612-625-2888

EngC 1011 University Writing and Critical Reading
(Sec 001-003, 005-011, 013, 014, 016, 017, 019, 020, 022, 025, 028, 029, 031); Credit will not be granted if credit has been received for: ENGC 1011H; prereq—credit will not be granted if credit received for 1012, 1013, 1014, 1015, 1011H, GC 1422, GC 1423, GC 1424; placement in category 2 or 3; some sections limited to ESL; 4 cr
Instructor: STAFF
EngC 1011 fulfills the freshman writing requirement and helps students make the transition between high school and college by introducing them to academic writing. The freshman writing instructor guides students to communicate clearly, effectively, and creatively in a university setting and other communities. Emphasizing critical reading, writing, and thinking, the course teaches students how to discover and create knowledge by generating questions, investigating issues, and forming their own opinions. Although sections will differ according to the instructor's individual approach, students will receive a lot of feedback on their writing through writing workshops, instructor comments, and conferences. In all University Writing and Critical Reading courses (EngC 1011, 1012, 1013, 1014) students learn how to: (1) Use writing and reading to communicate, describe, analyze, and persuade. (2) Read critically to identify an author's audience, purpose, arguments, and assumptions. (3) Approach writing as

a series of tasks that need collaboration with others and multiple drafts. (4) Make appropriate choices about content, rhetoric, structure, vocabulary, style, and format. (5) Develop strategies for generating and organizing ideas and arguments, revising, editing, and proofreading. (6) Locate and evaluate secondary sources; integrate sources with one's own ideas; document sources appropriately. (7) Write comfortably using the conventions of standard written American English.

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1011H Honors: University Writing and Critical Reading

(Sec 001); Credit will not be granted if credit has been received for: ENGC 1011, ENGC 1011, ENGC 1011; prereq—credit will not be granted if credit received for: 1011, 1012, 1013, 1014, 1015, GC 1422, GC 1423, GC 1424; honors, [placement in category 2 or 3; meets HON req of Honors; 4 cr

Instructor: STAFF

See description for EngC 1011

Work load: 20 pages of reading per week, 15-20 pages of writing per semester, 4 papers

EngC 1012 University Writing and Critical Reading: Perspectives on Multiculturalism

(Sec 001-003, 005-010, 012-017, 020, 022); prereq—credit will not be granted if credit received for: 1011, 1012H, 1013, 1014, 1015, GC 1422, GC 1423, GC 1424; placement in category 2 or 3; some sections limited to ESL students; EngC 1012 does NOT meet CLE requirement of Cultural Diversity theme; 4 cr

Instructor: STAFF

This course is EngC 1011 (please see the course description for EngC 1011) with a thematic focus. Students explore race, nation, gender, and identity. Students might write "cultural diversity" autobiographies, research cultural resources on campus, view a film and write a review critiquing the ways it represents ethnic groups, or engage in persuasive writing for political action. In addition to the objectives for EngC 1011, a student in 1012 will learn how to: Describe how various groups have contributed to the nation's culture; Analyze the traditions of people from diverse backgrounds; Create arguments about how differences in race, ethnicity, and gender structure experience and influence social interactions.

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1012H University Writing and Critical Reading: Perspectives on Multiculturalism

(Sec 001, 002); prereq—credit will not be granted if credit received for: 1011, 1012, 1013, 1014, 1015, GC 1422, GC 1423, GC 1424; honors, [placement in category 2 or 3]; EngC 1012H does NOT meet CLE requirement of CLE Cultural Diversity theme.; meets HON req of Honors; 4 cr

Instructor: STAFF

See description for EngC 1012

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1013 University Writing and Critical Reading: Nature and the Environment

(Sec 002, 003, 005, 007); Credit will not be granted if credit has been received for: ENGC 1013H; prereq—credit will not be granted if credit received for: 1011, 1012, 1013H, 1014, 1015, GC 1422, GC 1423, GC 1424; placement in category 2 or 3; some sections may be limited to ESL students; EngC 1013 does NOT meet CLE requirement of CLE Environment theme; 4 cr

Instructor: STAFF

This course is EngC 1011 (please see the course description for EngC 1011) with a thematic focus. Students learn about arguments that shape our understanding of the natural world and our responsibility to it. Students might write nature journals, book reviews, and political action letters. Classes might take field trips, such as a walking tour of the Mississippi River, an exhibit of nature paintings at an art museum, or the Raptor Center and other sites on the St. Paul campus. In addition to the objectives for EngC 1011, a student in 1013 will learn how to: Describe the environmental implications of development and technology; Analyze how public policy issues have technical, legal, and political dimensions; Create arguments about the historical and long-standing ethical issues regarding human interaction with the environment.

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1013H University Writing and Critical Reading: Nature and the Environment

(Sec 001, 002); Credit will not be granted if credit has been received for: ENGC 1013; prereq—credit will not be granted if credit received for: 1011, 1012, 1013, 1014, 1015, GC 1422, GC 1423, GC 1424; honors, [placement in category 2 or 3]; EngC 1013H does NOT meet CLE requirement of CLE Environment theme; meets HON req of Honors; 4 cr

Instructor: STAFF

See description for EngC 1013

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1014 University Writing and Critical Reading: Contemporary Public Issues

(Sec 001, 003, 004, 006, 008, 010, 012-014, 016, 018, 020-024); Credit will not be granted if credit has been received for: ENGC 1014H; prereq—credit will not be granted if credit received for: 1011, 1012, 1013, 1014H, 1015, GC 1423, GC 1424; some sections may be limited to ESL students; EngC does NOT meet CLE requirement of CLE Citizenship and Public Ethics theme; 4 cr

Instructor: STAFF

This course is EngC 1011 (please see the course description for EngC 1011) with a thematic focus. Students think about writing in relation to the most challenging social and political issues facing the United States and the world today. Activities in this course might include debating the meaning of citizenship, evaluating candidates, and writing letters to newspapers and public officials. In addition to the objectives for EngC 1011, a student in 1014 will learn how to: Describe the range of past and present meanings of citizenship; Analyze the rights and obligations of citizens in their communities; Create arguments about the civic and ethical responsibilities of students, teachers, scientists, businesspersons, elected officials, and others.

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1014H University Writing and Critical Reading: Contemporary Public Issues

(Sec 001, 002); Credit will not be granted if credit has been received for: ENGC 1014; prereq—credit will not be granted if credit received for: 1011, 1012, 1013, 1014, 1015, GC 1422, GC 1423, GC 1424; honors; EngC 1014H does NOT meet CLE requirement of CLE Citizenship and Public Ethics theme; meets HON req of Honors; 4 cr

Instructor: STAFF

See description for EngC 1014

Work load: 20 pages of reading per week, 15-20 pages of formal writing per semester, 4 papers

EngC 1015 University Writing and Critical Reading: Perspectives on Globalization

(Sec 001); prereq—credit will not be granted if credit received for: 1011, 1012, 1013, 1014, GC 1422, GC 1423, GC 1424; placement in category 2 or 3; some sections may be limited to ESL students; 4 cr

Instructor: STAFF

This course is a version of EngC 1011 with a thematic focus. Students explore how they relate to cultures and events globally to develop an inclusive understanding of the effects of globalization on contemporary life. Assignments will help students deal explicitly with important cultural, political, diplomatic and other interdependencies in today's world. Students will explore historical patterns as they explore current literature, media reports and analysis, and "hot issues" in regions inside and outside the US to help them understand how events, perspectives, and attitudes affect us as a global community. Students will read articles, view films, read international newspapers and media publications, and write papers from various cultural perspectives to help them with understanding events from beyond that of an American ethno-centric point of view, analyzing events around the world to understand how we connect globally.

Work load: 20 pages of reading per week, 4 papers, 15-20 pages of formal writing per sememster

EngC 1021W Intermediate Expository Writing

(Sec 005); prereq—1011 or 1012 or 1013 or 1014; meets CLE req of Writing Intensive; 4 cr

Instructor: STAFF

This course exposes students to the range of options they have available to them as writers and encourages a realization that successful or effective writing takes these options into account. It teaches students to ask and answer the question: Given the audience and the context of this writing situation, what am I really being asked to do, and what choices can I make in tone, style, organization, and content to make my writing as effective as possible? In accomplishing this goal, students read, analyze, and produce a variety of different rhetorical styles. The course focuses primarily on the

writing that students will face for the remainder of their academic career. Typical assignments: critical essays, research papers, literature reviews, essay exams and reports of various sorts. Many sections include additional practice in general research and library techniques. The preceding description is necessarily general; each instructor determines the specific content and requirements for the course.
Work load: 20 pages of reading per week, 15-20 pages of writing per semester, 4 papers

EngC 3027W Advanced Expository Writing
(Sec 001-004); prereq—Completion of freshman writing req; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This is a course for students ready to face more challenging assignments and deepen their comfort and skill with writing. The instructor helps the student develop more sophisticated research strategies and experiment with more creative stylistic choices. Assignments might include autobiographies, critical comparisons, reviews of articles or books, cultural analyses, persuasive essays, and annotated bibliographies. Students in this course learn to: Generate topics and develop essays with greater independence than they exercised in freshman composition. Write for multiple audiences—academic and non-academic—making appropriate decisions about content, rhetoric, structure, vocabulary, style, and format. Write creative non-fiction and other genres incorporating complex description and analysis. Analyze the conventions and styles of writing in their major field. Experiment with new and more sophisticated writing strategies and styles.
Work load: 20-30 pages of reading per week, 15-20 pages of writing per semester, 4 papers

Entomology

Hodson Hall 612-624-3636

Ent 3005 Insect Biology
(Sec 001); 3 cr
Instructor: Weller, Susan J.
This course is an introduction to the diversity, structure and physiology of insects. The second half of the course examines insect behavior and their roles in the envrionment. Insect management and conservation issues related to agriculture, urban and natural environments are emphasized. Laboratory activities include insect identification, insect physiology and behavior, and discussion of case studies. This course is appropriate for all undergraduates with one background biology course. A mandatory field trip to observe and collect insects is scheduled for Saturday, September 16, 2000. Required text: "Insect Biololgy", (Doyen, Daly and Purcell). Optional text: "Insects", 2nd edition (Gullan and Cranston). Supplementary readings on library reserve.
Class time: 40% lecture, 10% discussion, 50% laboratory
Grade: 20% mid-semester exam(s), 30% final exam, 20% written reports/ papers, 10% class participation, 20% , Poster exhibit

Ent 4096 Professional Experience Program: Internship
(Sec 001); max crs 3; S-N only; prereq—COAFES jr or sr, complete internship contract available in COAFES Career Services before enrolling, UC only, instr consent; 1-3 cr
Instructor: STAFF
Professional experience in entomology firms or government agencies through supervised practical experience; evaluative reports and consultations with faculty advisors and employers.

Ent 4251 Forest and Shade Tree Entqmology
(Sec 001); prereq—3001 or instr consent; 3 cr
Instructor: Seybold, Steven J
As the most diverse group and one of the most ancient of organisms on earth, insects have had a long period to co-evolve with plants. Insects have fed and reproduced on woody plants long before humans contemplated their uses for food and fiber. For urban and woodland foresters, horticulturalists, pest control operators, forest health protection specialists and general resource managers, the diagnosis and management of insects that feed on and colonize woody plants and their products is a challenging task. For forest ecologists insects present a major agent that influences the dynamics of the forest. In order to promote the longevity and growth of trees valued for wood products or property value enhancement, we need to identify, diagnose, and manage insect problems associated with trees. Management can be as simple as the removal of several phloem-infesting larvae from pitch masses on a pine tree to full-scale fumigation or heat treatment of a load of finished lumber infested with exotic wood-borers. This course will emphasize the identification, biology, and diagnosis of damage of insects associated with forest and shade trees and examine the range of research-based options available to the various stakeholders listed above. The course will also emphasize the interactive factors that link insects and their habits to the forest ecosystem. Course is designed for undergrad and grad students in horticulture, forestry, and entomology.
Class time: 40% lecture, 30% discussion, 30% laboratory
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/ papers, 10% quizzes, 10% class participation, 10% lab work
Course URL: www.entomology.umn.edu/classes/ent4251/

Ent 5011 Insect Structure and Function
(Sec 001); A-F only; prereq—3005 or instr consent; 4 cr
Instructors: Weller, Susan J.; Kurtti, Timothy J
Comparative study of insect structures and their functions with an evolutionary perspective; includes introductory physiology of digestion, respiration, and other organ systems.

Ent 5211 Insect Pest Management
(Sec 001); prereq—3005 or instr consent; 3 cr
Instructor: Radcliffe, Edward B
In ENT 5211, we examine the philosophy and implementation of insect pest management, an essential component of most Integrated Pest Management (IPM) and Sustainable Agriculture systems. Insect pest management can be defined as the practice of preventing or suppressing damaging populations of insect pests by application of the comprehensive and coordinated integration of multiple control tactics. The tactics are the various control methodologies, e.g., biological, chemical, cultural. The strategies are the planned manipulations undertaken to optimize the dynamic integration of control methodologies in the context of their economic, environmental and social consequences. The philosophy is holistic, but deeply rooted in applied ecology. In this course, we survey various control tactics and consider strategies for optimizing their integration into insect pest management programs. Our primary emphasis is on the management of insect pests of agricultural crops. Intended audience is upper division undergraduates and graduate students, and agricultural professionals with an interest in crop protection. Both majors and non-majors are welcome.
Class time: 80% lecture, 20% discussion
Work load: 30 pages of reading per week, 30 pages of writing per semester, 0 exams, 15 papers
Grade: 100% written reports/papers
Course URL: ipmworld.umn.edu

Ent 5275 Medical Entomology
(Sec 001); prereq—3005 or instr consent; 3 cr
Instructors: Fallon, Ann M; Kurtti, Timothy J; Moon, Roger Dean
Biology of arthropod vectors of human disease. Disease transmission and host, vector, and pathogen interactions are covered. Topics include: physiological and morphological adaptations of insects for disease transmission; human immune response to insect vectored pathogens, venoms, etc.; host/pathogen/vector interactions in malaria, trypanosomiasis, onchocerciasis, leishmaniasis, and other tropical diseases; lyme disease; mosquito-borne diseases in the U.S.; World Health Organization and other public health efforts to control insect-borne disease; role of insecticide resistance and other factors contributing to incidence of arthropod-borne disease. Advanced undergraduates and graduate students.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 3 exams
Grade: 40% mid-semester exam(s), 40% final exam, 10% in-class presentations, 10% class participation
Exam format: Essay; 5 to 8 short answer questions based on lecture material and assigned readings

Ent 5311 Sampling Biological Populations
(Sec 001); prereq—Stat 5021 or equiv; 3 cr
Instructor: Moon, Roger Dean
This course is designed for biologists who are interested in learning how to sample populations in the laboratory or field. Students learn the basics of sampling to measure abundance or frequency on interesting population traits. Topics include: aggregation in space and time and consequent effects on sample variance; choice of sample unit; randomization in a real world; alternative probability-based sampling designs; sequential design; phenological modeling; and optimization of a chosen design based on biological knowledge, logistical limits and financial constraints. Class time is devoted to discussion and hands-on sampling activities that illustrate chosen topics. A series of problem sets develop analytical and computational skills. Each student develops an original sampling plan for a population of his or her own choice. Familiarity with descriptive statistics, simple analysis of variance, and simple linear regression is prerequisite.

Class time: 20% lecture, 40% discussion, 40% laboratory
Work load: 10 pages of reading per week, 50 pages of writing per semester, 0 exams, 1 papers, 8 problem sets
Grade: 50% written reports/papers, 10% class participation, 20% lab work, 20% problem solving

Ent 5351 Insect Pathology
(Sec 001); prereq—5011; 2 cr
Instructor: Kurtti, Timothy J
This course is an introduction to the diseases of pest and beneficial insects. The emphasis is on the biotechnology of entomopathogenic microbes and their application to microbial control of pest insects. The student will become familiar with the principles of insect pathology and the mechanisms of microbial pathogenesis. The textbook is "Insect Pathology", by Y. Tanada and H.K. Kaya. In addition, the student will read and critically analyze current papers. Oral presentations will be used to summarize these papers for the class. The students will also prepare a report on an entomopathogen of their choice. The objective of this report is to identify the strengths and weaknesses of the pathogen and the prospects for its implementation as a microbial insecticide or a biological control agent. Target audience: advanced undergraduate students in biology; graduate students in entomology, microbiology or ecology.
Class time: 70% lecture, 30% discussion
Work load: 50 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers
Grade: 20% mid-semester exam(s), 30% final exam, 30% written reports/papers, 20% in-class presentations
Exam format: Essay

Ent 5900 Basic Entomology
(Sec 001-020); max crs 6; prereq—instr consent; 1-6 cr
Instructor: STAFF
Opportunity to make up certain deficiencies in biological background.

Ent 5910 Special Problems in Entomology
(Sec 001-020); max crs 10; 10 repeats allowed; prereq—instr consent; 1-6 cr
Instructor: STAFF
Individual field, lab, or library studies in various aspects of entomology.

Ent 5920 Special Lectures in Entomology
(Sec 001-004); max crs 3; 1-3 cr
Instructor: STAFF
Lectures or laboratories in special fields of entomological research given by a visiting scholar or regular staff member.

Entrepreneurship
3-306 CarlSMgt: 612-624-3838

Entr 6095 Topics in Entrepreneurship
(Sec 001); max crs 2; A-F only; prereq—instr consent; 1-4 cr
Instructor: STAFF
Course is independent study targeted at MBA students with a technology background. The student is required to submit a proposal outlining the area of study, scope, and output. Instructor approves proposal or suggests changes. If changes are required, the student must resubmit proposal.
Class time: 100% Independent study—one on one meetings.
Work load: 1 papers
Grade: 100% written reports/papers

Family Education
325 VoTech: 612-624-3010

FE 5001 Family Education Perspectives
(Sec 001); A-F only; 3 cr
Instructor: Thomas, Ruth G. **!!Educ Distinguished Teaching Award!!**
This course will consider various views of family education and examine their origins and their implications. A guiding framework for exploring alternative perspectives of family education will be introduced. Topics include an historical overview of family education, forces and ideas influencing the evolution of family education in the U.S., implications of alternative family education perspectives for the practice of family education and for families served, contexts within which family education takes place, and developing a personal perspective of family education. Class sessions will involve lecture, discussion, reflective dialogue, and large and small group activities. Assignments will include journal writing, reflective and critique papers, discussion leading, and development of a personal philosophy of family education. The course is required for family education majors and is also intended for upper division and graduate students in other programs for which an understanding of family education is relavant
Class time: 20% lecture, 30% discussion, 50% Large and small group activites
Work load: 30 pages of reading per week, 30 pages of writing per semester, 3 papers, Journal
Grade: 80% written reports/papers, 20% in-class presentations

Family Social Science
290 McNeal Hall: 612-625-1900

FSoS 1101 Intimate Relationships
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; 3 cr
Instructor: Caron, Wayne Allan
Focuses on couple dynamics and gives an overview of how to develop, maintain, and terminate an intimate relationship. Relationship skills and issues including communication, conflict resolution, power, and roles are discussed. The course objectives are to provide an overview of these topics as well as a deeper appreciation and awareness of their importance. General topics to be covered include dating, cohabitation, marriage, sexual orientation, gender roles and power, communication and conflict resolution, relationship problems (abuse, infidelity, divorce) and couple enrichment and couple therapy.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 30-40 pages of writing per semester, 5 exams, 1 papers
Grade: 33% mid-semester exam(s), 33% final exam, 33% special projects
Exam format: multiple choice
Course URL: fsos.che.umn.edu/courses/sp2000-ug.html

FSoS 2101 Preparation for Working With Families
(Sec 001); A-F only; prereq—FSOS major; 2 cr
Instructor: Goodman, William Joseph
This course is designed to be a systematic preparation for upper division education, research and field internships, and career possibilities in Family Social Science. Central to the focus of this course is also the advancement of students' thinking power by utilizing five levels of thinking outlined by Bloom, 1956. These five levels: knowledge, comprehension, application, analysis and synthesis are used in responding to the course text, "Becoming a Helper" by Marianne and Gerald Corey (1998) and workbook assignments. Book and class topics include the following: Are the Helping Professions for You? Getting the Most from Your Education and Training, Stages in the Helping Process, Common Concerns of Beginning Helpers, Ethical Issues Facing Helpers, Values and the Helping Relationship, Cultural Diversity in the Helping Professions, Working in the Community, Working with Groups, Working with the Family, Understanding Life Transitions, Stress and Burnout, and The Challenge of Retaining Your Vitality. To review course requirements, goals and objectives, and additional information about this course, students are encouraged to view the syllabus on the WEB.
Class time: 20% lecture, 40% discussion, 20% laboratory
Work load: 25 pages of reading per week, 100 pages of writing per semester, 1 papers, Contract grading
Grade: Contract grading
Course URL: fsos.che.umn.edu/goodman/fsos2101/default.html

FSoS 2191 Independent Study in Family Social Science
(Sec 001); max crs 12; 12 repeats allowed; prereq—Soph, instr consent; meets HON req of Honors; 1-4 cr
Instructor: STAFF
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
(Sec 001); prereq—Soph or instr consent; 3 cr
Instructor: Hogan, Jan M
Students will learn concepts pertaining to financial planing, savings, investments, credit, buying a home and car, mortgages, taxes, bankruptcy, insurance, estate planing, and retirement plans. This course is designed to address financial issues of students' personal and professional roles. It will address best practices, wealth building, and economic security.
Class time: 25% lecture, 25% discussion, 50% speakers, group work, and web based assignments

Work load: 35 pages of reading per week, 10 pages of writing per semester, 2 exams, 2 papers, 4 quizzes, 3 in-class group projects
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/papers, 30% quizzes, 10% , Group projects
Exam format: Multiple choice

FSoS 3191 Independent Study in Family Social Science
(Sec 001); max crs 12; 12 repeats allowed; prereq—Jr, instr consent; meets HON req of Honors; 1-5 cr
Instructor: STAFF
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 3429 Counseling Skills Practicum I
(Sec 001); prereq—=5429; 3 cr
Instructor: STAFF
Development of competency in basic counseling skills. Topics include: counselor needs/motivations, non-verbal communication, empathy (basic and advanced), identifying strengths, maintaing focus, challenging discrepancies, use of self. Emphasis on building from client strengths. Focus on learning through role-playing.
Class time: 25% lecture, 25% discussion, 50% role-play skill development
Work load: 20 pages of reading per week, 10 pages of writing per semester, 1 exams, 1 papers, weekly workbook
Grade: 30% final exam, 20% written reports/papers, 25% class participation, 25% problem solving
Exam format: role play
Course URL: fsos.che.umn.edu/courses/sp2000-ug.html

FSoS 4103 Family Policy
(Sec 001); prereq—3102 or instr consent; 3 cr
Instructor: Rueter, Martha A
In this course, we will examine the development of public policies that influence families. We will study family policies in the United States as well as those in countries throughout the world. We will discuss how and why specific policies develop within various contexts, how specific policies influence families, and how one could influence the policy process to help shape family policy. The class emphasizes class discussion and work within small groups. Students interested in learning more about government policies that affect families and how one might influence the public policy process would benefit from this class. Undergraduate students, graduate students, students majoring in Family Social Science, and students from any other major are all welcome to and could learn from this class.
Class time: 30% lecture, 40% discussion, 30% Small group work
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, 1 Group presentation
Grade: 15% mid-semester exam(s), 15% final exam, 30% written reports/papers, 20% in-class presentations, 20% class participation, Papers—graduate students only.
Exam format: Short answer.

FSoS 4105 Methods in Family Research
(Sec 001); prereq—[3102, one introductory course in statistics] or instr consent; 3 cr
Instructor: Caron, Wayne Allan
This course is designed to give students a basic understanding of social science research methods, particularly as they apply to questions about the family. The scientific method, the major questions and objectives of family research, data gathering, analysis, reporting and social issues will all be explored and examined. Upon completion of the course, students should be able to comprehend and critique family research studies; appreciate the social context of family research, including values and political issues; and understand how diversity issues (race, ethnicity, gender, class, and sexual orientation) are involved in the research process.
Class time: 50% lecture, 50% discussion
Work load: 60 pages of reading per week, 25 pages of writing per semester, 5 exams, 5 papers
Grade: 25% mid-semester exam(s), 25% final exam, 50% written reports/papers
Exam format: multiple choice

FSoS 4106 Family Resource Management
(Sec 001); prereq—credit will not be granted if credit received for: 3103; Soph or instr consent; 3 cr
Instructor: STAFF
An analysis of the managerial behavior of individuals and families, with an emphasis on how individuals and families make decisions and solve problems through the use of interpersonal, economic, natural, and community resources to achieve central life purposes.

FSoS 4155 Parent-Child Relationships
(Sec 001); A-F only; prereq—3102 or instr consent; 3 cr
Instructor: STAFF
History, theories, research and contemporary practices of parent-child relationships in diverse families and cultures across the life span. The course also helps to prepare students for professional work in education, social work and other human service occupations.
Class time: 30% lecture, 30% discussion, 40% films, speakers and small group work
Work load: 100 pages of reading per week, 15 pages of writing per semester, 5 exams, 1 papers
Grade: 40% final exam, 20% written reports/papers, 40% quizzes
Exam format: Multiple choice and essay

FSoS 4191 Independent Study in Family Social Science
(Sec 001); max crs 12; 12 repeats allowed; prereq—Sr, instr consent; meets HON req of Honors; 1-4 cr
Instructor: STAFF
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
(Sec 001); max crs 4; prereq—FSOS major, instr consent; 1-4 cr
Instructor: STAFF
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 anaalysis and research reporting.
Course URL: fsos.che.umn.edu/courses/sp2000-ug.html

FSoS 4296 Field Study: Working With Families
(Sec 001); max crs 12; S-N only; prereq—2101, instr consent; 4-12 cr
Instructor: Goodman, William Joseph
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.
Class time: 100% discussion
Work load: 1 portfolio project
Grade: 5% in-class presentations, 5% lab work, 90% , community service
Course URL: fsos.che.umn.edu/goodman/fsos4296/default.html

FSoS 5193 Directed Study in Family Social Science
(Sec 001); max crs 6; prereq—FSoS or grad student in related field; 1-6 cr
Instructor: STAFF
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.

Finance

3-122 Carlson School of Management; 612-624-2888

Fina 4641 International Finance and Risk Managment
(Sec 001, 002); A-F only; prereq—3001; 4 cr
Instructor: Carkovic, Maria
This is a course in international finance for undergraduate students. Questions addressed in the course are as follows: (1) What determines exchange rates? (2) Why do some countries choose to have an exchange rate that floats while others prefer to peg their currency to another? (3) What leads countries to run large trade deficits that precipitate a crisis? (4) How has increasing capital market integration affected counties around the world? The purpose of this course is to provide students with a macroeconomic framework to analyze these issues and to illustrate theory with the experiences of different countries.
Class time: 70% lecture, 30% discussion
Work load: 30 pages of reading per week, 3 exams
Grade: 60% mid-semester exam(s), 40% final exam
Exam format: problems, graphs, multiple choice questions
Course URL: www.csom.umn.edu/wwwpages/faculty/mcarkovic

Finnish

205 Folwell Hall; 612-625-2080

Fin 1003 Intermediate Finnish
(Sec 001); Credit will not be granted if credit has been received for: FIN 4003; prereq—1002; 5 cr
Instructor: STAFF
This course is a "continuation" of the beginning sequence of Finnish 1001 and 1002. It will continue the fundamentals of conversational and written Finnish on a more advanced level. A heavy emphasis is given to spoken Finnish, but all four aspects of language learning are stressed: listening, speaking, reading, and writing. Its main objective is to make the student proficient in Finnish. Of particular concern is the Proficiency Examination for course credit as part of the College of Liberal Arts requirements. Therefore, daily listening exercises and journal writing are to be stressed. There will be a quiz every week. The format of the quizzes vary; they can be word tests, dictations, translations, comprehension tests. Text: "Finnish for Foreigners 2", Maija-Hellikki Aaltio, plus "Exercises 2", Aaltio. Qualified students may register for this course as Finnish 4003, for 2 credits (and lower tuition) instead of four credits.

Fin 4003 Intermediate Finnish
(Sec 001); Credit will not be granted if credit has been received for: FIN 1003, FIN 1003; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: STAFF
See the course description for Fin 1003. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Fin 1003 under the number Fin 4003 for 2 credits. Contact the department office, (612) 625-2080, for a permission number.

Fisheries and Wildlife

200 Hodson Hall; 612-624-3600

FW 1001 Orientation in Fisheries, Wildlife, and Conservation Biology
(Sec 001); A-F only; 1 cr
Instructor: Adelman, Ira R
Course Description: Survey of technical requirements and education of fisheries, wildlife, conservation biology, and related natural resource professionals; introduction to fields of work and employers; introduction to the fisheries and wildlife major and the college; career opportunities. Course goals/objectives: (1) Introduce students to fisheries, wildlife, conservation biology and related professions. To accomplish this speakers from the Minnesota Department of Natural Resources, The U.S. Fish and Wildlife Service, nature centers, private employers, the Department of Fisheries and Wildlife, and the College of Natural Resources will provide information on what they do and how to succeed as a student and a professional. (2) Suggest the background and preparation students need to get started in a natural resource profession. The emphasis is on professional preparation outside of the classroom. We will discuss employment throughout orientation. It is something that most college students don't think about soon enough. Employment is competitive, so students need to start planning right away. (3) Provide students with information that will help them find summer or permanent employment in the natural resource field. (4) Familiarize students with use of the Entomology, Fisheries and Wildlife Library. Target Audience: Fisheries, Wildlife, and Conservation Biology majors and other students interested in exploring career possibilities associated with those fields. Undergraduates.
Class time: 90% lecture, 10% discussion
Work load: 1/2 page of writing required per week; 11 papers (included in the 1/2 page of writing per week).
Grade: 100% written reports/papers

FW 2001 Introduction to Fisheries, Wildlife, and Conservation Biology
(Sec 001); prereq—Biol 1001 or Biol 1009; meets CLE req of Environment Theme; 3 cr
Instructor: Adelman, Ira R
This course introduces students to the theory and practice of conservation and management of living resources. It covers the general ecological principles applied to management of fish and wildlife including single species populations, ecosystem, and landscape approaches.Topics include the biota, habitat, and socio-political aspects of human use.The book, Song of the Dodo, and case studies are used to explore current issues in conservation. Target audience:1)Most NRES majors are required to take this course 2)majors where ecological/environmental issues are of concern may wish to take this course to enhance their professional background 3)all other majors who have a personal interest in fish and wildlife and conservation of natural resources may wish to take this course to broaden their background. Students in environmental/ecological majors should take this course in their soph or jr years or they may find some material repetitious with previous courses.Course objectives:1.Students will learn the concepts/theories/facts/principles related to fisheries, wildlife, and conservation biology.2. students will learn to understand the perspectives and values associated with these disciplines.3.Students will develop the ability to draw reasonable inferences from observations and to distinguish between fact and opinion.4.Students will improve their communication skills by participation in discussion groups and short writing assignments.
Class time: 65% lecture, 35% discussion, Lectures will summarize the high points of text chapters, expand on chapters by presenting related m
Work load: 60 pages of reading per week, 4 pages of writing per semester, 3 exams, 2 papers
Grade: 40% mid-semester exam(s), 20% final exam, 35% written reports/papers, 5% class participation
Exam format: Multiple choice and short answer, Exams will be based on information from the text books and lecture
Course URL: www.fw.umn.edu/fw2001fall/default.html

FW 4001 Biometry
(Sec 001); A-F only; prereq—Math 1031; meets CLE req of Writing Intensive; 4 cr
Instructor: Cohen, Yosef
Student may contact the instructor or department for information.
Class time: 30% lecture, 30% discussion, 40% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers
Grade: 15% mid-semester exam(s), 20% final exam, 20% written reports/papers, 10% special projects, 10% quizzes, 10% class participation, 15% problem solving
Exam format: Essay
Course URL: evolution.games.umn.edu

FW 4129 Mammalogy
(Sec 001); Same as: EEB 4129; A-F only; prereq—Biol 2012 or instr consent; 4 cr
Instructor: STAFF
Student may contact the instructor or department for information.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 2 papers
Grade: 50% mid-semester exam(s), 25% final exam, 25% written reports/papers
Exam format: Multiple choice and essay

FW 4200H Honors Seminar
(Sec 001); prereq—FW upper div honors, instr consent; meets HON req of Honors; 1 cr
Instructor: STAFF
Current topics presented by faculty/students. Lecture/discussion.

FW 4291 Independent Study: Fisheries
(Sec 001-010); max crs 5; prereq—instr consent; 1-5 cr
Instructor: STAFF
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
Class time: special projects and individual directed study
Work load: varies with the number of credits which are arranged
Grade: 100% written reports/papers, 100% written reports/papers; may have occasional exceptions

FW 4292 Special Lectures: Fisheries
(Sec 001); max crs 5; prereq—instr consent; 3 cr
Instructor: STAFF
Lectures in special fields of fisheries given by visiting scholar or regular staff member.

FW 4391 Independent Study: Wildlife
(Sec 001-007); max crs 5; prereq—instr consent; 1-5 cr
Instructor: STAFF
Individual field, library, and laboratory research in wildlife. Primarily for majors. Students work on special projects. Individual field, library and lab research in fisheries biology.
Class time: special projects and individual directed study; visitation to field sites if appropriate
Work load: varies with number of credits which are arranged
Grade: 100% written reports/papers

FW 4801H Honors Research
(Sec 001); A-F only; prereq—FW upper div honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
Independent research project supervised by faculty member.

FW 4802H Honors Research
(Sec 001); A-F only; prereq—FW upper div honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
Completion of honors thesis. Oral report.

FW 5601 Fisheries Population Analysis
(Sec 001); A-F only; prereq—[4001 or Stat 5021], Biol 3407, [Math 1192 or Math 1271]; 3 cr
Instructor: Spangler, George R
This course is intended to provide basic background for students majoring in Fisheries and Wildlife and preparing for a career in Fish and Wildlife management. Introduction to theory and methods for estimating vital statistics of fish populations. Students use microcomputers and statistical software to describe, analyze and model attributes of fish populations in case studies drawn from the literature of marine and freshwater fisheries management. The lectures and laboratory are supported by extensive resources in web format. The laboratory activity is a combination of analytical work (in microcomputer lab) and limited "hands-on" work with (wet) specimens. There may be a one-day weekend field trip.
Class time: 60% lecture, 40% laboratory
Work load: 10 pages of reading per week, 50 pages of writing per semester, 3 exams
Grade: 50% mid-semester exam(s), 30% final exam, 20% lab work
Exam format: short answer
Course URL: www.fw.umn.edu/FW5601

FW 5625 Wildlife Handling and Immobilization for Research and Management.
(Sec 001); S-N only; prereq—General biology, [grad student or vet med student or FW sr], dept consent; 2 cr
Instructor: Johnson, Mark Robert
This unique four-day course focuses on the needs of future and active wildlife professionals to understand the skills and equipment associated with wildlife capture, physical restraint, chemical immobilization, and animal processing. In addition, veterinary perspectives are provided to augment animal care, chemical immobilizaiton, and sample collection. Material includes ethical perspectives, legal responsibilities, preparing for a field operation, and most procedures involved with handling captured wildlife (marking, sample collections, body measurements, veterinary emergencies). This course is taught every April and October at the Wildlife Science Center near Forest Lake, MN. Each day involves classroom lecture/discussion and hands-on labs, including supervised chemical immobilization of captive wildlife. Departmental consent is required. Priority given to graduate students, seniors, and vet med students. Students may contact the department for more information. The students have to come to the FW office to get permission #'s to register for the closed class. The class is held in the Fall and Spring each year.

Food Science and Nutrition

225 Food Science & Nutrition; 612-624-1290

FScN 1012 Sports Nutrition
(Sec 001); 2 cr
Instructor: Brady, Linda J
This course is web-based 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. Course Intended Audience: Student athletes or other students interested in the effect of nutrition on athletic performance Instructor: Linda J. Brady, PhD; Office—330 Andrew Boss Labs; Phone: 612-624-9211; Home phone\651-647-1969; Internet: lbrady@tc.umn.edu. The FScN Department FAX number is: 612-625-5272. Course Assistant: Edward Thompson (thom0624@umn.edu). FScN mailboxes are in Room 225 FScN Building, St. Paul Campus 55108-6099. Office hours are flexible: feel free to contact me anytime by email, by phone, or make an in person appointment. Please contact me anytime with problems, but also for discussion, clarification, or further information. If you have a disability, which requires accommodation in this course, please see me as soon as possible. We will make appropriate accommodations and we will be happy to work with the Disability Services.
Course URL: www.ardilla.umn.edu/sportsnutrition/

FScN 1021 Introductory Microbiology
(Sec 001); meets CLE req of Biological Sciences/Lab Core; 4 cr
Instructor: O'Sullivan, Daniel J
This course is intended primarily for undergraduates who require a basic knowledge of microbiology and how it impacts their everyday life. It will serve as a broad introduction to the diverse world of bacteria, fungi, and viruses; their role as agents of human diseases (from flesh eating bacteria to AIDS) and how humans fight back; their roles in food spoilage, food borne diseases and how to control them; their beneficial roles in food preservation, health promotion (probiotics), preventing plant diseases, food/drug production (biotechnology), cleaning up oil spills (bioremediation). The course will also introduce the student to the basics of genetic engineering and its present and future potential roles in food, agriculture and medicine.
Class time: 60% lecture, 40% laboratory
Work load: 10-20 pages of reading per week, <10 pages of writing per semester, 3 exams, 1 papers, in class quizzes.
Grade: 35% mid-semester exam(s), 25% final exam, 10% special projects, 10% quizzes, 20% lab work
Exam format: multiple choice and short answer

FScN 1102 Food: Safety, Risks, and Technology
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: Diez-Gonzalez, Francisco
Introduction to the inherent risks and safety of the food supply and the use of public policy, and food technology to reduce those risks. The course will survey microbiological, chemical and environmental hazards, government and industry controls used to insure food safety including the new U.S. Food Safety Initiative, and public perception of those resks. The course will emphasize government regulations with respect to adulteration, food safety and misbranding. It will overview the biological, microbiological, physical and chemical deterioration of foods and will describe some of the technologies to control food spoilage. Thermal processing and irradiation as examples of the technologies used in food processing to reduce risk and assure a safe food supply. This course will focus on current food safety issues and the magnitude of the overall food safety situation. This course satisfies the CLE Citizenship and Public Ethics theme and emphasizes public policy making, critical thinking skills and internet use.
Class time: 60% lecture, 20% cctv, 20% discussion
Work load: 25 pages of reading per week, 6-8 pages of writing per semester, 2 exams, 3 papers
Grade: 30% written reports/papers, 50% quizzes, 20% class participation
Exam format: Short essays
Course URL: courses.che.umn.edu/99fscn1102-1f/

FScN 1112 Principles of Nutrition
(Sec 001); prereq—High school [biology, chemistry]; meets CLE req of Environment Theme; 3 cr
Instructor: Kurzer, Mindy Susan
The purpose of this course is to provide the student with an understanding of the facts and complexities of the science of nutrition; nutrient function;

human nutritional requirements; food sources of nutrients; critical evaluation of nutrition information; food safety; role of nutrition in chronic disease development and prevention; and nutrition and the environment. Specific topics include nutrient functions and requirements, energy expenditure, obesity and weight control, eating disorders, nutrition through the lifecycle, diet and prevention of heart disease and cancer, world food problems and nutrition and the environment. In this course, you will analyze your own food intake to determine whether it is adequate, and you will understand how to improve it. This is a science-based course, and we emphasize development of the student's ability to think independently and to critically examine nutrition issues. The format of the course is primarily lecture with some discussion. The main textbook is "Perspectives in Nutrition", 4th edition, by Wardlaw, and there are a few supplemental required readings as well. The target audience is Nutrition majors as well as non-majors, mainly undergraduates.
Class time: 90% lecture, 10% discussion
Work load: 55 pages of reading per week, 10 pages of writing per semester, 4 exams, 1 papers
Grade: 40% mid-semester exam(s), 40% final exam, 20% written reports/papers
Exam format: Multiple choice

FScN 1511 Food Animal Products for Consumers

(Sec 001); Same as: ANSC 1511; prereq—credit will not be granted if credit received for: AnSc 1511; 3 cr
Instructors: Smith, David Eugene; Addis, Paul B
This course deals with various types of animal products which are consumed by humans as food. These include beef, pork, fish, poultry, and dairy products. Course is a lecture format with some demonstration sessions.
Class time: 85% lecture, 15% laboratory
Work load: 2 exams
Grade: 66% mid-semester exam(s), 33% final exam
Exam format: Short answer

FScN 3102 Introduction to Food Science

(Sec 001); prereq—Chem 1022; 3 cr
Instructor: Vickers, Zata M
Introduction to the composition and the chemical and physical properties of foods, interaction, reaction, and evaluation of foods due to formulation, processing and preparation. Intended for students majoring in Food Science or Nutrition and others interested in the science of food preparation and processing. Students identify changes in food resulting from food preparation and processing procedures and explain these changes based on knowledge of reactions and interactions of the chemical constituents of the food product. They also explain the functions of major food ingredients in food systems. Evaluations are made on the quality of food products using sensory quality standards and objective methods of analysis. Students obtain information relating to food science from both secondary (text book) and primary (journal research articles) sources. Students produce (in lab) and understand differences in food quality resulting from variations in preparation and/or ingredients.
Class time: 40% lecture, 10% discussion, 50% laboratory
Work load: 30 pages of reading per week, 3 exams, 1 papers, 2 quizzes
Grade: 40% mid-semester exam(s), 23% final exam, 10% special projects, 12% quizzes, 5% in-class presentations, 10% lab work
Exam format: Essay and short answer

FScN 3612 Life Cycle Nutrition

(Sec 001); prereq—1112, Chem 1022; 3 cr
Instructor: Slavin, Joanne Louise **!!Outstanding Achievement Award, CHE Excellence in Research!!**
Course covers nutritional changes through the life cycle. Emphasis on national nutrition, lactation, children, teens and the elderly. Text is "Developmental Nutrition". All students present a topic during the semester. Exams are objective. Course is designed for undergraduates in nutrition.
Class time: 75% lecture, 25% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers
Grade: 50% mid-semester exam(s), 20% final exam, 10% written reports/papers, 10% , nutrition makeover
Exam format: Multiple choice

FScN 3614 Nutrition Education and Counseling

(Sec 001); prereq—1112; 2 cr
Instructor: Reicks, Marla M
The nutrition education component of this course prepares students to plan and implement effective nutrition education for specific audiences using principals of teaching and learning, child and adult education, curriculum design and evaluation. Within the framework of selected nutrition education theories, students will develop an understanding of each aspect of the design of nutrition education sessions: needs assessment; development of performance objectives; selection of instructional strategies; development of lesson plans and materials; implementation and evaluation. Students will work in groups to develop a lesson and implement it in a community setting. The counseling component will develop competency in basic counseling skills. Topics include: counselor needs/motivation, non-verbal communication, empathy (basic and advanced), identifying strengths, maintaining focus, challenging discrepancies, use of self. Emphasis is placed on building from client strengths and the focus is on learning through role-playing. The target audience for this course are undergraduate majors.
Class time: 40% lecture, 20% discussion, 40% Role playing, small group work, guest speakers
Work load: 25 pages of reading per week, 10-20 pages of writing per semester, 2 exams, Develop a lesson and teach in a community setting
Grade: 30% mid-semester exam(s), 30% final exam, 25% special projects, 5% in-class presentations, 10% class participation
Exam format: multiple choice, short answer, T/F
Course URL: courses.che.umn.edu/02fscn3614-1f/default.html

FScN 4103 World Food Problems

(Sec 001); Same as: AGRO 4103, APEC 4103; prereq—credit will not be granted if credit received for: Agro 4103, ApEc 4103, CAPS 4103; jr or sr or grad; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; 3 cr
Instructors: Hardman, Leland L; Senauer, Benjamin H; Schafer III, Henry William
This course provides of a multi-disciplinary look at problems that exist between population, food supply, hunger and resource sustainability. The basics of food production, nutrition and food safety are discussed. Lectures, readings, and small group discussions are used to show the conflicting views on education and development assistance strategies and the role of science and technology as they encounter the cultural and ethical values of people in the various countries of the world. The course emphasizes the critical roles of government officials, international assistance agencies, international research and outreach centers, and the private business sector in finding solutions to these complex problems. Students can enroll in any of the three cross-listed courses (Agro 4103, ApEc 4103 or FScN 4103). Previous background in any of the disciplines is not required, but because it is an upper division course, students are expected to develop advanced level presentations and assignments.
Class time: 60% lecture, 25% discussion, 15% Videos, slide sets, tapes, etc.
Work load: 30-40 pages of reading per week, Weekly homework assignments
Grade: 30% , final paper; 70% weekly homework assignments

FScN 4111 Food Chemistry

(Sec 001); prereq—3102, BioC 3021; 3 cr
Instructor: Fulcher, R Gary **!!Land Grant Chair, General Mills/Cereal!!**
The course is intended for senior undergraduate and graduate students in Food Science and Nutrition. It focuses on the structure and chemistry of food components, from raw to highly processed materials, and the chemical and physical changes they undergo during harvesting, processing, storage, and distribution. While biochemistry deals primarily with mechanisms in living organisms, food chemistry deals with the effects of altering havested biological materials to provide food products. It is a unique combination of inorganic and organic chemistries, enzymology, physics, mathematics and kinetics, microbiology, and psychology. Students are expected to develop an integrative approach to food products, and to further explore the interactions among food components and their environment(s). Students will explore the composition and interactions of major and minor components, raw and processed animal and plant products, and learn to identify key alterations to these materials and reactions during processing, including heating, drying, enzymatic modification. Texts: none required, but the following are recommended: Fennema, O (Ed) "Food Chemistry" (3rd Edition). and DeMan, J ,"Principles of Food Chemistry" (3rd Edition).
Class time: 85% lecture, 10% discussion, 5% Demonstrations
Work load: 2 exams, 2 papers, 3 quizzes
Grade: 30% mid-semester exam(s), 30% final exam, 20% written reports/papers, 20% quizzes
Exam format: Essay

FScN 4131 Food Quality

(Sec 001); prereq—4111, 4121; 3 cr
Instructor: Diez-Gonzalez, Francisco
This course is focused to study the factors that influence food quality and presents management systems applied in the processing and distribution of foods to achieve quality standards. It covers quality systems from product development to customer education, with a particular emphasis on food

safety. Topics presented include: Risk Assesment, Good Manufacturing Practices and Hazard Analysis and Critical Control Point systems for control of microorganisms; design of products and processing operations according to food sanitation principles; use of rapid screening methods for quality and safety assurance; statistical methods applied to quality control; quality assurance systems based on Total Quality Management; food laws and regulations relevant to food quality: ISO9000 certification, and the role of retailers and consumers on food quality. This course is intended primarily for upper division undergraduates majoring in food science.
Class time: 60% lecture, 10% cctv, 30% discussion
Work load: 30 pages of reading per week, 20 pages of writing per semester, 2 exams, 2 papers
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/papers, 10% quizzes, 10% in-class presentations, 20% class participation
Exam format: Short essay
Course URL: courses.che.umn.edu/

FScN 4291 Independent Study
(Sec 001); max crs 4; prereq—Undergrads, instr consent; 1-4 cr
Instructor: STAFF
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 4331 Food Process Engineering I
(Sec 001); max crs 5; A-F only; prereq—3102, Math 1272, [Phys 1102 or Phys 1302]; 3 cr
Instructors: Smith, David Eugene; Reineccius, Gary A
This course is intended primarily for food sciences undergraduate majors. Topics covered include: Mass balance, energy balance, and heat transfer with emphasis on principles and specific food applications such as, mixing, milling, drying, and freezing,
Class time: 40% lecture, 10% discussion, 50% laboratory
Work load: 2-3 exams, 6 papers, Lab reports which involve writing, calculation, etc.
Grade: 40% mid-semester exam(s), 20% final exam, 40% lab work
Exam format: Problems

FScN 4612 Human Nutrition
(Sec 001); prereq—1112, Chem 1022, Phsl 3051; 3 cr
Instructor: Slavin, Joanne Louise **!!Outstanding Achievement Award, CHE Excellence in Research!!**
Course covers normal human nutrition and nutrition and chronic diseases. We cover macronutrients, vitamins, and minerals, as well as fluids and phytochemicals. Emphasis on the physiological basis for nutrition. Sports nutrition topics are emphasized. Topics regarding heart disease, cancer, osteoporosis, diabetes are discussed. Final lectures are on phytochemicals and nutrient supplement. Designed for undergraduates in nutrition. Non-majors are welcome.
Class time: 75% lecture, 25% discussion
Work load: 50 pages of reading per week, 25 pages of writing per semester, 3 exams, 2 papers, 1 presentation
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/papers, 10% quizzes, 20% in-class presentations, 10% class participation
Exam format: depends on number of students

FScN 5441 Introduction to New Product Development
(Sec 001); prereq—4111, 4331; 2 cr
Instructor: Sapakie, Sidney F
This course is designed to provide students with practical knowledge and skills used in product development. It is intended primarily for juniors, seniors and graduate students in Food Science and Nutrition, but should also be of value to Engineering and Business students interested in the consumer products industry. Material covered includes: processes and systems for product development, idea generation, consumer testing, criteria for success and failure of new products, etc. Marketing, sales and financial analysis are addressed briefly to understand how the business, consumer and technical issues are interdependent. The course is taught primarily through case studies and class discussion. Senior industry practitioners provide guest lectures on a vaiety of food product development cases. Class participation is strongly encouraged as the students build on each other's ideas. An important part of the course is a small group project in which teams develop a new product on paper from idea generation through market introduction.
Class time: 30% lecture, 40% discussion, 30% Guest speakers, case studies
Work load: 5-10 pages of reading per week, 2 exams, 1 group project
Grade: 20% mid-semester exam(s), 40% final exam, 30% special projects, 10% class participation
Exam format: Essay

FScN 5461 Food Packaging
(Sec 001); prereq—1102, 3102, Phys 1102 or Phys 1302; 2 cr
Instructor: Willson, Karl S
This fast-moving course presents the principles, procedures and materials of packaging as they apply to foods. Information presented is applicable to retail, bulk and institutional products. Content includes product protection, interactions between products and packages, testing, regulations and more. Limitations and failure modes of packages, and their potential contribution to product failure, are also covered. The designated textbook will remain a useful reference long after completion of the course. Presentations are primarily by lecture, with some demonstrations, and open discussion is welsome. FScN 5461 is designed for all food scientists and nutritionists, whether students or practitioners, concerned about maintaining food quality, nutrition and performance from manufacture to consumption.
Class time: 90% lecture, 10% discussion
Work load: 20 pages of reading per week, 1 exams, 1 papers, 4 in-class quizzes
Grade: 40% final exam, 20% written reports/papers, 40% quizzes
Exam format: multiple choice and short answer

FScN 5621W Nutrition and Metabolism
(Sec 001); prereq—4612, BioC 3021, Phsl 3051; meets CLE req of Writing Intensive; 4 cr
Instructor: Brady, Linda J
Physiological function and metabolic fate of carbohydrates, lipids, and proteins and their involvement in fulfilling energy needs for maintenance, growth, and work. For seniors and first year graduate students in life sciences.
Class time: 50% lecture, 50% discussion
Work load: 20 pages of reading per week, 20-30 pages of writing per semester, 0 exams, 3 papers, 3 papers, two during the term and one final paper
Grade: 40% written reports/papers, 20% class participation, 40%, Homework
Exam format: no exams, just papers and homework
Course URL: www.agricola.umn.edu/fscn5621

Forest Resources
115 Green Hall; 612-624-3400

FR 1001 Orientation and Information Systems
(Sec 001); A-F only; prereq—Prev low-level computer usage; 1 cr
Instructors: Splett, Philip John; Ek, Alan Ryan
This course is designed for students entering the Department of Forest Resources curricula. It will provide information about Forest Resources, Recreation Resource Management, Urban Forestry majors, career options, course planning, internship and summer job information, mentoring, and alumni contacts. A substantial portion of this course will also provide students an overview of information technology tools as they will be applied in later curricula coursework. The College Computing Laboratory will be the home base for a portion of the class. Use of epuipment and software available in the lab will be emphasized. Both Macintosh and Windows machines will be utilized. A low level of prior computer usage is assumed. The primary topics to be covered include the role of information technology in today's workplace, computer hardware basics, getting around GUIs, navigating the net, preparing documents, spreadsheet calculations, and using University of Minnesota on-line information sources including Lumina and periodical indexes.
Class time: 20% lecture, 10% discussion, 60% laboratory, 10% Field Trip
Work load: 10—20 pages of reading per week
Grade: 15% written reports/papers, 35% special projects, 5% class participation, 45% lab work

FR 1101 Dendrology
(Sec 001); 3 cr
Instructor: Vogt, Carl Eugene
Identification nomenclature, classification, and distribution of common and important forest trees and shrubs. Use of keys and field and lab methods of identification. Offered every fall.

FR 3104 Forest Ecology
(Sec 001); Credit will not be granted if credit has been received for: FR 5104; A-F only; prereq—two biol courses, chem course; 4 cr
Instructor: Carey, Eileen V
The form and function of forests as ecological systems; characteristics and dynamics of species, populations, communities, landscapes and ecosystem processes with examples applying ecology to forest management. Assumes a knowledge of basic botany/plant biology. Weekly discussions focus on

research topics in forest ecology, exercises applying course concepts, and current issues in forest resource management. There is one required weekend field trip. Offered every fall.
Class time: 60% lecture, 30% discussion, 10% special topics/presentations
Work load: 20 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 3 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: short answer

FR 3114 Forest Hydrology and Watershed Management
(Sec 001); prereq—[Biol 1009, Chem 1001, Phys 1001] or instr consent; 3 cr
Instructor: Brooks, Kenneth N
The form and function of forests as ecological systems; characteristics and dynamics of species, populations, communities, landscapes and ecosystem processes with examples applying ecology to forest management. Assumes a knowledge of basic botany/plant biology. Weekly discussions focus on research topics in forest ecology, exercises applying course concepts, and current issues in forest resource management. There is one required weekend field trip. Offered every fall.
Class time: 80% lecture, 20% discussion
Work load: 30 pages of reading per week, 4 pages of writing per semester, 3 exams, 5 problem solving exercises, 2 exams during semester
Grade: 50% mid-semester exam(s), 25% final exam, 25% problem solving
Exam format: Combination, multiple choice, short essay

FR 3131 Geographical Information Systems for Natural Resource Analysis
(Sec 001); A-F only; prereq—Jr; 3 cr
Instructors: Jenks, Andrew Carl; Bolstad, Paul V
Introduction to GIS focusing on natural resources. Data structures, sources, collection, and quality. Lab exercises introducing geodesy, map projections, spatial analyses, and cartographic modeling. Offered every fall (and an occasional spring evening class offering).

FR 3251 Role of Renewable Natural Resources in Developing Countries
(Sec 001); Same as: FR 5251, LAS 3251; A-F only; prereq—credit will not be granted if credit received for: 5251; 1 cr
Instructor: Current, Dean Alan
International perspectives on resource use in developing countries, including the integration of natural resource issues with social, economic, and policy considerations. Overviews of agriculture, forestry, agroforestry, non-timber forest products, water resources, certification, and development issues, including Latin American case studies. Offered every fall.

FR 3293 Directed Study Experience
(Sec 001-029); max crs 15; 3 repeats allowed; prereq—instr consent; 1-5 cr
Instructor: STAFF
Student conducts a study or project on a topic of personal interest in consultation with a faculty member. Course is documented by initial proposal and reports of accomplishments. Offered every fall.
Class time: 10% lecture, 90% Special study/ project
Work load: 10 pages of writing per semester, 1 papers, Varies with individual.
Grade: 90% written reports/papers, 10% problem solving
Exam format: No exams
Course URL: www.ncr.umn.edu/FR

FR 4200H Honors Seminar
(Sec 001); A-F only; prereq—FR upper division honors, instr consent; meets HON req of Honors; 1 cr
Instructor: STAFF
Lectures and discussions on current topics presented by faculty and students.
Class time: 70% lecture, 30% discussion
Work load: 15 pages of writing per semester, 1 papers
Grade: 70% written reports/papers, 30% class participation
Course URL: www.CNR.umn.edu/FR

FR 4801H Honors Research
(Sec 001); A-F only; prereq—FR upper division honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
First semester of an independent research project supervised by a faculty member.
Class time: 10% lecture, 10% discussion, 80% Special project/study
Work load: 30 pages of reading per week, 10-20 pages of writing per semester, 1 papers, Other project findings/synthesis
Grade: 80% written reports/papers, 10% class participation, 10% problem solving
Exam format: n/a
Course URL: www.CNR.umn.edu/FR

FR 4802H Honors Research
(Sec 001); A-F only; prereq—FR upper division honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
Students complete honors thesis and present an oral report
Class time: 10% lecture, 10% discussion, 80% Special project/study
Work load: 30 pages of reading per week, 10-20 pages of writing per semester, 1 papers, Other project findings/synthesis
Grade: 80% written reports/papers, 10% class participation, 10% problem solving
Exam format: N/A
Course URL: www.CNR.umn.edu/FR

FR 4894
(Sec 001-027); prereq—instr consent; 1-3 cr
Instructor: STAFF
Student selects and conducts a research project on topic of personal interest under guidance of a faculty mentor. The course is documented by an initial proposal and reports of accomplishment.
Class time: 10% lecture, 10% discussion, 80% Directed research
Work load: 30 pages of reading per week, 10-20 pages of writing per semester, 1 papers, Directed research findings/synthesis
Grade: 80% written reports/papers, 10% class participation, 10% problem solving
Exam format: n/a
Course URL: www.CNR.umn.edu/FR

FR 5104 Forest Ecology
(Sec 001); Credit will not be granted if credit has been received for: FR 3104; A-F only; prereq—[biol course, chem course, grad student] or instr consent; 4 cr
Instructor: Carey, Eileen V
The form and function of forests as ecological systems; characteristics and dynamics of species, populations, communities, landscapes and ecosystem processes with examples applying ecology to forest management. Assumes a knowledge of basic botany/plant biology. Weekly discussions focus on research topics in forest ecology, exercises applying course concepts, and current issues in forest resource management. There is one required weekend field trip. Offered every fall.
Class time: 60% lecture, 30% discussion, 10% special topics/presentations
Work load: 20 pages of reading per week, 30 pages of writing per semester, 2 exams, 3 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: short answer
Course URL: www.CNR.umn.edu/FR

FR 5114 Forest Hydrology and Watershed Management
(Sec 001); prereq—Grad student or instr consent; 3 cr
Instructor: Brooks, Kenneth N
The form and function of forests as ecological systems; characteristics and dynamics of species, populations, communities, landscapes and ecosystem processes with examples applying ecology to forest management. Assumes a knowledge of basic botany/plant biology. Weekly discussions focus on research topics in forest ecology, exercises applying course concepts, and current issues in forest resource management. There is one required weekend field trip. Offered every fall.

FR 5131 Geographical Information Systems for Natural Resource Analysis
(Sec 001); A-F only; prereq—Grad student or instr consent; 3 cr
Instructors: Jenks, Andrew Carl; Bolstad, Paul V
Introduction to GIS focusing on natural resources. Data structures, sources, collection, and quality. Lab exercises introducing geodesy, map projections, spatial analyses, and cartographic modeling. Offered every fall (and an occasional spring evening class offering).

FR 5228 Advanced Topics in Assessment and Modeling of Forests
(Sec 001); A-F only; prereq—4218, Math 1272, Stat 5021; 3 cr
Instructor: Burk, Thomas Edward **!!Alumni Service Award, College of Natural Resources!!**
Application of recently developed mathematics, computer science, and statistics methodologies to natural resource functioning, management, and use problems. Specific topics, software, and methodologies vary.

FR 5251 Role of Renewable Natural Resources in Developing Countries
(Sec 001); Same as: FR 3251, LAS 3251; A-F only; prereq—credit will not be granted if credit received for: 3251; sr or grad or instr consent; 1 cr
Instructor: Current, Dean Alan
International perspectives on resource use in developing countries, including the integration of natural resource issues with social, economic, and policy considerations. Overviews of agriculture, forestry, agroforestry, non-timber forest products, water resources, certification, and development issues, including Latin American case studies. Offered every fall.

FR 5264 Advanced Forest Management Planning
(Sec 001); prereq—4471 or instr consent; 2 cr
Instructor: Hoganson, Howard M
Applied models for forest planning to integrate forest resource conditions and uses. Scales range from tactical stand-level management to strategic forest-wide and landscape-level planning and regional timber supply analysis. Understanding optimization models and heuristic techniques as tools for trade-off and sensitivity analyses of alternative management policies and goals. Integrating sustainable timber production with desirable future conditions and spatial structure or biodiversity objectives. Practical problems and case studies involving recent large-scale applications. Offered summer and fall.

FR 5412 Advanced Remote Sensing
(Sec 001); prereq—4262; 3 cr
Instructor: Bauer, Marvin E
Advanced Remote Sensing povides graduate and advanced undergraduate students with a fundamental and working knowledge of biophysical-quantitative remote sensing. The theoretical basis and practical aspects of this approach to remote sensing are addressed, including sections on energy-matter interactions, radiation measurements and sensors, and digital image processing and analysis. Lectures and reading asssignments will be supplemented by problems and exercises providing hands-on experience in working with digital remote sensing data, models and image processing.
Class time: 80% lecture, 20% laboratory
Work load: 40 pages of reading per week, 30 pages of writing per semester, 3 exams
Grade: 35% mid-semester exam(s), 20% final exam, 30% special projects, 5% in-class presentations, 10% problem solving
Exam format: Essay

French
260 Folwell Hall 612-624-4308

Fren 0001 Reading French in the Arts and Sciences
(Sec 001); S-N only; 0 cr
Instructor: STAFF
This course is designed solely to impart a basic reading knowledge of the French language. Full time is devoted to intensive reading and translation of a variety of texts. Since this approach deals only with the reading aspect of the language, there are no sessions for oral-aural drills and composition, and great skill can be acquired in a short time. At the end of one semester a reading examination in French is given. Students successfully completing the course should obtain the Language Certification form from the Graduate School and present it to the Department of French and Italian for signature. Must be taken S-N.
Class time: 20% lecture, 60% discussion
Work load: 30 pages of reading per week, 1 exams, regular translation exercises
Grade: 100% final exam
Exam format: single answer, translation of passages

Fren 1001 Beginning French
(Sec 001-010); 5 cr
Instructor: STAFF
This course is intended for students with no previous study of French, or students who have not studied French in recent years. If you have more than two years of high school French completed within the last year, 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. Topics include everyday issues (shopping, directions, family, housing, etc.). The text "Deux Mondes"4th ed. is accompanied by a workbook and CDs that are designed to be used by students outside of class. In this text students will cover material from "PremiFre 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 speaking and listening, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.
Class time: 100% Whole-class/pair-group activities.
Work load: 12 exams, 5 papers, Exams: 5 written, 5 oral, 1 mid-term, and 1 final.
Grade: 10% mid-semester exam(s), 15% final exam, 12% written reports/papers, 50% quizzes, 13% , homework
Exam format: Written production, vocabulary, and grammar.

Fren 1002 Beginning French
(Sec 001-005); prereq—1001 or equiv; 5 cr
Instructor: STAFF
Fren 1002 is intended for stduents who have completed Fren 1001 or the equivalent. In this course students build on the communicative speaking, listening, reading and writing skills acquired in first-semester French. Topics covered in this course include everyday issues (student life, travel, health, environment). The text "Deux Mondes" 4th ed. is accompanied by a workbook and CDs that are designed to be used by students outside of class. In this text students will cover 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 speaking and listening, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.
Class time: 100% Class interactions/group work
Work load: 12 exams, 5 papers, Exams: 5 written, 5 oral, 1 mid-term and 1 final.
Grade: 10% mid-semester exam(s), 15% final exam, 15% written reports/papers, 20% quizzes, 25% , Written Exams; 15% Oral Exams
Exam format: Combination of multiple-choice questions and production of sentence-level writing to demonstrate kno

Fren 1003 Intermediate French
(Sec 001-013); prereq—1002 or Entrance Proficiency Test; 5 cr
Instructor: STAFF
This course is designed for students who have completed Fren 1002 or 1022 with a C- or better or who have successfully passed the Entrance Proficiency Test for this level. In this course students review language structures acquired in beginning French. Students extend their speaking, writing, listening, reading skills using cultural and literary materials. Topics covered in this course include youth, housing issues, telecommunications and the media. The text "Interaction" 5th ed. is accompanied by a workbook and CDs as well as a reading assistant designed to be used by students outside of class. In this text students will cover material from Ch. 1 through Ch. 5. 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.
Class time: 100% Class Discussions, Group work
Work load: 8 exams, 5 papers, Exams: 4 written, 3 oral and 1 written final.
Grade: 15% final exam, 27% written reports/papers, 13% quizzes, 30% , Written Exams; 15% Oral Exams
Exam format: Production of sentences/paragraphs to demonstrate knowledge of grammar and vocabulary.

Fren 1004 Intermediate French
(Sec 001-008); prereq—1003 or Entrance Proficiency Test; 5 cr
Instructor: STAFF
This course is for those who have successfully passed Fren 1003 with a C- or better or have passed the EPT for this level. This course continues the building of speaking, listening, reading and writing skills acquired during the first three semesters of French. Emphasis is placed on reading and writing. Contemporay, historical and literary perspectives on topics such as cinema, education, the Francophone world are approached in this course. Students will participate regularly in conversational activities, small group work and role-plays. The text "Interaction" 5th ed. is accompanied by a workbook and CDs as well as a reading assistant designed to be used by students outside of class. In this text students will cover material from Ch. 6 through Ch. 10. Expect an average of 2 hours of outside preparation for each class session hour. Students enrolled in this course will have the opportunity to take the Graduation Proficiency Test (GPT) during the second half of the term.
Class time: 100% Class Discussions/Group Work
Work load: 7 exams, 8 papers, Papers: 4 Compositions and 4 Journals
Grade: 30% written reports/papers, 10% class participation, 25% , Written Quizzes; 20% Written Exams; 15% Orals
Exam format: Production of sentences/paragraphs to demonstrate knowledge of grammar and vocabulary.

Fren 1022 Accelerated Beginning French
(Sec 001-008); prereq—2 or more yrs high school French; 5 cr
Instructor: STAFF
This course is intended for students who have previously studied French in high school or at a community college, or who are transfer students. The course begins with an accelerated review of Fren 1001 (Ch. prTliminaire through Ch. 6 of "Deux Mondes") followed by material covered in Fren 1002 (Ch. 7 through Ch. 13 of this same text). Upon entering this course students should be familiar with basic vocabulary, present and past tenses. The text "Deux Mondes" 4th ed. is accompanied by a workbook and CDs 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 speaking and listening, class attendance is fundamental. Expect an average of 1.5 hours of outside preparation for each class session hour.
Class time: 100% Whole-class/small-group work
Work load: 13 exams, 4 papers, Exams: 7 written, 5 oral and 1 final written exam.
Grade: 15% final exam, 17% written reports/papers, 18% quizzes, 35% , Written exams; 15% Oral exams
Exam format: Combination of multiple-choice items and writings of sentences to demonstrate knowledge of vocabular

Fren 3014 French Phonetics
(Sec 001, 002); prereq—1004; 2 cr
Instructor: STAFF
This course will focus on both the theoretical and practical aspects of French pronunciation, with a strong emphasis on improving pronunciation. In the theoretical portion of the course, the major aspects of French pronunciation will be examined, with particular attention given to areas of contrast between French and English pronunciation. Students will learn to use symbols from the International Phonetic Alphabet in order to do phonetic transcription, i.e. representing French sounds with phonetic symbols. Another important theoretical component is learning of rules governing the correspondence between written letters and their pronunciation. In the practical portion of the course, students will be given extensive pronunciation practice so that they may identify and eliminate errors in their own pronunciation. NOTE: This is NOT a course in French conversation. This course is designed for non-native speakers of French and is a required course for students completing a French major under semesters. However, students with excellent pronunciation skills may gain exemption from this requirement by passing a practical pronunciation test (see the department for test information).
Class time: 30% lecture, 20% discussion, 50% practical exercises in pronunciation
Work load: 20-25 pages of reading per week, 3 exams, submitting 7 tapes with dialoques (for a grade!)
Grade: 20% mid-semester exam(s), 20% final exam, 25% class participation, 35% , 7 recorded dialogues
Exam format: multiple choice, some essay questions, and oral part

Fren 3015 Advanced French Grammar and Communication
(Sec 001-004); prereq—1004 or equiv or instr consent; 4 cr
Instructor: STAFF
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 reading, writing, and textual analysis. In 3015, students will develop skills in a variety or writing forms, such as the portrait, description, narration and explication de texte. Course requirements include exams as well as regular writing assignments, which usually involve at least one rewriting. There will be oral practice (pronunciations) and dictations. Course programs may also include translation, conjugation quizzes and specialized grammar exercises, as well as the textual analysis of short stories, recent news articles, and films.
Class time: 100% Language instruction
Work load: 10 pages of reading per week, 10 pages of writing per semester, 5 exams
Grade: 20% mid-semester exam(s), 50% final exam, 30% written reports/papers
Exam format: Grammar exercises, essays

Fren 3016 Advanced French Composition and Communication
(Sec 001, 002); prereq—3015 or equiv or instr consent; 4 cr
Instructor: STAFF
Advanced study of grammar in context; emphasis on writing for varied communicative purposes, reading for style and content, translation. Sequel to Fren 3015. Five graded compositions (approx. 2 pages each) representing various written genres (e.g. conte, recit, explication de texte, essai). Two step composition process (instructor indicates changes needed for final version) Past tenses (passe compose and passe simple, imparfait, plus-que-parfait); future and conditional; subjunctive; reflexive verbs, passive voice; indirect discourse. Written exams on grammar and reading. Note: students should have at least a B in 3015 before going on to 3016 in order to succeed in the course.
Class time: 100% Language instruction
Work load: 10 pages of reading per week, 10 pages of writing per semester, 4 exams
Grade: 20% mid-semester exam(s), 40% final exam, 20% written reports/papers, 20% quizzes
Exam format: Grammar exercises, essay

Fren 3018 French Oral Communication
(Sec 001); prereq—3014, 3015; 3 cr
Instructor: Mougel, Patricia Monique
In this course students will do intensive work in listening comprehension and oral expression by exploring current events in France and the francophone world. The main goal for the course is improvement of listening and speaking skills through the exploration of current events. Secondary goals include vocabulary expansion and a greater awareness of stylistic variation in French. Intensive practice in listening comprehension will be provided through the use of authentic audio and video recordings with a focus on current events, and other multi-media materials to be used in class and outside of class. Students will receive regular practice in oral expression through discussion of audio-visual and web-based documents on current events, and participation in role-plays. They will work towards increased grammatical and socio-linguistic accuracy through the study of vocabulary, stylistic variation, and selected grammatical points. Note: Fren 3015 and Fren 3014 (Phonetics) are prerequisites for this course; if you have not already taken Fren 3014, you may take it concurrently with this course.
Class time: 15% lecture, 50% discussion, 35% Small group activities
Work load: 5-7 hours/week
Grade: 20% final exam, 20% special projects, 15% in-class presentations, 20% class participation, 25% , Outside of class listening practice

Fren 3101W Introduction to French Literature
(Sec 001-003); prereq—3015 or equiv; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course is an introduction to literature and methods of literary analysis for students preparing a major or minor in French. In it, students will learn to identify the salient features of three major genres, to apply techniques of close textual reading, and to write critical analyses of poetry, prose fiction, and plays. 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. The principal text, "Poemes, pieces, proses: Introduction a l'analyse de textes litteraires francais" by Schofer, Rice, and Berg, will be supplemented by additional readings.

Fren 3181 Mapping Enlightenment in 17th- and 18th-Century French Prose
(Sec 001); prereq—3101; 3 cr
Instructor: Brewer, Daniel
This course will investigate and assess the intellectual movement and historical period known as the Enlightenment. Working through representative texts of major French Enlightenment figures (including Descartes, Diderot, Montesquieu, Rousseau, and Voltaire), the course will also consider the development of institutions, social spaces, and cultural practices that served to promote Enlightenment. We will be particularly interested in examining how new forms of 'enlightened' subjectivity take shape in cultural consciousness during this period, involving a subject represented as rational, knowing, social, pleasure-seeking, cosmopolitan, empowered, and networked. We will also evaluate the legacy of Enlightenment values in the present day.
Class time: 40% lecture, 60% discussion
Work load: 40 pages of reading per week, 15 pages of writing per semester, 2 exams, 5 papers
Grade: 15% mid-semester exam(s), 20% final exam, 35% written reports/papers, 10% special projects, 10% in-class presentations, 10% class participation
Exam format: essay

Fren 3340 Topics in Modern French Literature
(Sec 001); max crs 9; 3 repeats allowed; prereq—3101; 3 cr
Instructor: Sivert, Eileen B
A study of the theater in nineteenth-century France, from the early melodramas through Romantic Theater and Musset's ThTGtre dans un fauteuil, concluding with a kind of counter theater at the end of the century.

We will look at staging, at the rapport between the theater and its public, at the importance of political and social history on theatrical production, and especially at some very modern characteristics of nineteenth-century theater even before the appearance of Ubu Roi. Film versions of some of the plays will be shown and studied.
Class time: 15% lecture, 15% cctv, 70% discussion
Work load: 50-75 pages of reading per week, 12-15 pages of writing per semester, 2 exams, 2 papers, Class presentations, group work
Grade: 15% mid-semester exam(s), 15% final exam, 40% written reports/papers, 10% quizzes, 10% in-class presentations, 10% class participation
Exam format: Essay

Fren 3501 Structure of French: Phonology
(Sec 001); prereq—credit will not be granted if credit received for: 5501; 3014, 3015, Ling 3001 or instr consent; 3 cr
Instructor: Kerr, Betsy Jean
The first of a two-semester sequence on the linguistic description of the French language. Advanced study of French pronunciation/phonetics. Students must have already taken Fren 3014 or its equivalent, or have the instructor's premission. Course text: Tranel,"The Sounds of French." The text is a detailed treatment (in English) of all aspects of the sound system of French. Class lecture and discussion, assignments and tests in French. Material is often very detailed and requires memorization of complex rules, such as those governing deletion of schwa or 'mute e', liaison, or the realization of mid-vowels. This course is more theoretical than practical in its orientation; i.e., there are no practical exercises for the purpose of improving one's accent (see Fren 3014 for that). Regular homework assignments verifying mastery of readings, corrected in class. Comparison of English and French phonetics. Correspondence between orthography and pronunciation. Some attention to stylistic, regional, and free variation in French pronunciation. Some time will be spent examining oral texts for verification of the description presented in Tranel and other standard treatments. Especially recommended for students intending to teach French.
Class time: 25% lecture, 75% discussion
Work load: 25 pages of reading per week, 4 exams, 10 to 15 assignments (application exercises)
Grade: 20% final exam, 20% problem solving, 60% , 3 exams
Exam format: short answer, problems

Fren 3601 French Civilization and Culture I
(Sec 001, 002); prereq—3015; meets CLE req of International Perspect Theme; 3 cr
Instructor: Smith, Alan Kim
In this course, we will study major cultural, social and historical currents that shape the evolution of French society from the early Middle Ages to the Baroque. Rather than attempt a global treatment of this vast subject, our discussions will concentrate on close readings of exemplary texts, artwork and historical issues. We will frame these readings according to a number of cultural problems and tropes, such as feudalism, the emergence of a private sphere, allegorical representation, Romanesque and Gothic styles, Scholasticism, Humanism, absolute monarchy, cartesian subjectivity, and the tension between neo-classical and baroque movements, to name just a few. Classes will combine independent projects with review and discussion of the major developments.

Fren 4101W Seminar in French Studies
(Sec 002); prereq—Completion of all pre-elective requirements for major or permission of DUS; meets CLE req of Writing Intensive; 3 cr
Instructor: Preckshot, J E
Intended for advanced French majors, this course has a dual function: to introduce students to 20th-century theoretical approaches to reading literature and culture and to help them perfect analytical writing skills. The course paper satisfies the senior project requirement. Course readings will include seminal essays from major schools of thought including structuralism, marxist theories, psychoanalysis, post-structuralism, postcolonial theory and cultural studies. The course will expose the fundamental assumptions of these theories, their implications and respective limitations. Students will design an individual research project, which they will develop in consultation with the instructor and through peer review. As this is a seminar, a high degree of active participation is expected. The course will be conducted in French, and although no theoretical knowledge will be assumed, students will be expected to have taken several advanced major courses.
Class time: 40% lecture, 30% discussion, 30% Group Activities/presentations
Work load: 30-40 pages of reading per week, 2 papers

Fren 4970 Directed Readings
(Sec 001); max crs 9; 9 repeats allowed; prereq—instr consent; 1-4 cr
Instructor: STAFF
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.

French and Italian
260 Folwell Hall 612-624-4308

Frit 3802 Cinema and Realism
(Sec 001); 3 cr
Instructor: STAFF
This course examines French poetic realism, relating it to two other periods of realist film, Italian Neorealism and American film noir. Taught in English. Knowledge of French helpful but not necessary.

Frit 5999 Teaching of French and Italian: Theory and Practice
(Sec 001); 3 cr
Instructor: Mougel, Patricia Monique
This course is designed primarily for new graduate students who will be teaching language courses in the Department of French and Italian, but is open to advanced undergraduates as well. The course is taught primarily in English. Course goals are both theoretical and practical: 1) To understand language acquisition theory as applied to foreign language instruction and the current context of foreign language instruction at the college level. 2) To gain a better understanding of the Natural Approach, including both its theoretical foundations and its practical implementation. 3) To gain a better understanding of the processes involved in learning and teaching a foreign language and its culture(s) with respect to each of the four skills (reading, writing, listening, speaking). 4) To understand how current theory translates into practice through various practical activities. 5) To acquire a critical, reflective attitude about oneÆs own teaching. Assignments include the following: course readings (80-100 pages/week), reports of several class observations, journals, preparation of teaching and testing activities (pedagogical materials portfolio), summaries of professional articles and a final oral presentation on a topic of interest to the student.
Class time: 40% lecture, 60% discussion

General College
25 Appleby Hall 612-625-3339

GC 0712 Introductory Algebra, Part I
(Sec 001, 002); prereq—[4 cr equiv]; GC math placement; 0 cr
Instructor: STAFF
Type: Lecture, class discussion, and group work. Purpose: For students who need a brief review of arithmetic before studying algebra and who would like to study at a slower pace than that of GC 0721. Along with 0713, 0712 covers the concepts and procedures of a first course in algebra at a level of difficulty and abstraction that is geared for students enrolled at a major research university. Also serves as a safety net for students who have difficulty in 0721 or 0731. Prerequisite: Skill with whole numbers. Content: Behaviors that will increase the probability of being successful in mathematics courses. Properties, concepts, and procedures of arithmetic, fractions, percents, unit conversions, and simple geometric figures; signed numbers, algebraic expressions, equations, inequalities, and word problems. Time (hours/week) Class: 4, Reading: 1, Writing: 1, Studying: 2, Homework: 6 Homework: Read text (not all material covered in lectures), work 20-50 problems each day. Exams: Quiz each week; six 50 minute closed-book exams; two hour comprehensive closed-book final. Next course: Prepares you for GC 0713 "Introductory Algebra: Part II". For more information see www.gen.umn.edu/faculty staff/robertson/
Class time: 50% lecture, 50% discussion
Work load: 40 pages of reading per week, 6 exams
Grade: 60% mid-semester exam(s), 20% final exam, 10% quizzes, 10% problem solving
Exam format: Problems to solve.

GC 0716 Introductory Algebra, Part I (Computer)
(Sec 001); prereq—[4 cr equiv]; =0616, =0621, =0712, =0721, =0722, =1435; GC math placement; BC; 0 cr
Instructor: STAFF
Type: Computer mediated instruction where students learn new material using multi-media computer software. The instructor helps students individually during the class and does not lecture. See GC 0712 for a traditional lecture/discussion version of this course. Purpose: For students who need

a very brief review of arithmetic before studying algebra and who would like to study algebra at a slower pace than that of GC 0721. Along with 0717, 0716 covers the concepts and procedures of a first course in algebra at a level of difficulty and abstraction that is geared for students enrolled at a major research university. Also serves as a safety net for students who have difficulty in 0721 or 0731. Prerequisite: Skill at working problems involving whole numbers. Content: Properties, concepts, and procedures of fractions, percents, unit conversions, simple geometric figures, signed numbers, algebraic expressions, equations, inequalities, and word problems. Time: (hours/week) Class: 4, Reading: 1, Writing: 1, Studying: 2, Homework: 6. Homework: Read text (not all material covered in lectures), work 20-50 problems each day. Exams: Quiz each week. Six 50 minute closed-book exams; two hour comprehensive closed-book final. Exams are problem-oriented (e.g., "Solve this equation") Next course in sequence: GC 0717, Introductory Algebra, Part II (Computer).

Class time: 20% discussion, 80% Work on computers
Work load: 40 pages of reading per week, 6 exams
Grade: 48% mid-semester exam(s), 20% final exam, 14% quizzes, 18% problem solving
Exam format: Problems to solve

GC 0721 Introductory Algebra

(Sec 001-006); prereq—[4 cr equiv]; =0616, =0617, =0621, =0712, =0713, =0716, =0717, =0722, =1435; GC math placement; BC; 0 cr
Instructor: STAFF
Type: Traditional lecture, class discussion, and group work. See GC 0722 for a computer-mediated version of this course. Purpose: Covers the concepts and procedures of a first course in algebra at a level of difficulty and abstraction that is geared for students enrolled at a major research university. Prerequisite: Skill at working problems involving whole numbers, fractions, decimals, and percents. Content: Real number operations, equations, inequalities, absolute value, rectangular (x-y) graphs, exponents, polynomials, factoring, linear modeling, and word problems. Time (hours/week) Class: 4, Reading: 1, Writing: 1, Studying: 2, Homework: 6 Homework: Read text (not all material covered in lectures), work 20-50 problems each day. Exams: Quiz each week, six 50-minute closed book exams, and a two-hour comprehensive closed book final. Exams are problem oriented (e.g., "Solve this equation"). Next course in sequence: Intermediate Algebra, GC 0731 or GC 0732.

Class time: 50% lecture, 50% discussion
Work load: 40 pages of reading per week, 6 exams, Some sections use computer mediated instruction.
Grade: 60% mid-semester exam(s), 20% final exam, 10% quizzes, 10% problem solving
Exam format: Problems to solve.

GC 0722 Introductory Algebra (Computer)

(Sec 001-004); prereq—[4 cr equiv]; =0616, =0617, =0621, =0712, =0713, =0716, =0717, =0721, =1435; GC math placement; BC; 0 cr
Instructor: STAFF
Type: Computer mediated instruction where students learn new material using multi-media computer software. The instructor helps students individually during the class and does not lecture. See GC 0721 for a traditional lecture/discussion version of this course. Purpose: Covers the concepts and procedures of a first course in algebra at a level of difficulty and abstraction that is geared for students enrolled at a major research university. Prerequisite: Ability to work problems involving whole numbers, fractions, decimals, and percents. Content: Real number operations, equations, inequalities, absolute value, rectangular (x-y) graphs, exponents, polynomials, factoring, linear modeling, and word problems. Time (hours/week) Class: 4, Reading: 1, Writing: 1, Studying: 2, Homework: 6. Homework: Read text, (not all material covered in lectures), work 20-50 problems each class day. Exams: Quiz each week. Six 50 minute closed-book exams; two hour comprehensive closed-book final. Exams are problem-oriented (e.g., "Solve this equation"). Next course in sequence: Intermediate Algebra, GC 0731 or GC 0732

Class time: 20% discussion, 80% Work on computer
Work load: 40 pages of reading per week, 6 exams
Grade: 48% mid-semester exam(s), 20% final exam, 14% quizzes, 18% problem solving
Exam format: Problems to solve

GC 0731 Intermediate Algebra

(Sec 001-007); prereq—[4 cr equiv]; =0618, =0625, =0631, =0732, =1443, =1444, =1445, =1446; grade of at least C in [0713 or 0717 or 0721 or 0722] or GC math placement; BC; 0 cr
Instructor: STAFF
Type: Traditional lecture, class discussion, and group work. See GC 0732 for a computer-mediated version of this course. Purpose: Covers the concepts and procedures of a second course in algebra at a level of difficulty and abstraction that is geared for students enrolled at a major research university. Prerequisite: Ability to work problems from elementary algebra including real number operations, equations, inequalities, absolute value, x-y graphs, exponents, polynomials, factoring, and word problems. Content: Rational expressions, roots, radicals, systems of equations and inequalities, quadratic, exponential, and logarithmic functions, sequences, series, linear modeling, and word problems. Time (hours/week) Class: 4, Reading: 1, Writing: 1, Studying: 2, Homework: 6. Homework: Read text (not all material covered in lectures), work 20-50 problems each class day. Exams: Six 50-minute closed book exams and a two-hour comprehensive closed book final. Exams are problem oriented (e.g., "Solve this equation"). Next course in sequence: This course prepares you for Math 1031 College Algebra, Math 1051/1151 Precalculus, and GC 1454 Statistics (which satisfies the CLE Mathematical Thinking requirement).

Class time: 50% lecture, 50% discussion, some sections use computer mediated instruction
Work load: 40 pages of reading per week, 4 exams
Grade: 60% mid-semester exam(s), 20% final exam, 10% quizzes, 10% problem solving
Exam format: problems to solve

GC 0732 Intermediate Algebra (Computer)

(Sec 001-006); prereq—[4 cr equiv]; =0618, =0625, =0631, =0731, =1443, =1444, =1445, =1446; grade of at least C in [0713 or 0717 or 0721 or 0722] or GC math placement; BC; 0 cr
Instructor: STAFF
Type: Computer mediated instruction where students learn new material using multi-media computer software. The instructor helps students individually during the class and does not lecture. See GC 0731 for a traditional lecture/discussion version of this course. Purpose: Covers the concepts and procedures of a second course in algebra at a level of difficulty and abstraction that is geared for students enrolled at a major research university. Prerequisite: Ability to work problems from elementary algebra, including real number operations, equations, inequalities, absolute value, x-y graphs, exponents, polynomials, factoring, and word problems. Content: Rational expressions, roots, radicals, systems of equations and inequalities, quadratic, exponential, and logarithmic functions, sequences, series, linear modeling and word problems. Time (hours/week): Class: 4, Reading: 1, Writing: 1, Studying: 2, Homeowrk: 6. Homework: Read text (not all material covered in lectures), work 20-50 problems each class day. Exams: Six 50 minute closed-book exams; two hour comprehensive closed-book final. Exams are problem oriented (e.g., "Solve this equation"). Next course in sequence: This course prepares you for Math 1031, College Algebra; Math 1051/1151, Precalculus; and GC 1454, Statistics (which satisfies the CLE Mathematical Thinking requirement).

Class time: 20% discussion, 80% Work on computers
Work load: 40 pages of reading per week, 6 exams
Grade: 48% mid-semester exam(s), 20% final exam, 14% quizzes, 18% problem solving
Exam format: Problems to solve

GC 1041 Developing College Reading

(Sec 001-003); max crs 6; 3 repeats allowed; prereq—Non-native prereqeaker of English, CE enrollment, instr consent; 2 cr
Instructor: STAFF
Comprehension and study strategies for reading college-level textbooks. Previewing a textbook for content and organization, underlining and making margin notes, outlining, anticipating test questions, and interpreting technical vocaublary. For students in the Commanding English Program. Paired with a designated content course.

Class time: 25% lecture, 75% discussion
Work load: 30-50 pages of reading per week, 30 pages of writing per semester, 30% group presentation, small project
Grade: 30% special projects, 15% quizzes, 30% in-class presentations, 10% class participation, 15%, Reading notebook

GC 1051 Introduction to College Writing: Workshop

(Sec 001-004); prereq—credit will not be granted if credit received for: 1407; concurrent enrollment 1421 or concurrent enrollment 1422; BC; 2 cr
Instructor: STAFF
GC 1051 is a workshop course designed to help second-language writers become more conscious of grammar and editing choices in formal written English. This is done through reading textbook information about grammar (review rules, study language); taking notes and observing language use; individual analysis of grammar corrections made in the papers written in GC 1421 or GC 1422. Concurrent registration in GC 1421/ 1422 recommended.

Class time: 30% lecture, 50% discussion, 20% Small group and individual conferences

Work load: 10 pages of reading per week, 30 pages of writing per semester, 3 exams, Grammer notes, short homework assignments
Grade: 20% written reports/papers, 10% special projects, 10% quizzes, 10% class participation, 30% problem solving, 20% , Conferences

GC 1076 Career Planning Strategies

(Sec 001-004); prereq—BC; 2 cr
Instructor: STAFF
How to become more effective in work and personal life though knowledge of/and skills in career development. Course reflects major issues in career and major planning. Aspects of self-understanding and self-management, the importance of human relations in career success, and information to help career-minded students capitalize on their education, experiences, and talents in the job search.
Class time: 40% lecture, 20% discussion, 40% small group
Work load: 10-15 pages of reading per week, 10 pages of writing per semester, 0 exams, 3 papers
Grade: 40% final exam, 20% written reports/papers, 10% special projects, 10% in-class presentations, 10% class participation, 10% problem solving

GC 1082 Academic Development Seminar: Supplemental Instruction in the Sciences

(Sec 001-004); A-F only; prereq—concurrent enrollment in prereqecific content course, adviser approval after one 1081-1085 enrollment; BC; 1 cr
Instructor: STAFF
GC 1082 001 is designed as a companion class to GC 1135 Biological Sciences: The Human Body (also see: gen.edu/faculty_staff/jensen/1135/). GC 1082 002 is designed as a companion class to GC 1166 Principles of Chemistry. GC 1082 003 is designed as a companion class to GC 1163 Physical Systems: Principles and Practices. The purpose of these classes is to provide the students with additional time to process the materials presented in the companion class lectures. The course is developmental in nature and offers a variety of relevant exercises including: small group discussions, interactive in-class activities, worksheets, and practice tests and quizzes. An element imbedded into this course is study skills such as note taking, time management, previewing and reviewing materials, and test taking strategies, which can be applied to other University course work.
Class time: 10% lecture, 40% discussion, 50% group activities
Work load: 2 hrs/wk on worksheets, flashcards, and activities
Grade: 10% quizzes, 25% class participation, 65% , worksheets
Exam format: multiple choice

GC 1111 Science in Context: Weather and Climate

(Sec 001, 002); prereq—BC; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: Johnson, Allen B **!!Morse Alumni Award!!**
Principles and concepts from physics, chemistry, and biology are applied to the study of the atmosphere and its weather, climate and composition. We study the basic science behind the weather that we see and experience in order to understand why it happens. This experience leads us directly into weather forecasting. Many of the Lab exercises are organized around weather observation, analysis, and forecasting. The study of climate centers around prediction and the clarifying of conflicting issues concerning global warming. The scope of the course is broadened by locating articles that address some issue concerning the earthÆs atmosphere and then writing a critique of the issue.
Class time: 40% lecture, 20% discussion, 40% laboratory
Work load: 30 pages of reading per week, 35 pages of writing per semester, 7 exams
Grade: 20% written reports/papers, 80% , 7 exams, plus final exam
Exam format: Short answer exam questions, problem-solving

GC 1112W Ecological Evaluation of Environmental Problems

(Sec 001, 002); prereq—BC; meets CLE req of Environment Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Hoisve, Rae Ann
GC1112W is an introductory course in environmental science and is approved as both a Designated Theme course in the category of Environment and as a Writing Intensive course. Ecological principles are used to evaluate the causes of environmental problems, and potential interventions. About two hours per week is spent in lecture and discussion. Four multiple choice exams and eleven short answer quizzes are used to measure mastery of the lecture material. Early in the semester, students take a field trip to a local pond and collect field data on water quality. One hour of class per week is then spent analyzing the data and writing a scientific research paper in fulfillment of the Writing Intensive component. Approximately 15 pages of finished text are required of each student. The data collected by the students is also sent to the Minneapolis Park Board—Environmental Services Division and posted to the class website as a service to the community. Required texts for this course are "Environmental Science—Working with the Earth" by G. Tyler Miller and the GC1112 Course Packet by Rae Hoisve.
Class time: 60% lecture, 10% discussion, 30% Field trip; research; data analysis; writing
Work load: 10-20 pages of reading per week, 15 pages of writing per semester, 4 exams, 5 papers, 11 short quizzes
Grade: 45% mid-semester exam(s), 15% final exam, 25% written reports/papers, 10% quizzes, 5% class participation
Exam format: Multiple choice
Course URL: www.gen.umn.edu/faculty-staff/hoisve/1112/default.htm

GC 1131 Principles of Biological Science

(Sec 001, 015); prereq—BC; meets CLE req of Writing Intensive; meets CLE req of Biological Sciences/Lab Core; 4 cr
Instructor: Moore, Randy
This is an introductory level course that guides you toward developing your own understanding of the pre-eminent principles of biology, including: Genetics, Evolution, Ecology, Life Cycles and Reproduction, Cell Theory and the Molecular Basis of Life. We strive to learn biological principles in the context of the historical development of "science as a way of knowing." In the classroom and laboratory, we learn how observation and description have led to questions, hypotheses and predictions; how these hypotheses were tested; how the results of the tests were interpreted; and how the current knowledge base of biological science was, and is, being constructed and modified. The course provides you not only with the processes, facts and theoretical foundations of modern biology, but also with information and skills that you can apply to your daily lives. Both lecture and laboratory use conceptual change and discovery learning approaches. Classroom activities include a combination of short (10 minute) lectures, pair problem-solving exercises, and comparisons of individual and group responses to homework assignments. In the laboratory, students work in co-operative pairs to conduct experiments that require planning, observation, data collection and analyses, and scientific report writing. There is no dissection of organisms.
Class time: 30% lecture, 10% discussion, 40% laboratory, 20% Problem-solving, homework
Work load: 30 pages of reading per week, 15 pages of writing per semester, 4 exams, 2 papers, Homework assignments, essays
Grade: 15% mid-semester exam(s), 15% final exam, 20% written reports/papers, 25% lab work, 5% problem solving, 20% , Homework
Exam format: Multiple choice

GC 1135 Human Anatomy and Physiology

(Sec 001, 022); prereq—BC; meets CLE req of Biological Sciences/Lab Core; 4 cr
Instructor: Jensen, Murray Stowe **!!Morse Alumni Award!!**
GC 1135, Human Anatomy and Physiolgy, is a developmental education course intended for freshmen in General College. The course has both a traditional lecture and laboratory component. The lecture section of the course is organized around body systems, e.g., the digestive system. While in lecture, students will take notes, see multi-media presentations, and do some group work. The lab sections of the course focus primarily on organ dissection, e.g., eye, heart, etc. In addition to lecture and lab, the course also meets for one hour per week in a computer lab where students work in groups to complete quizzes, work on review activities, and complete computer projects, such as authoring web pages. Assignments completed in the computer room involve extensive use of cooperative groups. Please look up the GC 1135 website for more details: www.gen.umn.edu/faculty_staff/jensen/1135/
Class time: 60% lecture, 10% discussion, 30% laboratory
Work load: 30 pages of reading per week, 5 exams, 1 papers
Grade: 20% mid-semester exam(s), 20% final exam, 15% special projects, 15% quizzes, 30% lab work
Exam format: multiple choice
Course URL: www.gen.umn.edu/faculty_staff/jensen/1135/

GC 1163 Physical Systems: Principles and Practices

(Sec 001, 005); prereq—0713 or 0721 or equiv; BC; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: Hsu, Leon
GC1163 is an introductory physics course. There are three major goals in this course. The first is to learn the ways of thinking in a science field—what constitutes proof, how to develop an operational definition for concepts, and how to interpret the results of experiments. The second goal is to learn how a small number of fundamental physics concepts can be used to predict and explain a wide variety of phenomena (how things work) and to be able to use those concepts to solve quantitative (numerical) and qualitative (conceptual reasoning) problems. Students will also learn how

the various concepts in physics relate to the intuitions they've already developed from living in the real world. The final goal is to develop the ability to write with precision when describing phenomena and to be able to write explanations according to the rules of evidence for a scientific field. The labs will provide opportunities to practice problem solving skills and to apply the concepts learned in class to the real world.
Class time: 40% lecture, 20% discussion, 40% laboratory
Work load: 10 pages of writing per semester, 5 exams, weekly problem sets
Grade: 20% mid-semester exam(s), 15% final exam, 15% quizzes, 10% class participation, 20% lab work, 20% problem solving
Exam format: A combination of short conceptual questions and quantitative (numerical) and qualitative problem sol
Course URL: www.gen.umn.edu/faculty_staff/hsu/GC1163

GC 1166 Principles of Chemistry

(Sec 001); prereq—0713 or 0721 or equiv; BC; 3 cr
Instructor: Uthe, Richard E
Topics covered in GC 1166 include: Chemical Measurements: Introduction to Atoms and Elements: Electron Structure of Atoms and Ions: Names and Formulas of Inorganic Compounds: Molecular Weight: Percent Composition: Empirical Formulas: Chemical Reactions, Equations and Stoichiometry: Chemical Bonds in Molecules: Energy in Chemical Reactions: Enthalpy: Gases and Gas Laws: Solutions and Solution Concentrations: Acids, Bases and pH: Chemical Equilibrium. If you are planning to take further chemistry classes, GC 1166 should give you a good foundation in chemical concepts and quantitative manipulations. Introductory chemistry courses in the U of MN's Chemistry Department require "some prior background in chemistry" as a prerequisite; GC 1166 will do nicely. Check your specific program to see which chemistry course you should schedule next.
Class time: 75% lecture, 25% discussion
Work load: 4 exams
Grade: 67% mid-semester exam(s), 33% final exam
Exam format: short-answer and problems

GC 1171 Physical Geology

(Sec 001); prereq—BC; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: Uthe, Richard E
You are required to successfully complete a laboratory experience for this course. The laboratory is "student-paced" ("self-paced"); you work at your own rate of learning. The lab room will be open several hours each week for you. Lab quizzes are "practicals"; that is, they involve identifying and interpreting mineral and rock samples or reading and interpreting topographic maps and landforms depicted on them. Your textbook author constantly uses examples of everyday applications of geology. The first part of this course covers some basic principles of geology. Part of the "general education" component of the course consists of those areas of applied geology (also called "environmental geology") discussed in Chapters 12 through 20 of your textbook. Select any four (4) of these nine chapters which are of special interest and read each of these chapters carefully.
Class time: 50% lecture, 10% discussion, 40% laboratory, 9 lab quizzes
Work load: 4 exams, Your homework assignment is to answer a set of 10 questions per chapter for the four chapters you ha
Grade: 25% mid-semester exam(s), 25% final exam, 10% special projects, 40% lab work
Exam format: multiple choice

GC 1173 Geology of the National Parks

(Sec 001); prereq—BC; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: Uthe, Richard E
GC 1173 uses a "regional approach" to the ecology of the United States, with selected national parks as spectacular examples of the geology of each natural region. This course is not designed for "passive learners". There won't be much actual lecturing. During most class days, groups of three or four students will have written assignments to turn in for grading, where all students in each group will receive the same grade. Group composition will vary during the school term. The assignments might include such things as identifying minerals or rocks, reading and interpreting maps, or relating specific parks to landscape regions (physiographic provinces).
Class time: 20% discussion, 80% Group written assignments (see description)
Work load: 4 exams
Grade: 15% mid-semester exam(s), 15% final exam, 35% written reports/papers, 5% special projects, 20% quizzes, 10% in-class presentations, Two lecture tests (take-home, essay) 30%; Geography Review 5%; Daily class attendance 5%; Questions
Exam format: essay

GC 1204 International Perspectives in the Social Sciences

(Sec 001); A-F only; prereq—BC; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Pedelty, Mark Holmes
International Perspectives in the Social Sciences is an exploration of global institutions, structures, events, and ideas, examined through the perspectives of four social science disciplines: anthropology, geography, political science, and economics. One course unit will be dedicated to each of these four disciplines. In the process, you will not only be introduced to these four fields, but will also learn about related majors and careers. The overarching goal of GC 1204 is for us to gain a better understanding of the changing global environment and our place within it, while gaining an introduction to the basic perspectives, methods, and theories of the social sciences. We will focus most strongly on the North American Free Trade Agreement (NAFTA) nations—Canada, the United States, and Mexico—with the ultimate aim of understanding how we, as residents of Minnesota, are connected to others belonging to our continent, economic bloc, and world.
Class time: 35% lecture, 25% discussion, 40% Films, research workshops
Work load: 50 pages of reading per week, 7 pages of writing per semester, 0 exams, 1 papers, Weekly quizzes, 1 research presentation, 1 quant
Grade: 25% written reports/papers, 25% special projects, 25% quizzes, 25% in-class presentations
Exam format: Multiple choice

GC 1211 People and Problems

(Sec 001-008); prereq—BC; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Miksch, Karen L
This course is designed as an introduction to sociological thinking and methods of research. People and Problems seeks to engage students in the study of our culturally diverse society and its social problems. Areas of study include socialization, culture, deviance, inequality, stratification and social change. Because ideas emerging from feminist, historical, anthropological, and cultural studies are an important part of the mixture which creates the sociological perspective, readings and discussions will be interdisciplinary in nature. We will learn how social scientists study race, class, and gender stratification to critically evaluate how different social phenomena are explained through various social research methods and theories. Students will choose a social issue they are interested in learning more about and research the topic during the semester—including library research and interviews. Students will meet regularly with students conducting service learning in Heidi Barajas Howarth's sections to compare and contrast field data with library research. There is also a common lecture on Friday where students from all 4 sections will meet.
Class time: 20% lecture, 20% discussion, 60% collaborative small group work
Work load: 50 pages of reading per week, 10-12 pages of writing per semester, 3 papers, weekly quizzes on reading
Grade: 60% written reports/papers, 20% quizzes, 20% class participation
Exam format: weekly quizzes are short answer and multiple choice
Course URL: www.gen.umn.edu/faculty_staff/miksch

GC 1233 U.S. Government and Politics

(Sec 001); prereq—BC; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Kahn, Peter T.
General introduction to politics and political process dealing with structure, organization & function of American government; conflicting values, philosophies and beliefs underlying how government institutions address demands made on them to manage societal problems are examined in the context of: historical/philosophical foundations of American government; explaining nature & interaction among federal/state government institutions; understanding relationships between people and government; affect of social science thinking patterns, research tools and findings on formulating, evaluating and implementing domestic and foreign policy initiatives. Course objectives: 1) appreciate government's impact in our everyday lives; 2) understand philosophical framework & conflicting values underlying historical background of American government; 3) identify minority influences on development of American Government; 4) explain interaction among government institutions at different levels of government; 5) distinguish viewpoints regarding interrelationship of politics, political decision-making processes and institutions of government; 6) explain how individuals and groups within society affect workings of government; 7) identify interdisciplinary perspectives on basic principles & practices concerning how government responds to areas of domestic and foreign policy controversy.
Class time: 30% lecture, 40% discussion, 30% Guest speakers/videos
Work load: 35-50 pages of reading per week, 20-25 pages of writing per semester, 4 exams, 7 papers, 4 Exams:100 pts each; take home essay; in class T/F & Multiple choice; 7 Quizzes, 20 pts each, all T

Grade: 14% written reports/papers, 27% quizzes, 14% problem solving, 45% , 4 mini finals
Exam format: Multiple choice,65%; Essay 35%
Course URL: www.gen.umn.edu/faculty_staff/kahn/1233/course_description.htm

GC 1235W Law in Society

(Sec 001, 002); prereq—BC; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Kahn, Peter T.
Study of how America's legal system deals with areas of major social conflict and controversy, focusing on how social science theoretical constructs, thinking patterns and research methods affect lawmaking process. Topics include: cultural/historical/philosophical foundations of and value/belief conflicts underlying America's legal system; understanding organizatoin and interactional dynamics among lawmaking institutions; comparative effectiveness/efficiency of various alternatives for participation in lawmaking processes; effects of conflicting ethical beliefs and bias on lawmaking policies and practices; how social forces, conditions and developments shape the law's recognition of response to problems/issues arising from family, criminal, employment, and environmental areas such as abortion conflicts, pollution, child abuse, minority rights, death penalty, right to die, hate crime, pornography and workplace discrimination/harassment. Necessary Skills: undergraduate college level reading and writing skills.Evaluation techniques: curve grading based on exam, quiz, paper and lesson assignment point totals for each students, evaluated on all class, total points curve. Optional extra credit: additional work opportunities are available and announced in class.
Class time: 30% lecture, 40% discussion, 30% Guest speakers, videos
Work load: 35-50 pages of reading per week, 25-30 pages of writing per semester, 3 exams, 7 papers, Note: Papers: 10 pts each; 3-4 pps in length; Exams:100 pts each/each exam closes out area studied;
Grade: 45% mid-semester exam(s), 14% written reports/papers, 27% quizzes, 14% problem solving
Exam format: Exams: 65% in-class multiple choice/35% take-home essay
Course URL: www.gen.umn.edu/faculty_staff/kahn/1235/course description.htm

GC 1281 General Psychology

(Sec 001); prereq—BC; meets CLE req of Social Science Core; 4 cr
Instructors: Brothen, Thomas **!!Morse Alumni Award!!**; Wambach, Cathrine A
Individual instruction and computer technology help students develop as independent learners as they survey major psychological theories, concepts, and methods. Satisfies introductory psychology requirement for degree programs, such as management, education, and agricultural marketing and serves as prerequisite for advanced psychology courses.
Class time: 100% laboratory
Work load: 50 pages of reading per week, 1 pages of writing per semester
Grade: 25% final exam, 50% quizzes, 25% lab work

GC 1285W Introduction to Cultural Anthropology

(Sec 001, 003); prereq—BC; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Goette, Susan A
This course is a comparative study of societies around the world. It will introduce you to the the study of human behavior from a socio-cultural perspective. Since anthropologists document, describe, and attempt to explain cultural behavior we will explore the ways our lives are influenced by the cultural patterns we learn. Course Objectives: 1) Develop an understanding of the concept of culture; 2) Cultivate an appreciation of culture—ones own and others; 3) Introduction to methods of fieldwork; 4) Create an awareness of the role of Anthropology in addressing contemporary issues. This course attempts to accomodate multiple learning styles, as well as multi-lingual speakers, by utilizing both collaborative activities and individual projects. The course format includes small and large group discussion, films, and lecture. Assignments are varied. Differing assignments require different skills, thereby providing students with the opportunity to work to their strengths.
Class time: 30% lecture, 20% discussion, 20% Films, 30% group work
Work load: 40 pages of reading per week, 15-18 pages of writing per semester, 3 exams
Grade: 20% written reports/papers, 25% special projects, 10% problem solving, 20% , essay; 25% group work; 20% exams; 10% development
Exam format: Short answer, multiple choice, matching, true/false
Course URL: gen.umn.edu/falculty_staff/goette

GC 1311 Art: General Art

(Sec 001-004); prereq—credit will not be granted if credit received for: 3311; BC; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: Chapman, Jeffrey T
How do we make sense of art? What is metaphoric thinking? How and why do artists communicate ideas and feelings? How are the arts relevant to our lives? This is an introductory art course in which students learn about art by actively looking, listening, reading, talking, and writing about it. We will explore art forms made in diverse American and international cultures. By looking at the visual arts, listening to music, and watching videos of artists and performances, students will experience art in a number of different ways. As a class and individually, students will take several trips to art galleries and museums. Assignments include reflective, expressive, and critical writing; quizzes; reading responses; and small group and all-class discussions and exercises.
Class time: 30% lecture, 30% discussion, 40% Videos, music, and in-class activities
Work load: 15 pages of reading per week, 20 pages of writing per semester
Grade: 50% written reports/papers, 20% special projects, 10% class participation, 20% , outside class assignments

GC 1365W Literatures of the United States

(Sec 001, 002); prereq—BC; meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Hodne, Barbara Downs
This course examines literary trends and social concerns of primarily modern American writers of various ethnic heritages, both men and women, examining how their heritages and gender shaped their thinking, how they viewed American culture, and how they reveal our history. With careful attention and responsible completion of assignments, you will leave the course more aware of differences, similarities, and issues on the minds of people writing in America over the last 100 years. This introductory course is designed for undergraduate non-majors.
Class time: 25% lecture, 50% discussion, 25% Student presentations and in-class writings
Work load: 60 pages of reading per week, 10 pages of writing per semester, 2 exams, 3 papers, 10 in-class writings
Grade: 45% written reports/papers, 10% special projects, 30% quizzes, 15% class participation
Exam format: One-half objective (short answer or matching); one-half essay

GC 1367W Contemporary Literature: International Perspectives

(Sec 001); prereq—BC; meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Collins, Terence George **!!Morse Alumni Award!!**
Students read fiction, autobiography, poetry, and drama, written within the last 50 years or so by authors from outside North America and Europe. The course is taught via lecture and discussion. It is a writing intensive course. Students write frequently—both formally and informally. The course is aimed at a general lower division student group. Students are not assumed to have prior literature or humanities coursework.
Class time: 50% lecture, 50% discussion
Work load: 100+ pages of reading per week, 20 pages of writing per semester, 1 exams, 2 papers, Weekly informal writing
Grade: 20% final exam, 80% written reports/papers
Exam format: Essay

GC 1374W The Movies

(Sec 001-004); prereq—BC; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Yahnke, Robert Eugene
GC 1374 introduces students to the aesthetics of feature-length films and to the work of selected directors of contemporary cinema. Students will learn some of the fundamentals of film study, such as the art of the shot, editing, lighting, movement, acting, and sound. Aspects of the art of the screenplay and directing will be discussed. After learning a basic vocabulary of film study, students will examine these concepts in the context of films viewed in class, complete writing assignments on several of these films, participate in group-related discussion and activities in class, and demonstrate skills of public speaking and analytical writing.
Class time: 25% lecture, 60% discussion, 15% Viewing films in class
Work load: 20 pages of reading per week, 25 pages of writing per semester, 3 papers, In-class writing exercises; 4 on-line quizzes
Grade: 10% final exam, 45% written reports/papers, 25% quizzes, 20% , On-line activities: Web-CT and on-line quizzes
Exam format: Essay
Course URL: www.gen.umn.edu/faculty_staff/yahnke

GC 1421 Writing Laboratory: Basic Writing
(Sec 001-054); prereq—BC; 3 cr
Instructor: STAFF
This course introduces students to basic writing strategies that are encountered in college-level courses. It operates under the assumption that students will practice their writing frequently and gain regular feedback from the instructor. The course is given in computer labs, and active learning is an emphasis in all sections. Authors in the course center around the topic of education. This course is for undergraduates.
Class time: 10% lecture, 15% discussion, 75% various writing exercies. (Percentages vary by section)
Work load: 60-80 pages of reading per week, 35-40 pages of writing per semester, 1 exams, 11 papers

GC 1422 Writing Laboratory: Communicating in Society
(Sec 001, 002); prereq—credit will not be granted if credit received for: 1423 or 1424; grade of at least D in [1421 or equiv]; BC; 3 cr
Instructor: STAFF
The content in this course, as in GC 1421, is writing for college. Topics around which student writing is assigned varies, but in all cases, the emphasis for the course is on developing such skills as argumentation, writing with the use of sources, and research documentation. Undergraduates take this course.
Class time: 10% lecture, 25% discussion, 65% writing
Work load: 70 pages of reading per week, 40 pages of writing per semester, 1 exams, 1 extended research paper; several shorter papers
Grade: varies by section

GC 1454 Statistics
(Sec 001-004); prereq—C in 0731 or equiv; TC; meets CLE req of Mathematical Thinking Core; 4 cr
Instructor: Loch, Suzanne Yvette
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, sampling distributions, probability, estimation, correlation, hypothesis testing, contingency tables, and chi-square analysis. The instructional approach includes the use of small active learning groups, computer statistics software, computer simulations, in-depth projects, writing assignments, demonstrations, and lots of discussion and problem solving based on practical examples. Students learn how to analyze and interpret quantitative information, to use statistical thinking, and to communicate using the language of statistics. Students will develop a level of statistical literacy that enables them to critically assess information encountered in the media and other sources. This course will be of particular insterest to undergraduate non-majors who want to fulfill the CLA requirement in Mathematical Thinking.

GC 1456 Functions and Problems of Logic
(Sec 001-003); prereq—BC; meets CLE req of Mathematical Thinking Core; 3 cr
Instructor: STAFF
This course introduces students to the concepts and methods of modern symbolic logic. We will develop a formal (or symbolic) system and use it to represent and evaluate the forms of English arguments. To evaluate argument forms, students will (1) learn the basics of the system (its symbols, rules, and proof conventions), (2) become proficient at translating between English and logic, and (3) learn how to construct proofs within the system. Time allowing, we will use the formal tools we've developed to explore how logic can be useful in understanding, for example, legal reasoning, scientific reasoning, analytic puzzles that appear on the GRE and LSAT, or some of the metatheoretical theorems of 20th century logicians. This course assumes no background in mathematics, logic, or philosophy. It is geared towards first and second year General College students.
Class time: 70% lecture, 10% discussion, 20% small group sessions
Work load: 30 pages of reading per week, 3 exams, weekly homework
Grade: 75% mid-semester exam(s), 10% quizzes, 15% problem solving
Exam format: problem solving

GC 1461 Oral Communication in the Public Sphere
(Sec 001-004); prereq—BC; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: Trites, Jill K
This course provides an introduction to the fundamental practical skills necessary for effective oral communication and critical thinking through a combination of lecture and discussion, group work, readings, written work, and classroom delivery of speeches. The objectives of the course include: 1) To gain the knowledge and skills necessary for effective oral communication; 2) To examine the civic and ethical responsibilities of oral communicators; 3) To investigate the nature of the public sphere as a space for deliberation and debate; 4) To learn to research, prepare, and deliver a public speech on an issue of social significance to the community; 5) To learn to adapt oral messages to politically diverse audiences and contexts; 6) To develop critical thinking skills and become a more critical consumer of oral and written communication in everyday life; and 7) To examine the role of public oral communication in the democratic process. This class meets the CLE requirement for Citizenship/Ethics. Students who have completed the course describe it as "practical, interesting, and essential for building better communication skills." The course is open to undergraduate students who are interested in improving their oral communication skills. Students will present three individual speeches (speech of belief, informative, and persuasive speaking) and participate on a debate team working with topics of social significance.
Class time: 30% lecture, 35% discussion, 30% classroom speeches
Work load: 40-50 pages of reading per week, 10 pages of writing per semester, 6 papers, 4 formal classroom speeches, ranging three to nine minutes in length
Grade: 20% written reports/papers, 20% quizzes, 45% in-class presentations, 15% class participation
Exam format: Students have the choice of taking either essay quizzes of multiple choice quizzes
Course URL: www.gen.umn.edu/faculty_staff/trites/1461.htm

GC 1511 Introduction to Business and Society
(Sec 001, 002); prereq—BC; meets CLE req of Social Science Core; 4 cr
Instructor: Kroll, Patrick A **!!Morse Alumni Award!!**
This course is targeted at freshmen and sophomores to give them a chance to survey a variety of business topics which can help them decide majors and/or careers. Topics, or units, include: accounting; marketing; finance; human resource management; and ethics and social responsibility. A variety of teaching/learning methods are used. Active learning strategies include writing solutions to simulted business problems; group (team) participation in class dealing with dilemmas in business such as unethical practices; and class sharing of outside readings related to current business issues.
Class time: 25% lecture, 25% discussion, 25% in-class, hands-on applications
Work load: 40 pages of reading per week, 25 pages of writing per semester, 2 exams, 6 papers, 8 bi-weekly quizzes; the 6 papers are business case problems
Grade: 25% mid-semester exam(s), 25% final exam, 35% written reports/papers, 10% quizzes, 5% class participation
Exam format: 75% multiple choice; 25% essay

GC 1513 Principles of Small Business Operations
(Sec 001, 002); prereq—TC; 3 cr
Instructor: STAFF
This course is for current and future entrepreneurs who want to expand their knowledge about starting and/or expanding a small business. Topics include: researching business opportunities, determining target markets, analyzing potential business sites, marketing, financing the small business and writing the prospectus (the plan for starting the business). The course is set up as a "nuts and bolts" course for people serious about becoming entrepreneurs.
Class time: 30% lecture, 5% cctv, 30% discussion, 35% In-class exercises on setting up and operating a small business
Work load: 50 pages of reading per week, 10 pages of writing per semester, 2 exams, 4 papers, 2 "field" excercises examining existing small businesses
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 15% special projects, 10% quizzes, writing a business plan
Exam format: 50% multiple choice; 50% essay

GC 1534 Practical Law
(Sec 001); prereq—TC; 4 cr
Instructor: Kahn, Peter T.
General introduction to American legal process covering such practical-law related topics as courts, crimes, torts, contracts, employment, consumer, property insurance, banking, secured transactions, bankruptcy and international business law. Course objectives: 1) appreciate law's impact on our everyday lives and activities; 2) understand philosophical framework/historical background of America's legal system; 3) know nature of interaction among various branches of lawmaking authority; 4) develop awareness of how individuals and groups in society are affected by, and in turn influence, policies, principles and practices associated with specific areas of law; 5) identify basic principles and practices associated with how the legal system responds to public/private issues, problems and conflicts in various fields of law; 6) develop principles and standards to critically evaluate the effectiveness and efficiency of America's legal system in

specific areas of law; understand complex, interdisciplinary nature of America's legal system. Necessary skills; undergraduate college level reading and writing skills. Evaluation: curve grading based on exam, quiz, and paper total scores combined into singe points, all class, curve. 4 credits.
Class time: 30% lecture, 40% discussion, 30% Guest speakers/ videos
Work load: 50 pages of reading per week, 15-20 pages of writing per semester, 4 exams, 7 papers, 4 Exams: 100 pt each; each exam closes out area of study: 7 papers; 10 pts each, 3 to 4 pages in len
Grade: 15% written reports/papers, 35% quizzes, 50% , 4 mini finals
Exam format: Multiple choice, 65%; Essay 35%.; all take-home
Course URL: www.gen.umn.edu/faculty_staff/kahn/1534/Course_Description.htm

GC 1571 Introduction to Microcomputer Applications

(Sec 004, 005); prereq—0713 or 0717 or 0721 or 0722 or equiv; 4 cr
Instructor: Robertson, Douglas Frederick **!!Morse Alumni Award!!**
Hands-on lab course where class time is spent working on computers. Background reading of procedures and concepts outside of class is required. Instructor helps students individually during class and does not lecture. Students may do much work on their own computer (either Macintosh or Windows) outside of class if they have Word and Excel. Purpose: Designed for non-computer science majors who need an introduction to the concepts and skills of word processing and spreadsheets. The course assumes no prior computer experience and moves the student to an advanced beginner level. Prerequisite: Elementary algebra. Content: Basic concepts (5%); word processing (50%); where students learn about entering, editing, formatting, and manipulating text, tables, footnotes, headers, footers, mail merge, and a little word art. Spreadsheets (45%) where students learn about entering numeric and text data, formatting cells and worksheets, creating formulas, making decisions using IF/THEN/ELSE logic, lookup tables, creating graphs, and integrating graphs into Word documents. Time (hours/week) Class: 4, Reading: 2, Writing: 0, Studying: 1. Homework: 5. Students have to do a significant amount of work outside of class reading and working on their own computer, or a computer in a University Microcomputer lab. Homework: 15 computer-based projects. Exams: One closed-book final exam done on the computers in the classroom
Class time: 100% laboratory
Work load: 40 pages of reading per week, 1 exams
Grade: 40% final exam, 60% problem solving
Exam format: Exams: One closed-book final exam done on the computers in the classroom.

GC 1816 African-American Literature

(Sec 001, 002); prereq—BC; meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; 3 cr
Instructor: Hyland, Ezra St
The course is designed to initiate and advance the study and appreciation of African-American literature through careful analysis of designated works in the tradition. Texts range from classical to lesser-known narratives from the nineteenth century to the present. With an emphasis on close reading, we will be concerned with literary and rhetorical aspects of the literature within the context of cultural, political, racial, and gender dynamics during specific moments in American history.
Work load: 140 pages of reading per week, 12-15 pages of writing per semester, 2 exams, 4 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/ papers, 5% quizzes, 5% in-class presentations, 5% class participation, 5% , Attendance
Exam format: Multiple choice and short answer

GC 1836 Asian-American Literature

(Sec 001, 002); prereq—BC; meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; 3 cr
Instructor: Gidmark, Jill Barnum **!!Morse Alumni Award!!**
This course focuses primarily on literature by Japanese, Chinese, and Filipino Americans, since these groups have been established the longest in the US, have the largest population here, and have been published the most. Examining issues of identity, generational conflict, and "fitting in," we will analyze how the Asian American experience has been shaped by historical events and by political and social trends in America. The voices that express such experience are both different from and similar to each other. All will help us better understand and respond to the Asian American experience. Discrimination or confusion creates a severe generation gap where first-generation parents hold on to traditions but the children quickly become more Americanized. This course is aimed at providing you with an opportunity to analyze the Asian American experience from an Asian American perspective and, by extension, to become more sympathetic to the challenges facing all minority ethnic groups. To succeed in this class you need to read critically and respond orally and in writing to thought-provoking issues and questions. Deadlines are firm and regular attendance is required.
Class time: 30% lecture, 30% discussion, 40%
Work load: 75+ pages of reading per week, 45 pages of writing per semester, 3 exams, 2 papers
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/ papers, 10% special projects, 10% quizzes, 10% class participation
Exam format: Objective and essay, closed and open book.

GC 1851 Multicultural Relations

(Sec 001-003); prereq—BC; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: STAFF
This course is designed for undergraduate students. the course examines the nature of historical and contemporary multicultural relationships within American society. It looks at inter-cultural, inter-ethnic, interracial and cross-gender relationships from both a historical and contemporary perspective. The examination of these issues will help develop methods to analyze and construct connections between systems that devalue, degrade, dehumanize and destroy individuals and groups. The goals and purposes of this course are to enhance effectiveness in analyzing how power, resources, cultural standards and institutional practices and procedures are used to perpetuate the oppression of various groups in the past and the present. History impacts what we think and do today. The past is in our business with each other today. A result of this analysis is that student's knowledge and skills can be strengthened in helping heal or transform relationships with others who are different and have been negatively impacted by racism, sexism, classism and other oppressive elements in personal, institutional and public life. Consideration of these complicated issues will enhance student's ability to formulate ways of developing more healthy human and multicultural relationships.
Class time: 50% lecture, 50% discussion
Work load: 75 pages of reading per week, 25 pages of writing per semester, 3 exams, 5 papers, 4 quizzes.
Grade: 15% mid-semester exam(s), 30% final exam, 30% written reports/ papers, 5% quizzes, 20% class participation
Exam format: multiple choice

GC 1903 Freshman Seminar: Citizenship and Public Ethics

(Sec 001, 002); Credit will not be granted if credit has been received for: GC 1902, GC 1902, GC 1902, GC 1901, GC 1901, GC 1901, GC 1901, GC 1904, GC 1904, GC 1904, GC 1904; prereq—fewer than 24 cr; GC; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: Moore, Randy Robert
This course is meant to help you develop your own understanding and appreciation of the evolution-creationism controversy, including its history, legacy, and key people. We will discuss a variety of issues related to the controversy, including those involving court decisions, public opinion,and related issues (e.g., racism, politics). We will talk about why so many people feel so strongly about these issues, and why the controversy persists. You'll be interested in, and probably surprised by, what you learn.
Class time: 40% lecture, 10% discussion, 50% Term paper
Work load: 20 pages of reading per week, 15 pages of writing per semester, 4 exams, 1 papers
Grade: 20% mid-semester exam(s), 20% final exam, 50% written reports/ papers, 10% , homework
Exam format: Essay

GC 2357 World Religious Beliefs

(Sec 001); prereq—credit will not be granted if credit received for: 1357; [1421 or equiv], 12 cr, TC; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: Adamson, William Delance
GC 2357, World Religious Beliefs, is a transition curriculum course in which we study ideas about religion in general, and also study major and minor contemporary religions such as Buddhism, Christianity, Sikhism, Baha'i, etc. Additionally, we examine rival denominations within selected world religions, e.g., Sunni and Shiite traditions within Islam. We'll relate these living world religions to prehistoric religion and surviving primal religions as well. Selected alternative or marginalized religions existing today, as well as the connection between religions and contemporary issues such as East-West political tensions and the environmental movement, will also be examined. The course will conclude by considering rationalist-humanist critiques of organized religion. GC 2357 is a comparative religions course: students should start with the assumption that all the religions have validity and are entitled to respect. Your objectives should be the following: (1) Demonstrating written and spoken mastery of names, technical terms and conceptual definitions. (2) Explaining factually and non-judgmentally some representative beliefs, liturgies and behaviors. (3)

Demonstrating mastery of basic historic and geographic data about human prehistory, development and change. (4) Describing orally and in writing how religious cultures relate and interact. (5) Demonstrating mastery of basic library, on-line and/or survey research methods as well as basic critical thinking skills.
Class time: 33% lecture, 33% discussion, 33% films
Work load: 50 pages of reading per week, 3 exams, 15 quizzes
Grade: 20% mid-semester exam(s), 20% final exam, 20% quizzes, 20% problem solving, 20% , worksheets
Exam format: Multiple choice and fill-in-blank.

Genetics, Cell Biology and Development

250 Biological Sciences; 612 6243003

GCD 3022 Genetics

(Sec 001); Credit will not be granted if credit has been received for: BIOL 4003; prereq—credit will not be granted if credit received for: Biol 4003; Biol 1002 or 1009; not for biology majors; 3 cr
Instructor: STAFF
Mechanisms of heredity, their implications for biological populations and applications to practical problems.

GCD 4151 Molecular Biology of Cancer

(Sec 001); prereq—Biol 4003; 3 cr
Instructors: Largaespada, David Andrew; Bardwell, Vivian June
This course is intended to provide students with an understanding of regulatory pathways that direct normal development of complex eukaryotic organisms and how disruptions of these pathways can lead to abnormal cell growth and cancer. Topics will include normal and cancerous cell growth, signal transduction, cell death, DNA stability and repair, invasion and metastasis, oncogenes, tumor suppressor genes, viral oncogenes, role of environment in cancer development, detection and treatment of cancer. Assigned readings will be from the textbook, King, "Cancer Biology" and may also include several articles from the primary research literature. The course is intended for advanced bioscience undergraduates, including those considering post-graduate training in biological or biomedical sciences.
Class time: 100% lecture
Work load: 15 pages of reading per week, 0 pages of writing per semester, 4 exams, 0 papers
Grade: 45% final exam, 55% quizzes
Exam format: Short answer, multiple choice

GCD 4793W Directed Studies: Writing Intensive

(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; meets CLE req of Writing Intensive; 1-7 cr
Instructor: STAFF
Writing Intensive Guidelines (Directed Studies 4793W): Students will be required to write a 10 to 15 page paper in the format of a scientific review article. This paper will contain an introduction that presents an overview of the research topic and several subsections that describe aspects of the topic in detail. The conclusion section will summarize the information presented in the review article, comment on its significance, and propose future research directions. Articles from the literature, or other reference sources, that were cited in the paper will be listed in the Reference section. The faculty mentor will provide students with general guidelines on writing a scientific review article that outlines the sections to be included. A recently published review article in the student's research area may serve as a model. The mentor will help guide the student in selection of an appropriate topic to be reviewed and be available for discussions. Throughout preparation of the initial drafts of the paper, the mentor will advise the student with regard to organization and presentation of the information (graphs, diagrams, tables, etc.). The mentor will read the draft of the paper and comment on format, content, and writing style. The student will then prepare a final version of the review article based on the mentor's comments.

GCD 4794W Directed Research: Writing Intensive

(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; meets CLE req of Writing Intensive; 1-7 cr
Instructor: STAFF
Writing Intensive Guidelines (Directed Research 4794W): Students will be required to write a 10 to 15 page paper in the format of a scientific article. This paper will contain an introduction that surveys the current literature in the student's area of research. The materials and methods section will outline the techniques and approaches used in the research project, and the results section will present the experimental findings. The discussion section will analyze the data, present interpretations of the data, and compare their results with the experimental findings reported by others. Students will receive general guidelines on writing a scientific paper that outlines the sections to be included. A recent published article in the student's research area will serve as a model. Throughout preparation of the initial drafts of the paper, the mentor will advise the student in data presentation (graphs, figures, etc.). The mentor will read the draft of the paper and comment on format, content, and writing style. The student will then prepare a final version of the paper based on the mentor's comments.

GCD 4993 Directed Studies

(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; 1-7 cr
Instructor: STAFF
Permit students who desire to learn about a specialized topic not already presented in a regularly scheduled lecture course to explore that area through individualized independent reading, analysis, and writing of a term paper. Directed study course involves student workload of a minimum of 45 hours work per credit (workload totaled over entire semester). Some of this effort involves consultation with the faculty member who is directing the study and the remainder would be time spent by the student reading appropriate literature, conducting laboratory exercises, analyzing data and/or writing one or more summary reports.

GCD 4994 Directed Research

(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; 1-7 cr
Instructor: STAFF
Provide opportunity for undergraduates to experience laboratory research. Research experience as an undergraduate is a very important preparation for those who intend to apply for graduate study. Research experience provides a new perspective on the body of knowledge about which students learn in standard lecture classes. Having research experience provides the student with a sense of reality about the subject matter. Directed Research is an individualized research experience under the direction of a faculty mentor. Overall student effort will be at least 45 hours per semester per credit. Student effort is expected to include contact time with the mentor (number of hours varies) to discuss direction of the project, methods to be used, results and interpretation, as well as future directions. In addition, the student will spend time doing experiments, collecting data, organizing results, as well as reading pertinent literature.

GCD 5036 Molecular Cell Biology

(Sec 001); prereq—Biol 4004 or instr consent; [sr or grad student] recommended; 3 cr
Instructor: STAFF
The Molecular Cell Biology course is designed for advanced undergraduates and beginning graduate students in biological sciences. This course will cover major subjects of modern Cell Biology with emphasis on the experimental approach and provide opportunity for students to become acquainted with reading and evaluating original scientific papers. Instruction will combine an overview of each topic with analysis of scientific papers to illustrate development of new concepts and use of experimental results to formulate and test hypotheses. Modern, integrative approaches that combine cell and molecular biology, biochemistry, and genetics to investigate cell organization and function will be emphasized. Topics will include membranes, signaling, extracellular matrix, secretion, endocytosis, the cytoskeleton, and the nucleus. These subjects are central to eukariotic cells, and will be considered with regard to the cellular mechanism of human disease. Required reading usually will include one research paper accompanied by a short review article per lecture. These papers should be read before the class and will be discussed during the lecture. We also suggest to use Molecular Cell Biology, Darnell, Lodish, Baltimore (Scientific American Books) as an excellent supplementary text for a review or background reading.
Class time: 80% lecture, 20% discussion
Work load: In order to gain experience in critical evaluation of current literature, two research papers will b
Grade: 25% mid-semester exam(s), 25% final exam, 10% class participation, 40% , Take-home critique (2) of a research paper will each be worth 20% of the grade.
Exam format: in-class written exam (short essays format)

Geography

414 Social Sciences Building; 612-625-6080

Geog 1301V Honors: Introduction to Human Geography
(Sec 001); prereq—Honors; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Till, Karen E
Have you wondered what it means to think and act locally? Are you curious about other parts of the world? Are you interested in the similarities and differences between megacities in Latin America, Asia, and the U.S.? Or about the reasons why ethnic conflict continues in Kosovo? Or how nature is commodified? Geographers answer these kinds of questions and many more. We don't just look up places on the map, but we study how and why people transform their world into concrete places like cities, national parks, and villages. In this class, we will look at how places and regions are interconnected, how they are unique, and how people, ideas, and things moving from one locale to another can change a place or region. After taking this class, you will see your surroundings in new ways by asking questions like: Why are peoples, cultures, and places what they are? Why are they where they are? This is an entry-level lecture course designed for the first and second-year students, and will consist of lectures, group activities, films, and discussion sections. There are two basic requirements: 1) to respect the rights of other students to learn and 2) to participate in recitation activities and in-class discussion.
Class time: 55% lecture, 30% discussion, 15% Films/videos
Work load: 50 pages of reading per week, 15 pages of writing per semester, 2 exams, 4 papers
Grade: 25% mid-semester exam(s), 25% final exam, 40% special projects, 10% quizzes
Exam format: Mostly essay, some short answer
Course URL: www.geog.umn.edu/courses/1301

Geog 1301W Introduction to Human Geography
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Till, Karen E
Have you wondered what it means to think and act locally? Are you curious about other parts of the world? Are you interested in the similarities and differences between mega-cities in Latin America, Asia, and the U.S.? Or about the reasons why ethnic conflict continues in Kosovo? Or how nature is commodified? Geographers answer these kinds of questions and many more. We don't just look up places on the map, but we study how and why people transform their world into concrete places like cities, national parks, and villages. In this class, we will look at how places and regions are interconnected, how they are unique, and how people, ideas, and things moving from one locale to another can change a place or region. After taking this class, you will see your surroundings in new ways by asking questions like: Why are peoples, cultures, and places what they are? Why are they where they are? This is an entry-level lecture course designed for firtst and second-year sutdents, and will consist of lectures, group activities, films, and discussion sections. There are two basic requirements: 1) to respect the rights of other students to learn and 2) to participate in recitation activities and in-class discussion
Class time: 55% lecture, 30% discussion, 15% films/videos
Work load: 50 pages of reading per week, 15 pages of writing per semester, 2 exams, 4 papers
Grade: 25% mid-semester exam(s), 25% final exam, 40% special projects, 10% quizzes
Exam format: mostly essay; some short answer
Course URL: www.geog.umn.edu/courses/1301

Geog 1425 Introduction to Meteorology
(Sec 001); Same as: SOIL 1425; both Geog 1425 and 1426 must be completed to count for Phys Sci/L CLE req; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 3 cr
Instructor: Klink, Katherine
Why does the wind blow? How do clouds affect the climate? What is El Nino, anyway? In this course we will try to answer these and other questions about our atmosphere, weather, and climate. Our objectives are also to understand the basic energy sources that drive the weather, to gain insight into how weather forecasts are assembled and evaluate uncertainty in weather forecasting, and understand the basic principles of atmospheric circulation. Each lecture includes a daily weather discussion that makes use of weather information available via the www. This course is targeted to non-sicence majors. When taken along with Geog/Soil 1426W, this course fulfills the CLE "Physical Science with Lab" requirement.
Class time: 80% lecture, 20% discussion
Work load: 30 pages of reading per week, 10 pages of writing per semester, 4 exams, 2 papers
Grade: 20% final exam, 35% written reports/papers, 45% quizzes
Exam format: Multiple choice, short answer, short essay
Course URL: www.geog.umn.edu/faculty/klink/geog1425

Geog 1426W Introduction to Meteorology Laboratory
(Sec 001, 002); Same as: SOIL 1426W; prereq—both Geog 1425 and 1426 must be completed to count for Phys Sci/L CLE req; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; 2 cr
Instructor: Klink, Katherine
This laboratory course is an accompaniment to Geography/Soil 1425: Introduction to Meteorology. The lab is intended to introduce some of the methods and techniques used by atmospheric scientists to understand weather and climate. Some labs will be web-based, some observation-based, and some involve calculation and map analysis.
Class time: 100% laboratory
Work load: 5 pages of reading per week, 40 pages of writing per semester, 1 papers
Grade: 100% lab work
Exam format: No exams
Course URL: www.geog.umn.edu/faculty/klink/geog1426

Geog 1502 Maps, Visualization and Geographical Reasoning
(Sec 001); meets CLE req of Mathematical Thinking Core; 4 cr
Instructor: Harvey, Francis James
Maps are for most people the most common form of geographic communication. This course will introduce you to the world of maps and their mathematical foundation. With a better understanding of the roles of maps in communication and computational techniques involved in collecting, preparing, and presenting maps and geographic information, this course prepares you for working in many areas with maps and geographic information. Geography 1502 serves as an introduction to courses in cartography and geographic information science (GIS) offered by the Department of Geography, including Geography 3561: Principles of Geographic Information Science and Geography 3511: Principles of Cartography. In exercises you will work with both conventional paper maps and computer-based maps and geographic information to understand maps and geographic information and learn basic principles of making maps.
Class time: 30% lecture, 20% discussion, 50% laboratory
Work load: 10-30 pages of reading per week, 2 exams
Grade: 20% mid-semester exam(s), 30% final exam, 10% class participation, 40% lab work
Exam format: Multiple choice, matching, calculations

Geog 1973W Geography of the Twin Cities
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructors: Adams, John S **!!Outstanding Service Award!!**; Martin, Judith A **!!Morse Alumni Award!!**
Our course is an introductory survey of the historical and contemporary geography of the Twin Cities 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 rather than in another pattern? What are things like at the neighborhood level? How did patterns evole to become what they are today? How do economic and demographic forces produce changes on the landscape? How do publicly sponsored planning and redevelopment efforts attempt to correct the consequences of past actions while guiding us toward the future? Take-home assignments are self-guided field studies of selected parts of the St. Paul and Minneapolis areas. Assignments contain specific instructions to follow certain routes and discuss specific questions and themes at specified locations after making observations at those places. Your field assignments provide opportunities to draw on class work, readings, observation, and your thinking. Past experience with various versions of these assignments tells us that each one requires six to twelve hours in the field, and three to six hours preparing field reports.
Class time: 60% lecture, 10% cctv, 30% discussion
Work load: 30 pages of reading per week, 30 pages of writing per semester, 2 exams, 2 papers
Grade: 25% mid-semester exam(s), 25% final exam, 50%, 2 field projects
Exam format: Short essay

Geog 3101 Geography of the United States and Canada
(Sec 001); Credit will not be granted if credit has been received for: GEOG 3102; prereq—=3102; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Hart, John Fraser
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.
Class time: 100% lecture
Work load: 25 pages of reading per week, 8 pages of writing per semester, 3 exams, 1 papers
Grade: 60% mid-semester exam(s), 30% final exam, 10% written reports/papers
Exam format: Multiple choice based on maps

Geog 3141 Africa
(Sec 001); Credit will not be granted if credit has been received for: AFRO 3141; meets CLE req of Environment Theme; meets CLE req of International Perspect Theme; 3 cr
Instructor: Scott, Earl P
This course introduces students to the human and environmental diversity of Africa and examines the effects of internal and external forces on the spatial organization of African economies and societies. Geographic (case) studies are used to discuss important developmental issues, which reflect modern trends and gender conditions. The method is to examine selected topics and themes in depth rather than to present general pictures of individual nations. The course focuses on two broad themes: Man-Environment relations (as reflected in built landscapes) and Political and Economic Transformations, especially the rise of democracies and free market economies. The selected sample of topics and themes is representative of the African continent, but greater attention is given to regions south of the Sahara. The course, Geog 3141 is cross-listed with Dept of Afro-American and African Studies; Afro 3141.
Exam format: Multiple choice

Geog 3361W Land Use, Landscapes, and the Law
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Squires, Roderick H
Individuals, corporations, and governments use the nations's land surface, water, and air to produce goods (food products, houses, landmines, automobiles, software, and paperclips) and to provide services (education, freedom, health, and welfare). In doing so they construct the artifacts that we see and create the places that we recognize. Landscapes, assemblages of artifacts, and places represent the outcome of rational decisions made by individuals, corporations, and governments. These decisions are made, in part, against a backdrop of the incessant, and often acrimonious, national debate concerning the role and responsibility of the federal government. To understand the decisions, and thus truly appreciate landscapes and places, we must understand how the federal government operates, how individuals in the legislative, administrative, and judicial branches of the government reach consensus and compromise about social goals and appropriate individual, corporate, and governmental behavior, and so create incentives, and dis-incentives, for certain types of behavior. We will pay particular attention to some of the documents that are produced during the national debate, the outcome of which is usually termed 'federal policy'. The course examines landscapes and places as political statements that reflect a past and a present and provide a basis for a future. Target audience, undergraduates in any major.
Class time: 60% lecture, 40% laboratory
Work load: 6 papers
Grade: 100% written reports/papers
Course URL: www.geog.umn.edu/faculty/squires/courses/366100.html

Geog 3371W Cities, Citizens, and Communities
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
When you think of the word "city" what comes to mind? A place of high culture? A grimy place of crime, fear, and desolation? In this class we will examine different aspects of cities and urban social life. The primary goal of this class is to provide you with an interpretative geographical framework for understanding the historical and contemporary processes that shape American cities. Another major goal is to encourage you to increase your awareness, enjoyment, and involvement in city life. A third goal is to help you become aware of the ways in which the city is a contested space, one which contains within it different groups vying for power, influence, and even legitimacy. You will complete a group field exercise that involves walking, mapping and analyzing the Minneapolis Central Business District. You will also work in groups to study community life in Twin Cities neighborhoods. Written assignments and class discussions will encourage you to examine critically your experiences in urban spaces and neighborhoods, and to interact with and learn from local residents. Students may also complete a Community Service Learning internship in conjunction with the course, for which they can earn an additional 1-2 credits.
Class time: 70% lecture, 10% discussion, 20% Group projects
Work load: 45 pages of reading per week, 30 pages of writing per semester, 2 papers, One group presentation
Grade: 40% special projects, 5% class participation, 35% problem solving, 20% , Two sets of study question answers

Geog 3531 Numerical Spatial Analysis
(Sec 001); 4 cr
Instructor: Skaggs, Richard H
This course is intended primarily for undergraduate geography majors. Geographers often need to describe and analyze the quantitative and qualitative attributes of phenomena distributed in space. Some examples of the phenomena include air temperature, land value, soil type, store location, population density, land use, tornado occurence, and crop yield. In this course we learn some of the basic methods for describing and analyzing quantitative and qualitative spatial and non-spatial distributions. Methods for exploring distributions to discover research questions, describing distributions, comparing two or more distributions, and determining relationships between two or more distributions will be covered. The instructional method throughout the course is examples and problem solving. For most topics there is an overview of the methods followed by examples worked out in class. After the examples, actual research questions are presented and we work through selecting the appropriate method or methods to answer the questions. Computer laboratory exercises using a statistical analysis program are used to reinforce the problem solving in class. The mid-term and final exams are exclusively problem solving.
Class time: 30% lecture, 30% discussion, 20% laboratory
Work load: 30 pages of reading per week, 10 laboratory exercises
Grade: 25% mid-semester exam(s), 50% final exam, 25% problem solving
Exam format: problem solving

Geog 3605W Geographical Perspectives on Planning
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Miller, Roger P **!!Morse Alumni Award!!**
This course introduces the history of planning, the contexts within which it arose, and how it has responded to social, economic, and political pressures to influence the shape and direction of contemporary urban development. A second goal of this course is to address issues of how planning encourages or discourages citizen participation in controlling the built urban environment and the kinds of activities that occur within it. Has planning made for greater or lesser amounts of public participation in urban development? Is planning primarily a neutral, technical handmaiden to public policy processes, or does it function in ways that benefit certain groups at the expense of others? We will examine these questions using examples from North America, Great Britain, France, Germany, Austria, the former Soviet Union, Scandinavia, Latin America, and other Third World settings. In addition to lecture and discussion, students participate in a group project in which they interact with planning agencies and neighborhood organizations around current planning controversies or development projects. Some students may be able to do this through an extra-credit community service learning internship. Please contact the instructor for further information. The requirements for Geog 5605W are the same as those for Geog 3605W, with the addition of a research paper, 13—19 pages in length.
Class time: 70% lecture, 10% discussion, 20% Group project
Work load: 60 pages of reading per week, 25 pages of writing per semester, 0 exams, 3 papers, Two study question sets
Grade: 65% written reports/papers, 5% in-class presentations, 5% class participation, 25% , Study questions
Exam format: None

Geog 3973W Geography of the Twin Cities
(Sec 001); prereq—=1973; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructors: Adams, John S **!!Outstanding Service Award!!**; Martin, Judith A **!!Morse Alumni Award!!**
Our course is an introductory survey of the historical and contemporary geography of the Twin Cities 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 rather than in another pattern? What are things like at the neighborhood level? How did patterns evolve to become what they are today? How do economic and demographic forces produce changes on the landscape? How do publicly sponsored planning and redevelopment efforts attempt to correct the consequences of past actions while guiding us toward the future? Take-home assignments are self-guided field studies of selected parts of the St. Paul and Minneapolis areas. Assignments contain specific instructions to follow certain routes and discuss specific questions and themes at specific locations after making observations at those places. Your field assignments provide opportunities to draw on class work, readings, observation and your thinking. Past experience with various versions of these assignments tells us that each one requires six to twelve hours in the field, and three to six hours preparing field reports.
Class time: 60% lecture, 10% cctv, 30% discussion
Work load: 30 pages of reading per week, 30 pages of writing per semester, 2 exams, 2 papers
Grade: 25% mid-semester exam(s), 25% final exam, 50%, 2 field projects
Exam format: Short essay

Geog 5426 Climatic Variations
(Sec 001); prereq—1425 or 3401 or instr consent; 3 cr
Instructor: Skaggs, Richard H
The first three weeks will present a "short course" on atmospheric dynamics concentrating on mid-latitude atmospheric circulation including topics such as upper atmosphere troughs and ridges, short waves and long waves, and the connection between upper atmosphere circulation and surface circulation and "weather". In the next several weeks, time will be split between readings and discussion of the potential causes of climate variations and methods of analysis of time series of climatic time series. There will be common and individual readings for some potential causes of climate variations: solar variability; atmospheric gases; atmospheric particulates; surface/atmosphere feedbacks such as sea surface temperatures, and autovariability. Participants will select a climatic time series (or a climate proxy time series) from their own work or from long temperature series from the global historical climatology data base. Methods of analyses of will be discussed in class including: exploratory data analysis; methods of time series smoothing; detection of trends; detection of discontinuites, and multiple stage regression. Evaluation of students will be based on two factors, participation in the class discussions of rhe readings and a research paper based upon the time series selected for study.
Class time: 25% lecture, 75% discussion
Work load: 60 pages of reading per week, 15 pages of writing per semester, 1 papers
Grade: 50% written reports/papers, 25% in-class presentations, 25% class participation

Geog 5531 Numerical Spatial Analysis
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 3531; 4 cr
Instructor: Skaggs, Richard H
Geographers often need to describe and analyze the quantitative and qualitative attributes of phenomena distributed in space. Some examples of the phenomena include air temperature, land value, soil type, store location, population density, land use, tornado occurence, and crop yield. In this course we learn some of the basic methods for describing and analyzing quantitative and qualitative spatial and non-spatial distributions. Methods for exploring distributions to discover research questions, describing distributions, comparing two or more distributions, and determining relationships between two or more distributions will be covered. The instructional method throughout the course is examples and problem solving. For most topics there is an overview of the methods followed by examples worked out in class. After the examples, actual research questions are presented and we work through selecting the appropriate method or methods to answer the questions. Computer laboratory exercises using a statistical analysis program are used to reinforce the problem solving in class. The mid-term and final exams are exclusively problem solving.

Geog 5605W Geographical Perspectives on Planning
(Sec 001); Same as: PA 5203W; prereq—credit will not be granted if credit received for: 3605W, PA 5203W ; Grad student or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Miller, Roger P **!!Morse Alumni Award!!**
This course introduces the history of planning, the contexts within which it arose, and how it has responded to social, economic, and political pressures to influence the shape and direction of contemporary urban development. A second goal of this course is to address issues of how planning encourages or discourages citizen participation in controlling the built urban envrionemnt and the kinds of activities that occur within it. Has planning made for greater or lesser amounts of public participation in urban development? Is planning primarily a neutral, technical handmaiden to public policy processes, or does it function in ways that benefit certain groups at the expense of others? We will examine these questions using examples from North America, Great Britain, France, Germany, Austria, the former Soviet Union, Scandinavia, Latin America, and other Third World settings. In addition to lecture and discussion, students participate in a group project in which they interact with planning agencies and neighborhood organizations around current planning controversies or development projects. Some students may be able to do this through an extra-credit community service learning internship. Please contact the instructor for further information. The requirements for Geog 5605W are the same as those for Geog 3605W, with the addition of a research paper, 13—19 pages in length.
Class time: 70% lecture, 10% discussion, 20% Group projects
Work load: 60 pages of reading per week, 35 pages of writing per semester, 0 exams, 4 papers, Two study question sets
Grade: 70% written reports/papers, 5% in-class presentations, 5% class participation, 20% , Study questions
Exam format: None

Geological Engineering
122 Civil & Mineral Engineering: 612-625-5522

GeoE 3301 Soil Mechanics I
(Sec 001); Same as: CE 3301; A-F only; prereq—IT student, AEM 3031; 3 cr
Instructor: Guzina, Bojan B
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 distrivution in soil deposits due to foundation loads, permeability and seepage. Text: B.M. Das, "Fundamentals of Geotechnical Engineering".
Class time: 70% lecture, 30% laboratory
Work load: 20 pages of reading per week, 2 exams, 2 quizzes, 8 homework assignments, 7 labs/reports
Grade: 27% mid-semester exam(s), 30% final exam, 10% quizzes, 21% lab work, 12% problem solving
Exam format: Multiple choice

GeoE 4102W Capstone Design
(Sec 001, 002); A-F only; prereq—CE, GeoE, or Geo upper division or graduate student or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Stefan, Heinz G
Teams of 3 to 4 students solve civil engineering problems posed by practicing engineers (mentors). From problem description through formulation of objectives, conceptual solutions, preliminary planning and analysis, design, environmental impact assessment, final plans/specifications, cost analysis and recommendations. Each team makes three presentations. Draft report and a final project report are required.
Class time: 10% discussion, 90% Team work on an engineering project
Work load: 10-20 pages of reading per week, 60 pages of writing per semester, 0 exams, 3 papers
Grade: 80% written reports/papers, 20% in-class presentations

Geology and Geophysics
106 Pillsbury Hall: 612-624-1333

Geo 1001 The Dynamic Earth: An Introduction to Geology
(Sec 001-004, 101-120); Credit will not be granted if credit has been received for: GEO 2111, GEO 2111H, GEO 1101; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: STAFF
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 plant'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.
Class time: 55% lecture, 40% laboratory, 5% Videos
Work load: 40 pages of reading per week, 4 exams
Grade: 40% mid-semester exam(s), 25% final exam, 10% quizzes, 25% lab work
Exam format: Mid-term: Multiple choice, short answer/short essay; Final: multiple choice.
Course URL: www.geo.umn.edu/courses/1001/

Geo 1002 Earth History

(Sec 001); Credit will not be granted if credit has been received for: GEO 5002, GEO 1102; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: Fox, David L.
This course is an introduction to the history of the Earth and its life over the last 4.6 billion years. On the scale of a human life span, the Earth may seem to some a static place, but it has actually been remarkably dynamic over its entire history. The continents have collided together into supercontinents and separated again, majestic mountain ranges have risen up and worn down, ice sheets have covered the Earth's surface and melted away, entire ecosystems of bizarre and fantastic plants and animals have evolved and disappeared. The story of the ever changing Earth and its inhabitants is written in the rocks that make up the Earth, the fossils of past life forms found in those rocks, and the diversity of life on Earth today. To read this story, we will first learn some of the basic language and principles used by geologists, paleontologists, and biologists to describe and understand the history of our planet. Key concepts include Earth materials, depositional environments, the geological timescale, plate tectonics, and evolutionary theory. In the rest of the course, we will use these basic principles to examine the evolution of life in the context of the tectonic and climatic history of the Earth. Topics in the history of life will include the earliest evidence for life, the Cambrian explosion, the origin of ecosystems on land, life in the time of the dinosaurs, and the evolution of mammals, including humans. The course is designed for undergraduate non-majors.
Work load: The laboratory will provide additional information and exercises to reinforce understanding of the b

Geo 1101 Introduction to Geology

(Sec 100); Credit will not be granted if credit has been received for: GEO 1001, GEO 1001, GEO 2111, GEO 2111H; meets CLE req of Environment Theme; 3 cr
Instructor: STAFF
A lecture-only version of GEO 1001, this course will provide 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. 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 1101 satisfies the Diversified Core Curriculum's requirement for the environmental theme. This course is designed for undergraduate students that are not geology majors. There are no college prerequisites.
Class time: 95% lecture, 5% Video
Work load: 40 pages of reading per week, 4 exams
Grade: 60% mid-semester exam(s), 40% final exam
Exam format: Quizzes: Multiple choice, short answer/short essay Final: Multiple choice only
Course URL: www.geo.umn.edu/courses/1101/index.html

Geo 2201 Geodynamics I: The Solid Earth

(Sec 001); prereq—concurrent enrollment Phys 1301 or instr consent; 3 cr
Instructors: Banerjee, Subir K **!!Technology Professorship!!**; Stout, James H
This is the first course for undergraduates who are interested in degrees in Geology (BA or BS) and geophysics (BS). The course begins with a discussion of the earth in space including the formation of the earth and its internal structure. We then move on to a first look at plate tectonics, covering the origin of plates, their geometry, Euler poles and the origin of magnetic stripes. These concepts provide the basis for understanding the origin and age of continents and ocean basins. From there the course covers topics of global geophysics including earthquake seismology, focal plane solutions, composition of the earth's interior, heat flow, geomagnetism, paleomagnetism, gravity and isostasy. Although a whole earth perspective is provided during this part of the course, the geophysical evidence supporting plate tectonics is strongly emphasized here. With this background, plate tectonics is revisited but with a more in-depth discussion of plates in velocity space, tectonics on a sphere, triple junctions, absolute plate motions, and possible driving forces. Throughout the course, geological evidence is integrated with geophysical concepts to extend plate tectonic processes back in time.
Class time: 75% lecture, 20% laboratory, 5% field trip
Work load: 20 pages of reading per week, 3 exams
Grade: 50% mid-semester exam(s), 25% final exam, 20% lab work, 5% , field trip
Exam format: essay and short answer
Course URL: www.geo.umn.edu/courses/

Geo 3093 Problems in Geology and Geophysics: Junior

(Sec 001); max crs 6; 6 repeats allowed; prereq—instr consent; 1-4 cr
Instructor: STAFF
Students interested in working on a particular problem or issue in either geology or geophysics can contact the department office for refferal to appropriate faculty members. Students will work on a one-to-one basis with a faculty member. Projects may include literature review, labortatory or field work, or computer moddeling. 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.
Class time: varies with instructions
Work load: varies with instructions
Grade: varies with instructions
Exam format: varies with instructions

Geo 4010 Undergraduate Seminar: Current Topics in Geology and Geophysics

(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent; 1-4 cr
Instructor: STAFF
Seminar courses are offered to undergraduate students on varying topics taught by departmental faculty. Students interested in learning which seminars are offered during a semester should contact either the department office or individual faculty members. Credit for seminar courses vary from 1-4 credits and this course may be taken more than once.
Class time: varies with instructions
Work load: varies with instructions
Grade: varies with instructions
Exam format: varies with instructions

Geo 4093 Problems in Geology and Geophysics: Senior

(Sec 001); max crs 6; 6 repeats allowed; prereq—instr consent; 1-4 cr
Instructor: STAFF
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.

Geo 4094 Senior Thesis

(Sec 001); max crs 4; prereq—Sr, Geo or GeoPhys major, instr consent; 2 cr
Instructor: STAFF
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.
Class time: varies with instructions
Work load: varies with instructions
Grade: varies with instructions
Exam format: varies with instructions

Geo 4203 Principles of Geophysical Exploration

(Sec 001); prereq—Phys 1302; 3 cr
Instructors: Moskowitz, Bruce Matthew; Chandler, Val W
This course deals with the applications of geophysical techniquest for subsurface exploration and characterization or mineral and energy resources, geotechnical, site investigation, and enviromental problems, and for global studies of the earth's interior. However, the main emphasis is on the shallow subsurface environment. Topics include potential field techniques (gravity and magnetics), seismic exploration (reflection and refraction), and electrical and electromagnetic methods. For each topic, the development will proceed from basic principles through methodology to applications. Grading is based on a combination of problem sets, midterm exams, and a final exam. The course is designed for, but not limited to, undergraduate majors and graduate students in geology, geophysics, geological engineering and related fields.
Class time: 100% lecture

Work load: 10 pages of reading per week, 3 exams, 6 problem sets
Grade: 40% mid-semester exam(s), 30% final exam, 30% problem solving
Exam format: mixed short answer, multiple choice, and simple problems

Geo 4631W Earth Systems: Geosphere/Biosphere Interactions
(Sec 001); Same as: EEB 4631; max crs 4; prereq—3401; meets CLE req of Writing Intensive; 3 cr
Instructor: Ito, Emi
This course is intended as the cap-stone course for the geology undergraduate core education. Most courses have little time available for exploring the connections between different subjects, for example between tectonics and geochemistry. This course will explore the connections among different parts of the Earth with the emphasis on the part that affects humans most, the surface environment or the climate. In particular, how biosphere and its connections with the geosphere affect the Earth's climate will be emphasized. The first half of the course, titled Systems and Cycles, will look at several key cycles of importance to sustaining life, and will also define the climate system. Greenhouse gasses and their possible effect on the climate system will be examined. The second half of the course, titled Global Climate Change, will look at time-scales of climate change. Forcing functions that have acted upon geosphere and biosphere operate at different time-scales, from billions of years to seasons. Examples include the effect of (1) evolution of plants on Earth's atmosphere, (2) plate tectonics on initiating ice ages, (3) Earth's orbital parameters on glacial-interglacial cycles, and (4) El Nino cycles on drought paterns. The course assumes that the students have completed the sophomore- and junior-level geology majors' courses, especially Geo 4602.
Class time: 60% lecture, 10% discussion, 30% laboratory
Work load: 30 pages of reading per week, 2 exams, 1 papers, 1 poster presentation; Paperwork is in progress to make this a Writing Intensive course
Grade: 25% mid-semester exam(s), 30% final exam, 25% written reports/papers, 10% lab work, 10%, The weight given to the laboratory exercises is 10%, but a student must pass the laboratory in order
Exam format: Take-home essay questions
Course URL: www.geo.umn.edu/courses/4631

Geo 5353 Electron Microprobe Theory and Practice
(Sec 001); max crs 3; prereq—2301, one yr chem and physics or instr consent; 2-3 cr
Instructor: Mc Swiggen, Peter L
The purpose of this course is to teach both the theory and practical aspects of using an electron microprobe. The class will cover the theory of electron-matter interaction, with emphasis on the generation of X-rays using an electron beam. In addition, it covers the principles and practical implications of using an electron microprobe to determine the composition of solids on a micron scale and to image those compositional variations. The course consists of lectures and an optional lab. Students can sign up for just the lectures for 2 credits, or for both the lecture and a lab for 3 credits. The course is intended for upper division undergraduates and graduate students in geology, material sciences or related fields.
Class time: 50% lecture, 50% laboratory
Work load: 30 pages of reading per week, 3 exams
Grade: 33% mid-semester exam(s), 33% final exam, 33% lab work
Exam format: Essay/short answer

Geo 5601 Advanced Sedimentology
(Sec 001); prereq—4602 or instr consent; 4 cr
Instructor: Kleinspehn, Karen L
This course explores sedimentary basins and their processes from the submicroscopic to basin scale with a focus on the petrology of clastic and carbonate deposits, tectonic and paleoclimatic records, paleocurrent and provenance analysis, thermal histories, diagenetic effects on subsurface fluid flow, and volcanic sedimentation. An additional goal is to interpret and predict deposits associated with alluvial fans, marine/lacustine fan deltas, aeolian settings and tidal systems, which are revisited on a field trip to the Precambrian Mid-Continent Rift. Remaining lecture topics are based on the interests of the class registrants and might include glacial settings, fluvial systems, coasts, storms, tsunamis, turbidite fans, carbonate platfoms, continental shelves, deep-sea trenches and/or abyssal plains. Lectures are supported by slides of outcrops or modern deposits from multiple parts of the world. No textbook is assigned, but vigorous class discussion is based on in-class exercises and reading assignments from the current geoscience literature. Students write reviews of recently published journal articles and a 10-12 page paper and present their paper topic in an informal in-class poster session. A required fieldtrip to the Upper Peninsula, Michigan, will be held Sept 28-30, 2001. This course is for graduate students and upper-level undergraduates who have completed Geo 4602, Sedimentology and Stratigraphy, or an equivalent course.
Class time: 75% lecture, 25% discussion
Work load: 15-20 pages of writing per semester, 0 exams, 1 papers
Exam format: No exams

Geo 5701 General Hydrogeology
(Sec 001); prereq—Chem 1022, Math 1271, Phys 1201, Geo majors-core curriculum through 2402 or instr consent; 4 cr
Instructors: Alexander, Jr, E. Calvin **!!Geo Taylor/IT Alumni Soc Award, Distinguished Teaching!!**; Pfannkuch, Hans-Olaf
Groundwater occurrence, movement and interaction with its geologic framework is treated following four fundamental aspects: groundwater as a natural system, a resource, an environmental system, and a managed system. As a natural system it it an integral part of the hydrologic cycle which determines its distribution, movement and interactoin with the geologic, hydrogeologic and hydrogeochemical framework. The surface water/groundwater interface is emphasized. As a resource, its exploration, development, production and the available tools for mapping and simulation are presented. As an environmental system: aquifers act as dispersive propagation systems for chemical or pollution stresses, from which the groundwater resource and the environment have to be protected. Groundwater asa managed system deals with an integrated approach to its use, conservation, remediation, and quality control in the context of a larger holistic water resources picture. The objective of the course is to give a complete and self-consistent overview of hydrogeology with emphasis on a geologic approach to students interested in a survey, and to serve as an introduction for those wishing to pursue their professional intersts in hydrogeology further. The course will involve the use of field observations, chemical data, and modeling as basic tools to understand and manage the groundwater resource.
Class time: 50% lecture, 30% laboratory, 15% Field trips
Work load: 40 pages of reading per week, 2 exams, 10 lab reports
Grade: 20% mid-semester exam(s), 45% final exam, 10% class participation, 25% lab work
Exam format: 10 short questions, 5 paragraph questions, 1-2 essay or problem questions

German
205 Folwell Hall 612-625-2080

Ger 1001 Beginning German
(Sec 001-011); 5 cr
Instructor: STAFF
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 Schriftbilder, which focuses on family life in Germany, 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.
Class time: 100% mostly discussion and student involvement and interaction.
Grade: 20% final exam, 40% quizzes, 24% class participation, 16%, reading/group work assignments.
Exam format: written.

Ger 1002 Beginning German
(Sec 001-006); prereq—1001; 5 cr
Instructor: STAFF
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 Schriftbilder, 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.

Class time: 100% Mostly discussion and student involvement and interaction.
Grade: 20% final exam, 12% written reports/papers, 28% quizzes, 26% class participation, 14% , reading/group work assignments
Exam format: written

Ger 1003 Intermediate German

(Sec 001-009); prereq—1002 or Entrance Proficiency Test; 5 cr
Instructor: STAFF
Students in this course will be using the textbook Spiralen, which is accompanied by a workbook and both audio and video tapes. Topics covered in this course will include fairy tales, living situations, free-time activities and social interactions, the German educational system, and career decisions. The program has a communicative and functional orientation. The textbook includes authentic materials, many visuals, contemporary informational readings, and literary texts. 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, and role-plays. Several class sessions will familiarize students with available computer drills, spell-checkers, and Internet resources. Process-writing essays and interviews are part of the course work.
Class time: varies with instructor
Work load: Expect around 2 hours preparation time for each class session.
Grade: 20% final exam, 12% written reports/papers, 4% special projects, 32% quizzes, 8% in-class presentations, 24% class participation
Exam format: written, oral interviews

Ger 1004 Intermediate German

(Sec 001-005); prereq—1003 or completion of Entrance Proficiency Test at 1004 level; 5 cr
Instructor: STAFF
This course continues the review of language structures begun in German 1003, using the textbook Spiralen and the accompanying workbook, audio and video tapes. Topics covered in this course will include the media, social issues and environmental questions. The program has a communicative and functional orientation. The textbook includes authentic cultural materials, many visuals, contemporary informational readings, and literary texts. The special focus of German 1004 is the extension of listening and writing skills. Regular recycling of grammar and vocabulary encourages students to become more fluent in their use of the language and to apply it creatively in new contexts. Students will participate regularly in conversational activities, small group work, and role-plays. Several class sessions will familiarize students with available computer drills, spell-checkers, and Internet resources. Process-writing essays and interviews are part of the course work. Student enrolled in this course will have the opportunity to take the Graduation Proficiency Test (GPT) during the second half of the term.
Class time: 100% varies with instructor.
Work load: Expect around 2 hours preparation time per class session.
Grade: 20% final exam, 12% written reports/papers, 32% quizzes, 12% in-class presentations, 24% class participation
Exam format: written, oral interviews

Ger 1022 Beginning German Review

(Sec 001-003); prereq—Placement above 1001; 5 cr
Instructor: STAFF
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. 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 preperation. URL not known can be found in class web.
Work load: 2 hours expected per class session.
Grade: 20% final exam, 12% written reports/papers, 28% quizzes, 24% class participation, 16%, 14% reading/group assignments, 2% interviews
Exam format: Written

Ger 1909W Freshman Seminar: Honors: Fleeing Hitler:German, Austrian Directors

(Sec 001); A-F only; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Mc Cormick, Richard W
This is an Honors Freshman Seminar that investigates the work done by some famous German and Austrian film directors who came to Hollywood between the early 1920s and the 1940s. Ernst Lubitsch came already in the 1920s, but when the Nazis came to power in 1933, he was not able to not return to Germany because of his Jewish heritage. Others, like Fritz Lang, Billy Wilder, and Douglas Sirk (Detlef Sierck) came during the 1930s to escape the Nazi regime because they had Jewish or partial Jewish ancestry—or in Sirk's case, because his wife was Jewish. The German cinema's loss was the American cinema's gain, as styles and techniques of the German cinema like Expressionism and New Objectivity were fused with American elements to create new entities such as the genre we now call "film noir". The exile directors also made political films for the war effort against the Nazis in the 1940s. The legacy of their work in Hollywood lives on not just in contemporary American cinema but in the postwar European cinema, where filmmakers like Fassbinder in Germany and Godard in France were strongly influenced by this transplanted tradition. In the course we will look first at some of the German films by these directors, then at some of their American films, and finally at a Fassbinder remake of one of Sirk's Hollywood films. (The films in German will have English subtitles.)
Class time: 20% lecture, 40% discussion, 40% Film viewings
Work load: 20-30 pages of reading per week, 10-15 pages of writing per semester, 0 exams, 2 papers, Informal journal entries: min 1 page each per film
Grade: 50% written reports/papers, 25% class participation, 25% , Informal journal responses to films
Exam format: No exams

Ger 3011W Conversation and Composition

(Sec 001-004); prereq—Passing score on the Graduation Proficiency Test; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course is communicatively oriented and designed to refine students' oral and written expression and aid in the development of critical analysis skills. The textbook Ubergange will guide students through an introduction to several important communicative modes of language (description, narrative, debate, report, text analysis), while Sprachbau will provide a comprehensive grammar review which includes finer, level-appropriate grammar points. Computer exercises, video clips, and feature films will complement the other instructional materials. Active class participation, essay writing and revision, individual and group oral presentations and projects, and informal writing assignments of varying lengths will form the basis of your grade.
Class time: 100% varies with instructor
Work load: Expect at least 2 hours preparation time per class session.
Grade: 10% final exam, 30% written reports/papers, 20% quizzes, 10% in-class presentations, 10% class participation, 20% , oral interview and weekly journals
Exam format: written, oral

Ger 3012W Conversation and Composition

(Sec 001, 002); prereq—3011; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course, the continuation of German 3011, is communicatively oriented and designed to refine students' oral and written expression and aid in the development of critical analysis skills. The textbook Ubergange will guide students through an introduction to several important communicative modes of language (description, summary, film and literary reviews, persuasive speaking, text analysis). We will also work to improve individual problem grammar areas for students and reach a greater level of abstraction and sophistication in German. Computer exercises, video clips, and feature films will complement the other instructional materials. Active class participation, essay writing and revision, individual and group oral presentations and projects, and informal writing assignments of varying lengths will form the basis of your grade.
Class time: varies with instructor.
Work load: Expect at least 2 hours preparation time per class session.
Grade: 30% written reports/papers, 20% quizzes, 20% in-class presentations, 10% , weekly journals

Ger 3021 Business German
(Sec 001); prereq—3012 or equiv; 3 cr
Instructor: Oosterhoff, Jenneke A **!!Outstanding Service Award, CLA!!**
Are you a student in German Studies, International Business and Management or International Relations? If you expect to work in a business environment in which German is used, or if you are simply interested in German business, commerce, and economics, then this is the course for you! You will be introduced to different aspects of the German business world and learn the language and discourse used in German business and economics. You will become familiar with German business transactions and correspondence, explore the internet, and learn how to read and interpret charts and statistics. We will develop comprehension techniques through readings and exercises in the textbook, and we will further practice them through the exposure to news broadcasts, newspaper articles, and other pertinent publications. Students who successfully complete this course can enroll in German 3022, Advanced Business German, a course that is designed to prepare students for the Zertifikat Deutsch fur den Beruf.
Class time: 30% lecture, 70% discussion and interactive exercises
Work load: A minimum of two hours preparation per class session; weekly quizzes; business letters; text summari
Grade: 5% written reports/papers, 20% quizzes, 20% class participation, 25% , written assignments, 20% written final, 10% oral final

Ger 3104W Reading and Analysis of German Literature
(Sec 001, 002); prereq—3012; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course introduces students to selected masterpieces of German literature (prose, poetry and drama) and to the basic skills of literary interpretation. As a Writing Intensive course, it will also train students to formulate interpretative arguments in logical, written form, supported by textual evidence. Strong emphasis is placed on class discussion, in which you are encouraged to respond critically and thoughtfully to the assigned texts. Readings have been chosen on the basis of their provocative content, as well as their superb literary quality. Conducted in German.
Class time: 20% lecture, 80% discussion
Work load: 20-25 pages of reading per week, 15 pages of writing per semester

Ger 3441 20th-Century Literature
(Sec 001); prereq—3104; 3 cr
Instructor: Morris, Leslie C
This course will explore the various meanings of "the Other" in a range of literary texts (short stories, novels, drama, poetry, memoir) from the early to the late twentieth century. We will examine how such figures as the artist, Jew, homosexual, Turk, psychotic/hysteric are figured as "other" in a range of literary texts spanning a number of periods. Works by, among others, Kafka, Freud, Rilke, Musil, Mann, Doblin, Brecht, Keun, Seghers, Schneider, Bachmann, Konigsdorf, Honigmann, and +zdamar. Course conducted in German.
Class time: 20% lecture, 80% discussion
Work load: 60 pages of reading per week, 15 pages of writing per semester, 1 exams
Grade: 15% mid-semester exam(s), 60% written reports/papers, 25% class participation
Exam format: Essay

Ger 3501 Contemporary Germany
(Sec 001); prereq—prereq—3012 or concurrent enrollment 3012; 3 cr
Instructor: Reutter, Werner
This course offers an introduction into historical, political, social, and cultural dimensions of contemporary Germany. In the first part of the course we will discuss the social, economic, and cultural changes that took place in Germany after 1945 and we will deal with the institutional framework of the (West) German polity. Secondly, we will focus on contemporary political and cultural issues in Germany. Required Reading: David P. Conradt, 1996: "The German Polity", 6th edition, New York/ London: Longman; Lothar Kettenacker, 1997: "Germany since 1945", Oxford/New York: Oxford University Press; Peter H. Merkl (ed.), 1999: "The Federal Republic of Germany at Fifty: The End of a Century of Turmoil", Houndmills: Macmillan.
Class time: 50% lecture, 30% discussion, 20% Presentations of students films, etc
Work load: 50-70 pages of reading per week, 10-12 pages of writing per semester, 2 exams
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/ papers, 10% in-class presentations, 10% class participation
Exam format: Essay

Ger 3511W German Civilization and Culture: Middle Ages to 1700
(Sec 001); prereq—=MeSt 3610; meets CLE req of Writing Intensive; 4 cr
Instructor: Parente, James Andrew
This course, with lectures in English, offers an overview of the cultural, political, and social development of the German-speaking countries from the earliest days of contact between the Germanic tribes and the Romans (first century CE) until 1700. Emphasis will be placed on the way in which present-day Germany views its medieval and early modern past, and the role of the Middle Ages, the Reformation, and the Thirty Years War in the creation of a German national identity. Topics to be discussed include myths about the origins of the Germans, the Germanic reshaping of the ancient Roman world, the role of the German Empire in the development of medieval Christianity, social position of women in medieval and early modern times, medieval and early modern court culture, Reformation and Counter-Reformation debates; early modern revolutions and war; Baroque culture in the German Empire. Lectures provide the cultural- and intellectual-historical background for the discussion of many types of cultural artifacts, e.g., literary, historical, religious, and philosophical texts; paintings, engravings, architecture; medieval and early modern music. Authors to be discussed include Tacitus, Einhard, Hildegard von Bingen, Celtes, Luther, Grimmelshausen et al. German-language discussion section for German majors and minors is available. This Writing-Intensive course will require 2 formal papers; opportunity will be given for submission of at least one draft for each paper.
Class time: 65% lecture, 35% discussion
Work load: 50-75 pages of reading per week, 15 pages of formal writing (2 essays); informal writing (reading journal, approx 10 pages total); No
Grade: 40% examinations (2 in-class exams); 40% formal writing; 20% attendance, class participation, inform
Exam format: identifications; essays

Ger 3593 Directed Studies: German-Speaking Countries
(Sec 001); max crs 12; 3 repeats allowed; prereq—3012, dept consent; 4 cr
Instructor: STAFF
Preparation for research abroad during semester before departure. Written and oral reports upon return.

Ger 3634 German Women and Cultural History: Constructing Selves in Narrative Texts
(Sec 001); prereq—No knowledge of German required; cr toward major or minor requires reading in German; meets CLE req of Literature Core; 3 cr
Instructor: Joeres, Ruth-Ellen B
This examination of narrative texts by German women in the 20th century has a dual focus: a contextual concern with the cultural and literary history of German women as writers and artists, and a textual focus on how we read and gain knowledge from a variety of narrative genres, from novels/short stories to memoirs/personal narratives. Specificities of the German context will always be present: the ongoing significance of prescriptive and traditional gender roles, the negotiations that German women writers have had to use in dealing with an ideology of rigidly defined social femininity, and the inevitable ambiguities and contradictions that emerge. An examination such as this reveals that national, political, and social events shape everyone, especially those who represent the ostensibly more marginal societal locations. The texts that we will read (all available in English translation) will include socially aware working-class writers whose concerns with issues like the working-class movement, politics, and class complicated the strong focus on gender difference stressed by the first German women's movement; artists whose writings and art chronicled moments in German history from the early part of the century to the years of the Holocaust; novelists depicting the dilemmas and strategies of defining a female "self" in traditional times from the vantage point of a female authorial "self" that is not traditional, German-American writers, memorists who survived the Holocaust.
Class time: 40% lecture, 60% discussion
Work load: 100-150 pages of reading per week, 10-15 pages of writing per semester, 1 exams, 2 papers
Grade: 30% final exam, 50% written reports/papers, 20% class participation
Exam format: Essay

Ger 3993 Directed Studies
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
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 5101 Analysis of German
(Sec 001); prereq—1004, Ling 3001 or Ling 5001 or instr consent; 3 cr
Instructor: STAFF
This course uses actual examples of written and spoken standard German (with emphasis on popular media in Austria and Germany, including newspaper articles and TV news). Students will be taught how to describe and explain the various linguistic structures/levels, including the interaction between phonological, graphical, morphological and syntactical structures, in German texts. Finally, the inclusion of pragmalinguistic aspects will enable us to understand the deeper intentions of everyday texts. There will be a final examination, in addition to other class assignments.

Ger 5410 Topics in German Literature: Diaspora Poetics
(Sec 001); max crs 9; 3 repeats allowed; prereq—3104 or equiv; 3 cr
Instructor: Morris, Leslie C
This course will explore what a poetics of Diaspora might mean in a range of literary, film, and visual texts from diverse geographical locations. We will explore how notions of the border, migration, nationhood, immigration, displacement, hybridity, dispersion, transnationalism, deterritorialization, the loss of origin and "reality", and nostalgia for the homeland constitute what we will be calling Diaspora poetics. The course will also examine the shifts within the term "Diaspora" in a variety of cultural and geographical contexts, with special emphasis on the complex reconfigured social and cultural spaces of Europe today. Discussion will explore the relationship between interior poetic spaces and geographical spaces of dispersion; the tension between poetic utterance and assertion and negation of place; the relationship between place and exile; and the critical interrogation of the meaning of "origin". Texts by, among others, Edmond JabFs, AimT CTsaire, Paul Celan, Octavio Paz, Fernando Pessoa, Italo Calvino, Jean Baudrillard, Theresa Cha, Adunis, Mahmoud Darwish, Yehuda Amichai, Edward Said, James Clifford, Daniel Boyarin and Jonathan Boyarin. This course is intended for graduate students and advanced undergraduates.
Class time: 20% lecture, 80% discussion
Work load: 150-200 pages of reading per week, 20-25 pages of writing per semester, 1 papers
Grade: 85% written reports/papers, 15% class participation

Ger 5711 History of the German Language I
(Sec 001); prereq—concurrent enrollment 3012; 3 cr
Instructor: Liberman, Anatoly
The recorded history of the German language is approximately twelve centuries long. Its sounds, grammatical forms, and syntax have changed radically over this period of time. We will be reading texts, the earliest of which goes back to the 9th century and the latest to the post-Reformation epoch. There will be assignments for every meeting. The excerpts from an anthology are relatively short. They will provide the students with a glimpse of older German poetry and prose, but the objective of the course is to introduce them to the development of the German language, rather than of German literature. Regular attendance is indispensable. There will be a takehome midterm and a takehome final. Lectures will alternate with discussion. This course is open to undergraduates and graduates, and one does not have to be a major to take it, but reading knolwedge of German is required. The glossary in the anthology is in German, the lectures/discussions will be in English.
Class time: 50% lecture, 50% discussion
Work load: 40 pages of reading per week, 2 exams, The texts are short, but in a dead language
Grade: 30% mid-semester exam(s), 40% final exam, 30% class participation
Exam format: Essay

Ger 5993 Directed Studies
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
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.

German, Scandinavian, and Dutch
205 Folwell Hall; 612-625-2080

GSD 3451V Honors Major Project Seminar
(Sec 001); Credit will not be granted if credit has been received for: GSD 3451, GSD 3451W; A-F only; prereq—Honors student; meets CLE req of Writing Intensive; 4 cr
Instructors: Teraoka, Arlene A; Wakefield, Ray M
All students in CLA are required to complete a major project in order to demonstrate their critical literacy and their ability to use writing as an analytical tool within their major. GSD 3451 is a required course that provides guidance and feedback to students who write their major projects for the B.A. degrees in German and Scandinavian. The course is designated as Writing Intensive. The major project completed for this course is a substantial paper, normally 20-25 pages, usually in English. You will work on your project partly in a seminar setting and partly in a directed-studies format, with the guidance and supervision of a faculty member. Each student will also be assigned a second reader from the faculty who can provide feedback on the student's project proposal, bibliography, and at least one draft of the project. Students will frequently meet on an individual basis with the instructor of the course, but the course also has several scheduled class sessions that you must attend. You can choose your own topic for the major project; the idea can come from another course or a special interest you have. It is helpful to have at least a general idea of your topic before you start the course. Projects written by Honors students are held to higher qualitative standards. Honors students are also required to participate in a formal discussion of their finished projects with their faculty readers. Summa theses require three readers; one must be outside the student's major.
Class time: 20% lecture, 30% discussion, 50% individual meetings with instructor
Work load: readings per week: dependent on research needs of individual project; 60-75 pp. of writing per semes
Grade: 90% written reports/papers, 10% class participation
Exam format: Oral exam for Honors students

GSD 3451W Major Project Seminar
(Sec 001); Credit will not be granted if credit has been received for: GSD 3451V, GSD 3452; A-F only; meets CLE req of Writing Intensive; 4 cr
Instructors: Teraoka, Arlene A; Wakefield, Ray M
All students in CLA are required to complete a major project in order to demonstrate their critical literacy and their ability to use writing as an analytical tool within their major. GSD 3451 is a required course that provides guidance and feedback to students who write their major projects for the B.A. degrees in German and Scandinavian. The course is designated as Writing Intensive. The major project completed for this course is a substantial paper, normally 20-25 pages, usually in English. You will work on your project partly in a seminar setting and partly in a directed-studies format, with the guidance and supervision of a faculty member. Each student will also be assigned a second reader from the faculty who can provide feedback on the student's project proposal, bibliography, and at least one draft of the project. Students will frequently meet on an individual basis with the instructor of the course, but the course also has several scheduled class sessions that you must attend. You can choose your own topic for the major project; the idea can come from another course or a special interest you have. It is helpful to have at least a general idea of your topic before you start the course.
Class time: 20% lecture, 30% discussion, 50% individual meetings with instructor
Work load: readings per week: dependent on research needs of individual project; 60-75 pp. of writing per semes
Grade: 90% written reports/papers, 10% class participation
Exam format: no exam

Gerontology
D-351 Mayo (Box 197 UMHC); 612-624-5904

Gero 5105 Multidisciplinary Perspectives on Aging
(Sec 001); 3 cr
Instructor: STAFF
This course is designed to: develop an understanding of aging as a normal process; describe the biological, psychological, and sociological consequences of aging; identify major health theories and approaches that different disciplines contribute to the field of gerontology; describe selected successful and maladaptive responses of older adults to the devel-

opment tasks, opportunities and crises that confront them; identify specific interventions and agencies that enhance the life of the older person; discuss the value of a multidisciplinary approach to the study of aging and to the provision of services to an aging clientele; and identify the student's own values and beliefs about the aging process and older adults. The class format includes lectures, guest speakers, discussions, and readings of current material relating to aging and older adults. Specific topics covered include: Sociological; Psychological Aspects of Aging; Theories of Aging; Death and Bereavement; Issues and Problems of Older Adults in America; Human Services and Their Delivery Systems (Health, Nutrition, Long-term Care, Education); Public Policy & Legislation; Environment and Housing; Retirement. The course is targeted to upper division undergraduates and graduate students.
Class time: 80% lecture, 20% discussion

Global Studies

314 Social Science; 612-624-9007

GloS 1015V Honors: Introduction to Global History Since 1950
(Sec 001); prereq—credit will not be granted if credit received for: 1016, Hist 1015H, Hist 1015V; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Farmer, Edward Lewis **!!Morse Alumni Award!!**
This class is an introduction to global history in the last fifty years, aimed at lower division undergraduates. The course will provide a framework for thinking about the recent past, world geography, and some general trends. It is organized comparatively, emphasizing selected "cases" from Asia, Africa, and Latin America. There are three cycles of comparsion. We will attempt to understand the big picture of global history (East/West rivalry in the Cold War; the North/South division in development; and global ecology and economy) but also how changes have affected people's everyday lives.
Class time: 50% lecture, 40% discussion, 10% peer review of writing
Work load: 80 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers, 5 map exercises
Grade: 25% mid-semester exam(s), 20% final exam, 30% written reports/papers, 25% class participation
Exam format: 40% identification; 60% essay

GloS 1015W Introduction to Global History Since 1950
(Sec 001); prereq—credit will not be granted if credit received for: Hist 1015, 1015W; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Farmer, Edward Lewis **!!Morse Alumni Award!!**
This class is an introduction to global history in the last fifty years, aimed at lower division undergraduates. The course will provide a framework for thinking about the recent past, world geography, and some general trends. It is organized comparatively, emphasizing selected "cases" from Asia, Africa, and Latin America. There are three cycles of comparison. We will attempt to understand the big picture of global history (East/West rivalry in the Cold War; the North/South division in development; and global ecology and economy) but also how changes have affected people's everyday lives.
Class time: 40% lecture, 60% discussion, peer review of writing
Work load: 80 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers, 5 map exercises
Grade: 25% mid-semester exam(s), 20% final exam, 30% written reports/papers, 25% class participation
Exam format: 20% identification; 80% essay

GloS 1201 Exploring Global Studies
(Sec 001); S-N only; prereq—dept consent; 1 cr
Instructor: STAFF
Exploring Global Studies is designed to introduce students to themes addressed under the broad rubric of global studies. In this course students explore contemporary golbal issues in an informal setting, interacting with faculty and community practitioners. Students are exposed to university opportunities to further global studies through study abroad, experiential learning, and special language learning programs. Activities include international fim series, discussions with faculty, and exposure to international media resources. This class is tied to the Global Studies House residential experience.
Class time: 60% discussion, 40% presentation and films
Grade: 50% written reports/papers, 50% class participation

GloS 3144 Knowledge, Power, and the Politics of Representation in Global Studies
(Sec 001); prereq—6 cr in social sciences including [Geog 1301 or Hist 1015 or Hist 1019 or Hist 1012 or Hist 1018 or Pol 1025]; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Raheja, Gloria Goodwin
An introduction to studies of the relations between the local and the global as interdisciplinary problems of knowledge. We will look at interactions across ecological and political frontiers, changing power relations, creation of new cultures and identities, issues of gender work and families. We will begin with an examination of "metageographies"- different models of naming and thus understanding the world. Our discussion will help us understand some of the different "ways of knowing" (the kinds of questions, assumptions, and methods) people want to understand and represent these processes. We will also examine debates and critical perspectives on issues of representation.
Class time: 50% lecture, 50% discussion, Online exercises
Work load: 50-100 pages of reading per week, 20 pages of writing per semester, 1-2 exams

GloS 3900 Topics in Global Studies
(Sec 001); max crs 9; 3 repeats allowed; 3 cr
Instructor: Frey, Barbara A
International Human Rights Law: The course is designed to introduce students to issues, procedures and advocacy strategies regarding the promotion and protection of international human rights. The course encourages students to analyze recent case studies of human rights violations in light of evolving laws and enforcement mechanisms.
Work load: 50-60 pages of reading per week, 2 exams, 1 papers, Student performance is evaluated based on class participation, a 10-page advocacy paper regarding th
Grade: 20% mid-semester exam(s), 40% final exam, 20% written reports/papers, 20% class participation
Exam format: short answer

GloS 3993 Directed Study
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
Guided individual reading or study. Open to qualified students for one or more semesters.

GloS 5993 Directed Studies
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
Guided individual reading or study. Open to qualified students for one or more semesters.

GloS 5994 Directed Research
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
Qualified students work on a tutorial basis.

Greek

330 Folwell Hall; 612-625-5353

Grk 1001 Beginning Classical Greek I
(Sec 001); 5 cr
Instructor: STAFF
Introduction to classical Greek.
Class time: 30% lecture, 70% recitation
Work load: written homework, frequest quizzes
Exam format: translation, grammatical analysis

Grk 3113 Attic Authors
(Sec 001); prereq—1002 or 1111 or 3111 or 3 yrs high school Greek or dept consent; 4 cr
Instructor: Sheets, George A
This course is for students who have completed a year of college-level ancient Greek, and are moving from the study of grammar and exercises to the reading of unadapted Greek prose. We will read 4-5 short forensic speeches by the influential "Attic" orator, Lysias. (lysias was not actually himslef an Thenian citizen, but a "metic"—e.e. a resident alien in Athens.) Our chief focus will be on developing reading proficiency in Greek, but some attention will be given to Athenian law and legal procedure.
Class time: 20% lecture, 80% discussion

Work load: 3-4 pages of reading per week
Grade: 20% class participation, 80% , Average of 4-5 tests (including final)
Exam format: Translation; grammatical questions, content IDs

Hebrew

330 Folwell Hall; 612-625-5353

Hebr 1001 Beginning Hebrew I

(Sec 001-003); 5 cr
Instructor: Schneller, Renana Segal
This course leads to the satisfaction of the CLA Language Requirement. Modern Israeli Hebrew seeks to serve several kinds of students. Typically, students in this course present a wide variety of backgrounds and interests, which include Jewish, or Israeli cultural studies, archaeology, linguistics, travel or work in Israel, and biblical studies. This is a course for complete beginners. You will learn basic listening, speaking, reading and writing skills with stress on proficiency in communication. Cultural materials are incorporated. The course serves as a good base for subsequent work in biblical Hebrew. The difference between this course and Hebr 1104, Biblical Hebrew, is that this course has a spoken, conversation component and prepares students to read texts without the diacritic marks. (This reading skill is necessary for those interested in reading Hebrew journal articles and post-biblical Hebrew commentaries.) The pronunciation of Hebrew taught will be the same in both courses. Text: Paradise, J. "Hebrew for Americans".
Class time: 50% lecture, 50% discussion, audio/video tapes, games, activities
Work load: 5-10 pages of reading per week, 1 exams, 1 papers, 1-2 hours homework per day to develop skills in listening, speaking, reading, writing
Grade: 20% mid-semester exam(s), 25% final exam, 20% written reports/ papers, 25% quizzes, 10% class participation

Hebr 3011 Intermediate Hebrew I

(Sec 001); prereq—1002 or qualified fr or instr consent; 5 cr
Instructor: Ron-Yerushalmi, Ronit
This course assumes Hebr 1101-3 or other equivalent language study. It leads to the satisfaction of the CLA Language Requirement in: 1) listening comprehension, 2) speaking, 3) reading, 4) writing. The course materials and activities are designed to help students gain the skills necessary in each of these areas. We recognize that you may well have forgotten some of the skills acquired and the "rust" will have to be removed. There is a rapid review of fundamentals followed by a selection of dialogues designed to serve as a bridge between 1st and 2nd year Hebrew. Simple selections from Modern Israeli poetry and prose, newspaper, and the arts from the transition to written Israeli Hebrew. T.V. news and films are added as your ability increases. Grammatical skills and writing will be honed through short compositions and a textbook manual. Students will also be introduced to primary features of Biblical Hebrew through short narrative selections.
Class time: 50% lecture, 50% discussion
Work load: 5-10 pages of reading per week, 1 exams, 1 papers
Grade: 20% mid-semester exam(s), 25% final exam, 20% written reports/ papers, 25% quizzes, 10% class participation
Exam format: written and oral responses

Hebr 3015 Advanced Modern Hebrew I

(Sec 001); prereq—3012; 3 cr
Instructor: Paradise, Jonathan
This course is designed to prepare the students to read varios kinds of Hebrew texts and to develop higher levels of competence in non-print media. The class is conducted entirely in Hebrew and you will acquire expanded capacity to express yourself when talking about the ideas and issues presented in the various media used in the course. The course emphasizes Modern Israeli Hebrew, but you will be introduced to earlier genres as well. We will spend time further strengthening grammar with considerable emphasis given to widening you vocabulary. Materials used include contemporary short fiction, essays on current issues, articles dealing with a variety of cultural topics, film, Hebrew Internet sites, radio and TV from pre-modern periods. We will sample classical texts from biblical, rabbinic, and medieval sources.
Class time: 10% lecture, 80% discussion, 10% laboratory
Work load: 10 pages of reading per week, 2 exams, weekly quizzes; 10 written or oral submissions
Grade: 20% mid-semester exam(s), 30% final exam, 20% written reports/ papers, 20% quizzes, 10% class participation
Exam format: essay

Hebr 4001 Beginning Hebrew I

(Sec 001-003); prereq—credit will not be granted if credit received for: 1001; grad student or passing score on GPT; 2 cr
Instructor: Schneller, Renana Segal
Modern Israeli Hebrew seeks to serve several kinds of students. Typically, students in this course present a wide variety of backgrounds and interests, which include Jewish, or Israeli cultural studies, archaeology, linguistics, travel or work in Israel, and biblical studies. This is a course for complete beginners. You will learn basic listening, speaking, reading and writing skills with stress on proficiency in communication. Cultural materials are incorporated. The course serves as a good base for subsequent work in biblical Hebrew. The difference between this course and Hebr 1104, Biblical Hebrew, is that this course has a spoken, conversation component and prepares students to read texts without the diacritic marks. (This reading skill is necessary for those interested in reading Hebrew journal articles and post-biblical Hebrew commentaries.) The pronunciation of Hebrew taught will be the same in both courses. Text: Paradise, J. "Hebrew for Americans".

Hindi

453 Folwell Hall; 612-625-6534

Hndi 1101 Beginning Hindi

(Sec 001, 002, 050); 5 cr
Instructor: STAFF
The course is designed for the beginners and introduces students to the four language skills areas: listening, speaking, reading and writing. The text for the course will be "Teach Yourself Hindi", by Snell and Weightman. The class involves a great deal of memorization and intensive study. Considerate emphasis will be given to widening Hindi vocabulary, reinforced from lessons around everyday life situations. Grammar is covered in the regularly assigned take-home exercises and reinforced in class, becoming the basis for student-to-student interaction with a variety of paired and small group interactive communicative activites. Teaching methods will include audio-visual method, dialogue imitation and reading for comprehension. Since the majority of class time is devoted to speaking and listening, it is very important that students attend class regularly.
Class time: 25% lecture, 25% cctv, 25% discussion, 25% laboratory
Work load: 5 pages of reading per week, 10 pages of writing per semester, 2 exams
Grade: 25% mid-semester exam(s), 50% final exam, 10% quizzes, 5% in-class presentations, 10% class participation
Exam format: essay, translations, oral drills
Course URL: webct3.umn.edu

Hndi 3131 Intermediate Hindi

(Sec 001, 050); prereq—1102 or instr consent; 5 cr
Instructor: STAFF
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.
Class time: 25% lecture, 25% cctv, 25% discussion, 25% laboratory
Work load: 5 pages of reading per week, 10 pages of writing per semester, 2 exams
Grade: 25% mid-semester exam(s), 25% final exam, 25% quizzes, 10% in-class presentations, 10% class participation, 5% lab work
Exam format: Essay, translation, oral drill
Course URL: webct3.umn.edu

Hndi 5990 Directed Research

(Sec 001); max crs 5; prereq—instr consent, dept consent, college consent; 3-5 cr
Instructor: STAFF
Guided research in selected areas of Hindi language, linguistics, literature and culture. Introduction to bibliography and research skills.
Class time: 100% one hour consultation/week, reading assignments, library research
Work load: 20 pages of reading per week, 1 papers
Grade: 100% special projects

Hndi 5993 Directed Readings

(Sec 001); max crs 12; 3 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
Guided individual reading of Hindi texts. The focus differs from student to student, from short-story to novel, drama and poetry. Various genres of

Hindi literature are studied from a variety of disciplinary perspectives: linguistic, literary and socio-cultural.
Class time: 100% one hour consultation/week
Work load: 20 pages of reading per week, 1 papers
Grade: 100% special projects

History

614 Social Sciences Building 612-624-2800

Hist 1012V Honors: World History
(Sec 001); prereq—college consent; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructors: Maynes, Mary Jo; Waltner, Ann Beth
This course will examine the history of the world from approximately 1500-1900. We will look at four regions of the world as case studies—China, Central Europe, Mexico and East Africa. We will examine interactions among the four regions, as well as the commonalities they share and the differences in their historical experiences. Emphasis will be placed on reading and interpreting a variety of primary documents, including fiction. There will be three lectures or other large-group activities and two discussion sections per week. The course is designed to meet the needs of history majors and non-majors alike. In addition to introducing students to the basics of how historians write history, we will teach students basic analytic skills. In the discussion section, there will be serious emphasis on the development of writing skills. The course is designed to fulfill lower-division writing-intensive requirements. The class is web-enhanced.
Exam format: combination of essay and short answer
Course URL: www.umn.edu/iol-hist

Hist 1012W World History: The Age of Global Contact
(Sec 001); prereq—=1018; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructors: Maynes, Mary Jo; Waltner, Ann Beth
This course will examine the history of the world from approximately 1500-1900. We will look at four regions of the world as case studies—China, Central Europe, Mexico and East Africa. We will examine interactions among the four regions, as well as the commonalities they share and the differences in their historical experiences. Emphasis will be placed on reading and interpreting a variety of primary documents, including fiction. There will be three lectures or other large-group activities and two discussion sections per week. The course is designed to meet the needs of history majors and non-majors alike. In addition to introducing students to the basics of how historians write history, we will teach students basic analytic skills. In the discussion section, there will be serious emphasis on the development of writing skills. The course is designed to fulfill lower-division writing-intensive requirements. The class is web-enhanced.
Class time: 60% lecture, 40% discussion
Work load: 75 pages of reading per week, 25 pages of writing per semester, 3 exams, 1 5-10 page paper, shorter assignments such as document critiques, a number of less formal writing a
Grade: 15% mid-semester exam(s), 20% final exam, 20% class participation, 30-40% written reports/papers; 5-10% quizzes
Exam format: combination of essay and short answer
Course URL: www.umn.edu/iol-hist

Hist 1015V Introduction to Global History Since 1950
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 1015, Glos 1015, Glos 1015H, honors; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Farmer, Edward Lewis **!!Morse Alumni Award!!**
This class is an introduction to global history in the last fifty years, aimed at lower division undergraduates. The course will provide a framework for thinking about the recent past, world geography, and some general trends. It is organized comparatively, emphasizing selected "cases" from Asia, Africa, and Latin America. There are three cycles of comparison; we will attempt to understand the big picture of global history (East/West rivalry in the Cold War; the North/South division in development; and global ecology and economy) but also how changes have affected people's everyday lives.
Class time: 50% lecture, 40% discussion, 10% peer review writing
Work load: 80 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers, 5 map exercises
Grade: 25% mid-semester exam(s), 20% final exam, 30% written reports/papers, 25% class participation
Exam format: 40% identification; 60% essay

Hist 1015W Introduction to Global History Since 1950
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 1015H, Glos 1015, Glos 1015H; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Farmer, Edward Lewis **!!Morse Alumni Award!!**
This class is an introduction to global history in the last fifty years aimed at lower division undergraduates. The course will provide a framework for thinking about the recent past, world geography, and some general trends. It is organized comparatively, emphasizing selected "cases" from Asia, Africa, and Latin America. There are three cycles of comparison; we will attempt to understand the big picture of global history (East/West rivalry in the Cold War, the North/South division in development, and global ecology and economy) but also how changes have affected people's everyday lives.
Class time: 50% lecture, 40% discussion, 10% peer review of writing
Work load: 80 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers, 5 map exercises
Grade: 25% mid-semester exam(s), 20% final exam, 30% written reports/papers, 25% class participation
Exam format: 40% identification, 60% essay

Hist 1031V Honors: Survey of Western Civilization From its Origins to ca 1500
(Sec 001); meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Karras, Ruth Mazo
This is a course on the history of Western societies from their origins in Egypt and Mesopotamia around 3000 B.C. to their first expansion into North America around A.D. 1500. It is difficult to overstate the significance of this epoch for the world we live in today. Reading, writing, and arithmetic, along with the institution you now attend, the university, are legacies of this era. So too are democracy, common law, and the idea of the nation-state. And so too are patriarchy, slavery, and religious intolerance. Besides introducing you to some of the major issues, events, and ideas in the history of the ancient, medieval, and early modern periods of Western history, this course will also introduce you to the wide range of questions historians ask about the past, and it will give you the chance to learn how to discover the past for yourself. This course is appropriate for majors and non-majors alike. It fulfills the 1000 level course requirement for history majors, as well as several of the CLA Liberal Education requirements: the Diversified Core-Historical Perspective requirement; the Designated Theme requirement for International Perspectives; and the requirements for a Writing Intensive Course. This course will be web enhanced but the URL is not yet known.
Class time: 50% lecture, 50% discussion
Work load: 55 pages of reading per week, 10-13 pages of writing per semester, 2 exams, 1 papers, 2 analyses of primary sources
Grade: 15% mid-semester exam(s), 20% final exam, 40% written reports/papers, 25% class participation
Exam format: Identification and essays
Course URL: cla.umn.edu/courses/hist1031/

Hist 1031W Western Civilization from its Origins to ca 1500
(Sec 001); Credit will not be granted if credit has been received for: HIST 1026; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Karras, Ruth Mazo
This is a course on the history of Western societies from their origins in Egypt and Mesopotamia around 3000 B.C. to their first expansion into North America around A.D. 1500. It is difficult to overstate the significance of this epoch for the world we live in today. Reading, writing, and arithmetic, along with the institution you now attend, the university, are legacies of this era. So too are democracy, common law, and the idea of the nation-state. And so too are patriarchy, slavery, and religious intolerance. Besides introducing you to some of the major issues, events, and ideas in the history of the ancient, medieval, and early modern periods of Western history, this course will also introduce you to the wide range of questions historians ask about the past, and it will give you the chance to learn how to discover the past for yourself. This course is appropriate for majors and non-majors alike. It fulfills the 1000 level course requirement for history majors, as well as several of the CLA Liberal Education requirements: the Diversified Core-Historical Perspective requirement; the Designated Theme requirement for International Perspectives; and the requirements for a Writing Intensive Course. This course will be web enhanced but the URL is not yet known.
Class time: 50% lecture, 50% discussion
Work load: 55 pages of reading per week, 10-13 pages of writing per semester, 2 exams, 1 papers, 2 analyses of primary sources

Grade: 15% mid-semester exam(s), 20% final exam, 40% written reports/papers, 25% class participation
Exam format: Identification and essays
Course URL: cla.umn.edu/courses/hist1031/

Hist 1301V Honors: U.S. History to 1880
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Fischer, Kirsten
This writing-intensive survey course will acquaint undergraduate students with major themes in the history of the United States from the colonial period through the Civil War and Reconstruction. Students will examine and evaluate the dramatic changes and persistent continuities that shaped this period of American history. Drawing upon the methodologies and insights of social, political, and intellectual history, the class lectures and weekly discussion sections will explore a range of topics including colonization and national expansion, religion and reform movements, race and ethnicity, gender roles and labor relations. This class meets the CLE req of Cultural Diversity Theme, the CLE req of Historical Perspective Core, the CLE req of Writing Intensive.
Class time: 50% lecture, 50% discussion
Work load: 40-80 pages of reading per week, 15 pages of writing per semester, 3 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/papers, 30% class participation
Exam format: Short identifications, essay.

Hist 1301W U.S. History to 1880
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Fischer, Kirsten
This writing-intensive survey course will acquaint undergraduate students with major themes in the history of the United States from the colonial period through the Civil War and Reconstruction. Students will examine and evaluate the dramatic changes and persistent continuities that shaped this period of American history. Drawing upon the methodologies and insights of social, political, and intellectual history, the class lectures and weekly discussion sections will explore a range of topics including colonization and national expansion, religion and reform movements, race and ethnicity, gender roles and labor relations. This class meets the CLE req of Cultural Diversity Theme, the CLE req of Historical Perspective Core, the CLE req of Writing Intensive.
Class time: 50% lecture, 50% discussion
Work load: 40-80 pages of reading per week, 15 pages of writing per semester, 3 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/papers, 30% class participation
Exam format: Short identifications, essay

Hist 1904 Freshman Seminar: Women in Modern Japan
(Sec 001); max crs 6; A-F only; meets CLE req of International Perspect Theme; 3 cr
Instructor: Mizuno, Hiromi
This course explores various lives of women in Japan in the twentieth century, using autobiograhies, novels, and films. We focus on heroines such as the Modern Girl, the Good Wife, and the Comfort Woman, who occupy a significant place in modern Japan. The course introduces main issues related to women in modern Japan as well as basic techniques of reading, researching, and writing.
Class time: 10% lecture, 90% discussion
Work load: 30-40 pages of reading per week, 15 pages of writing per semester, 3 papers, a small research project
Grade: 60% written reports/papers, 10% in-class presentations, 30% class participation

Hist 1909W Freshman Seminar: Images of Africa
(Sec 002); max crs 6; A-F only; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Wagner, Michele Diane
Think of the images of Africa that you have seen recently. Mosquito-infested jungle? Lion-infested savanna? Erupting volcanoes? Diamonds and diseases? Minerals and mercenaries? Conflict and starvation? Lavish safari vacations? Where does this kaleidoscope of conflicting images come from? We live in a world of full of images—a world where images can speak more strongly than words. The images that conventionally represent Africa bear messages. We will untangle the images, identify the messages, and trace the history of the messages and the images that convey them. Examining the narratives of travelers to Africa—from slave traders and explorers, to missionaries, journalists and Peace Corps volunteers—and using other sources, such as art, music, photographs and film—we will explore the history and meanings of images of Africa.
Class time: 33% lecture, 33% discussion, 33% activities
Work load: 75 pages of reading per week, 2 exams, 3 papers, possibility of alternative projects

Hist 3051 Ancient Civilization: Near East and Egypt
(Sec 001); 3 cr
Instructor: Von Dassow, Eva
From peasants to pharaohs, potsherds to pyramids, promissory notes to poetry, the societies of the ancient Near East include humble and proud, mundane and transcendent, and everything in between. For they are us, just long ago and far away. What does the phrase "ancient Near East" denote? This oversize umbrella term encompasses the lands of Southwest Asia and Northeast Africa: Mesopotamia, Iran, Anatolia, the Levant, Egypt, and neighboring regions, from the Neolithic (beginning c. 9000 BCE) through the Hellenistic period (roughly the last three centuries BCE). Over these nine millennia, the peoples of the Near East developed agriculture, writing, and monotheism, to name only a few inventions of lasting significance. Their most famous achievements are the monuments of kings like Cheops, Midas, and Nebuchadnezzar, but these should not overshadow their less often celebrated social and cultural accomplishments, such as the articulation of systems of justice and ethics ancestral to our own. This survey course will highlight some of the most important technological developments, communities, and literary works of the ancient Near East, within the framework of a broad historical overview. The course will emphasize the construction of knowledge about past cultures on the basis of the texts and artifacts produced by those cultures.
Class time: 75% lecture, 25% discussion
Work load: 50 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, Short writing assignments and quizzes
Grade: 15% mid-semester exam(s), 25% final exam, 40% written reports/papers, 20% quizzes
Exam format: Essay and short identification/definitions

Hist 3151W British History to the 17th Century
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Altholz, Josef L
The making of the English nation: Anglo-Saxons and Normans; development of English law and Parliament; Reformation and constitutional crisis; early Wales, Scotland and Ireland. Writing-intensive format in double discussion sections. Intended for majors and non-majors, anyone interested in England.
Class time: 50% lecture, 50% discussion.
Work load: 25 pages of reading per week, 45 pages of writing per semester, 2 exams, 14 papers
Grade: 20% mid-semester exam(s), 40% final exam, 30% written reports/papers, 5% quizzes, 5% class participation
Exam format: Essay
Course URL: www.hist.umn.edu/Courses/Hist3151/

Hist 3347 Women in Early and Victorian America: 1600-1890
(Sec 001); Same as: WOST 3407; max crs 5; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Norling, Lisa A
Introduction to the varied experiences of American women 1600-1890. For any student; no background knowledge assumed. Topics include women's involvement in-and the impact on women of-European colonization and the dispossession of native peoples, slavery, revolution and reform, industrialization, westward expansion, and transformations in politics, family life, and sexuality. Course organized primarily as lecture with occasional films, large-group student discussion, in-class exercises. Students may also choose to enhance their experience in the course by registering for an additional small-group discussion section, graded separately, for addl tional credit.
Class time: 85% lecture, 15% discussion
Work load: 80-100 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers
Grade: 20% final exam, 50% written reports/papers, 30% quizzes
Exam format: short identification, essay

Hist 3428 History of Relations Between U.S. and Mexico: 1821 to Present
(Sec 090); Same as: CHIC 3428, LAS 3428; meets CLE req of International Perspect Theme; 3 cr
Instructor: Winkler, Anne
In this class we will consider the relationship between Mexico and the United States from a world history perspective to see what we can learn about global trends and local particularities. The history of U.S./Mexican

relations provides an excellent case study for examining global distribution of economic and political power among so called "first" and "third" world nations, in the 19th and 20th centuries, and exploring how those relations have shifted over time. For over 180 years the relationship between Mexico and the United States has been one of unequal exchange. Although Mexico has struggled with the United States for control of Mexican resources with some important successes, the level of inequality has multiplied from 1820 to 2001. We will explore the historical roots of this system of dependency, examine successful and unsuccessful efforts to change it and try to understand why it has persisted. The study of Mexican /U.S. relations, however, is much more complex than the story of inequalities and dependent development. Contending interests within each nation, including workers, corporations, peasants, farmers, agri-business, indigenous groups, artists and intellectuals, have helped shape the relationship, sometimes forming alliances with peers across the border. We will pay particular attention to these contending interests and their influence on cross-border relations.

Class time: 40% lecture, 40% discussion, 20% Movies, other audio-visuals

Work load: 80 pages of reading per week, 5 pages of writing per semester, 2 exams, 1 papers, Journal writing, presentation

Grade: 15% mid-semester exam(s), 15% final exam, 10% written reports/ papers, 5% quizzes, 10% in-class presentations, 25% class participation, 20% , Journal writing

Exam format: Essays

Hist 3461 Introduction to East Asia I: The Imperial Age

(Sec 001); Same as: EAS 3461; max crs 4; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3-4 cr

Instructor: Wang, Liping

This is a comprehensive introduction to East Asia (China, Japan, Korea, and Vietnam) from prehistoric times to the sixteenth century. It traces the evolution of major political and economic institutions as ways to understand basic structures of political authority and systems of resource distribution in these societies. It outlines major schools of East Asian philosophy and religions, such as Confucianism, Daoism, and Buddhism, and discusses their development and influence in each of the four countries. It analyzes some of the most important features of East Asian society, i.e., family structure and gender relationships in ideology as well as in practice. As part of the overview of East Asian society and culture, the course also introduces main modes of artistic expression through various kinds of visual materials as well as visit to museum. The course stresses the interconnections within East Asia while highlighting the distinctive paths of historical changes in each of the four countries.

Class time: 80% lecture, 20% discussion

Work load: 50 pages of reading per week, 7-10 pages of writing per semester, 2 exams, 1 papers

Hist 3493 Islam: Religion and Culture

(Sec 001); prereq—credit will not be granted if credit received for: RelA 3036, Arab 3036, Hum 3036; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr

Instructor: Farah, Caesar Elie

The evolution of Islam in historical context; institutions that made for diversity and continuity; traditions, law and observances of the faith; sectarian movements; philosophical and theological trends; modern developments; reformist, revolutionary, and militant, Islamic revivalism movements, fundamentalism and militancy. Course limited to sophomores, juniors or seniors. Freshmen wishing to take this class must contact the instructor directly for permission.

Class time: 65% lecture, 10% discussion, 20%

Work load: 25 pages of reading per week, 8 pages of writing per semester, 2 exams, 1 papers

Grade: 25% mid-semester exam(s), 35% final exam, 15% written reports/ papers, 5% in-class presentations, 5% class participation, 15% , attendance

Hist 3618 The Dark Ages Illumined: Medieval Europe to 1050

(Sec 001); prereq—=MeSt 3610; 3 cr

Instructor: Phillips, William D

This is a course in the development of western Europe and its neighbors in the early Middle Ages. Coverage will include the fall of Rome and the persistence of the Byzantine Empire, the expansion of the Islamic world,and Germanic kingdoms in western Europe. Attention to social and economic developments and the cultural heritage of the early Middle Ages.

Class time: 60% lecture, 40% discussion

Work load: 100 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers, Class discussion

Grade: 30% mid-semester exam(s), 40% final exam, 20% written reports/ papers, 10% class participation

Exam format: Essay and identification

Hist 3626 France From the Late 16th Century Through Napoleon: 1594-1815

(Sec 001); 3 cr

Instructor: Phillips, Carla Rahn

Beginning with the re-consolidation of the French monarchy in the late sixteenth century, the course will proceed chronologically to the early nineteenth century, analyzing a series of issues that have resonance in the present as well as in the past: How were government and society organized in the Old Regime? What roles did social structure, economic class, gender, education, and religion play in defining the hierarchy of power in the Old Regime? Why and how did French society spawn a violent revolution at the end of the eighteenth century? How did that revolution affect the structure of government and society? What accounts for the rise of Napoleon Bonaparte to power in revolutionary France? How did he use that power and what were the consequences for the French and other Europeans? By examining French and European history at this crucial juncture, students can gain a much better understanding of human motivation and conflict, problems of internal government and foreign policy, and the extraordinary power of ideas and ideals in the modern world. The course will be web enhanced but the URL is not yet available.

Class time: 90% lecture, 10% discussion

Work load: 75 pages of reading per week

Grade: 20% mid-semester exam(s), 40% final exam, 30% written reports/ papers, 10% class participation, Oral and written

Exam format: essay examinations

Hist 3681 Irish History

(Sec 090); 3 cr

Instructor: Altholz, Josef L

After a brief survey of early and medieval Ireland and the beginning of English influence, the course concentrates on the period of increasing English dominance from 1535. Emphasis is on the period of the Union with Britain, 1800-1922, including the Famine, emigration, and various nationalistic movements. The separate histories of southern and northern Ireland from 1922 to the present are surveyed. This course is intended for all undergraduates, both majors and non-majors. It provides no support for any propaganda.

Class time: 100% lecture

Work load: 40 pages of reading per week, 2 exams

Grade: 33% mid-semester exam(s), 67% final exam

Exam format: Multiple choice

Hist 3721 20th-Century Europe From the Turn of the Century to the End of World War II: 1900-1945

(Sec 001); prereq—=5721; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3 cr

Instructor: Munholland, John Kim !!**CLA Distinguished Teaching Award!!**

This course looks upon the development of European society and politics in an age of violent conflict, marked by two devastating wars and revolutionary upheaval. Emphasis is upon the nature of European political structures and social arrangements on the eve of the first world war and the impact of that war upon European society with emphasis upon the major powers. The second part of the course focuses upon the failure to preserve peace in Europe, the impact of the Russian Revolution, the rise of fascist states and the onset and course of the second world war. Emphasis is upon political developments and inter-state relations. The format is primarily lectures with selected readings on the background to WWI, a general history of the war, readings on the Russian Revolution, the background to WWII and an analysis of the reasons for the victory of the Allies over fascism in WWII. A general text provides historical continuity. While previous knowledge of history is helpful, the course is aimed at both history majors and non-majors. Examinations are essay type with short answer identifications. Two brief (5-7 page) papers are required.

Class time: 80% lecture, 20% discussion

Work load: 100 pages of reading per week, 14 pages of writing per semester, 2 exams, 2 papers

Grade: 20% mid-semester exam(s), 40% final exam, 40% written reports/ papers

Exam format: Exam format is essay with some short-indentifications provided. Review sheets with sample identifica

Hist 3727W History of the Holocaust

(Sec 001); Credit will not be granted if credit has been received for: RELS 3521, RELS 3521W, RELS 3521W, JWST 3521, JWST 3521W, JWST 3521W; meets CLE req of Writing Intensive; 3 cr

Instructor: Feinstein, Stephen

This course will attempt to document and analyze the Holocaust—in particular, the background, development and systematic extermination of European Jews and Roma/Sinti (gypsies) by the Nazis. Not only were Jews

affected by policies of the Third Reich ("Nazi Germany"), but others labeled "undesirable" or "subhuman" were also exterminated in this process. There were also political enemies of the regime. In this course, particular attention will be given to the phenomenon of anti-Semitism, in both its religious and secular forms, to the relationship between mass murder or genocide and the growth of bureaucracy and technology, and to the challenges posed by the Holocaust for religious and humanistic beliefs and values. There are a wide variety of historiographical approaches that have tried to analyze why the Holocaust happened in Germany, the most enlightened and "modern" country in Europe. As a subject of history, however, the facts and analytical skills derived from many disciplines should be able to provide answers that fit into an overall framework of historical knowledge.

Class time: 90% lecture, 10% discussion

Work load: 250 pages of reading per week, 35 pages of writing per semester, 1 exams, 3 papers

Grade: 25% final exam, 70% written reports/papers, 5% class participation

Course URL: webct3.umn.edu

Hist 3729 Nazi Germany and Hitler's Europe

(Sec 001); A-F only; 3 cr

Instructor: Weitz, Eric D

In HIST 3729, students will examine how Adolf Hitler and the Nazi Party established a powerful dictatorship in Germnay and unleashed total war and genocide in Europe. The class will explore how the Nazi regime categorized the entire population along racial criteria, bestowing honor and resources on the elect, discrimination, imprisonment, and, ultimately, death, on those deemed dangerous to the health of the "social body." Particular topics will include Hitler?s biography, the political events leading up to the Nazi seizure of power, Nazi gender and labor policies, the course of total war, and the Holocaust, among others.

Class time: 70% lecture, 30% discussion

Work load: 100 pages of reading per week, 2 exams, 3 papers, papers include two short papers and one longer paper

Grade: 15% mid-semester exam(s), 25% final exam, 50% written reports/papers, 10% class participation

Hist 3809 The Peoples of Revolutionary America

(Sec 001); 3 cr

Instructor: Menard, Russell R

This course surveys the history of that part of British America that became the United States during the Revolutionary era (roughly 1763-1800). It aims to provide a comprehensive narrative of American history during the Revolutionary era from a multicultural perspective. Although most topics are touched on, I pay particular attention to the origins of the independence movement, the conduct of the war for independence, the constitution, and the creation of the national government. Although designed for advanced undergraduates, the course assumes no prior knowledge, and should be accessible to all undergraduates interested in the origins of the United States.

Class time: 95% lecture, 5% discussion

Work load: 70 pages of reading per week, 15 pages of writing per semester, 1 exams, 2 papers

Grade: 33% final exam, 67% written reports/papers

Exam format: essay

Hist 3841 American Business History

(Sec 001); 3 cr

Instructor: Deutsch, Tracy Marie

This course surveys the history of American enterprise from the colonial era to the late twentieth century. Throughout the semester we will examine changes in business practice, as well as the social, political, and economic causes of those changes. Students will be expected to participate in class discussions and class projects, to read primary and secondary historical sources, and to write, and perhaps revise, several essays. Topics covered include pre-industrial businesses, early industrialization, the rise of big business, and evocative biographies of business owners and their employees.

Hist 3871 American Indian History: Pre-Contact to 1830

(Sec 001); Same as: AMIN 3871; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; 4 cr

Instructor: STAFF

This course explores American Indian history from the pre-contact period to the era of Indian removal in the United States. The approach will be partly chronological and partly thematic. Because of the complexity, diversity, and geographic scope of North American Indian societies to illustrate the particular experiences of some groups. Lectures are designed to complement the readings and documentary films. This course stresses the integrity and viability of American Indian societies and dynamic, self-directed culture change while at the same time recognizing the conflict of cultures that occurred with Native American and Euroamerican contact.

Hist 3875W Comparative Race and Ethnicity in US History

(Sec 001); A-F only; prereq—instr consent or dept consent; meets CLE req of Historical Perspective Core; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 4 cr

Instructor: Lee, Erika

This course will examine America through its cultural and racial diversity and changing notions of "American" national identity and citizenship from the late 19th century to the present. We will compare and contrast the historical experiences of American Indians, African Americans, Latinos, whites, and Asian Americans considering how these groups were defined in relation to each other and in relation to the nation. Topics include: Reconstruction, westward and imperial expansion, Native-Anglo conflict, African Americans in the Jim Crow South, the Great Migration, European, Asian, and Mexican immigration, the impact of the great depression and World War for American minorities, the social protest and civil rights movements of the 1960s, "new" immigrants and refugees from Asia, Africa, and Latin America, and race relations in contemporary Minnesota and the United States. We will examine how Americans from diverse backgrounds interacted and came to terms with the country's increasing diversity in the 19th and 20th centuries. We will also study what the consequences of this interaction were for both Americans and the nation as a whole. Some of the central questions we will ask ourselves this semester are: How is the nation defined? Who is an "American"? How did questions of membership and citizenship in America change over time? How were racial and ethnic minorities, women, and immigrants defined at various times in opposition to "Americanness"?

Class time: 60% lecture, 40% discussion

Work load: 150 pages of reading per week, 1 exams, 2 papers

Grade: 25% mid-semester exam(s), 30% final exam, 20% written reports/papers, 25% class participation

Exam format: Essay

Hist 3920 Topics in African History: Zamani: East Africa Past and Present

(Sec 001); max crs 16; 16 repeats allowed; prereq—Jr or sr or instr consent; 3 cr

Instructor: Wagner, Michele Diane

Climbing Mount Kilimanjaro? Safari in Kenya? Beach combing on Zanzibar? Many visitors go to East Africa each year and return home "knowing"about the region. They visit historical sites, read the guidebooks, snap rolls of photos, and suddenly become African "experts." This course explores the "knowledge" that is commonly reproduced about East Africa's past and present. It examines how and when these "facts" originated, why they have been propagated, what they mean: the politics of "knowledge." What do contemporary historians understand about the East African past? How does this understanding of the past shed light on the present?

Class time: 33% lecture, 33% discussion, 33% activities

Work load: 100 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 4 papers, possibility of special projects to replace paper/exam

Exam format: essay

Hist 3951H Junior Honors Seminar

(Sec 001); prereq—History honors candidate; meets HON req of Honors; 4 cr

Instructor: Samaha, Joel B **!!CLA Distinguished Teaching Award!!**

(1) Intended for History honors majors in their junior year, the course is run as a seminar, with emphasis on preparation for writing a junior honors paper, required for graduation with honors in history. Sessions focus on the question, what is "good history"? (2) Students present progress reports regarding selection of topic; finding required primary source available for the topic; main points of topic; 10 minute oral presentation of paper. (3) Submission of 20 page double-spaced paper, both as a Microsoft Word for Windows file on disk and a hard copy.

Class time: 70% discussion, 30% presentation of research topics, sources, and content

Work load: 20 pages of writing per semester, 0 exams, 1 papers, oral presentation of research topic, sources, and content

Grade: 10% in-class presentations, 90% , 20 page junior honors paper

Exam format: no exams

Course URL: www.soc.umn.edu/~samaha/

Hist 3970 Supplemental Discussion in History
(Sec 001-004); max crs 3; 3 repeats allowed; prereq—Concurrent registration; 1 cr
Instructor: STAFF
An extra section with a T.A. may be attached to a concurrent 3xxx course in order to discuss in greater depth the readings for that course. Students who sign up for the discussion section will receive an additional 1 credit for the course. Students will be evaluated based upon the level of their attendance at and participation in a weekly hour-long discussion section. There will be no additional readings, but at the discretion of professor and/or T.A., additional short writing assignments may be required.

Hist 3980W Supplemental Writing in History
(Sec 001); max crs 4; 4 repeats allowed; A-F only; prereq—instr consent; must take a 3-cr 3xxx or 5xxx course taken concurrently; meets CLE req of Writing Intensive; 1 cr
Instructor: STAFF
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 5631 Proseminar: Comparative Early Modern History
(Sec 001); A-F only; prereq—Hist grad or instr consent; 3 cr
Instructor: Phillips, Carla Rahn
Early modern history, as defined here, concerns developments in the four centuries from about 1350 to about 1750. It is not the history of a particular area, culture, or state, but rather deals with patterns and interactions that spanned the globe. The beginning of hte period might be thought of European terms (the Black Death, or the early Renaissance), or in Asian terms (the passing of the Mongol world empire). At some point around 1500, following the European voyages of discovery, an era of global history began in which maritime exchange gradually brought all peoples into contact with the great interconnected Eurasian and African land masses. The end of the period is signalled by the beginnings of industrialization in Westen Europe, which signalled a new era in history as a whole. The goal of this course is to provide students with a conceptual framework for thinking about early modern history. Students should gain: (1) familarity with some of hte leading authors in the field; (2) a sense of important issues and debates; (3) a broad overview of the chronology of the early modern history; (4) a sense of the unique character of the modern system of the global trade; and (5) ideas for further study and research. The course is designed for graduate students and advanced jundergraduates in history and related fields.
Class time: 100% discussion
Work load: 175-200 pages of reading per week, 15-20 pages of writing per semester, 1 papers
Grade: 50% written reports/papers, 30% in-class presentations, 20% class participation

Hist 5777 Proseminar in Habsburg Central Europe
(Sec 090); prereq—instr consent; 3 cr
Instructor: Cohen, Gary B.
This proseminar will offer intensive readings in the historical literature on Central Europe under Habsburg rule from the reforms of Maria Theresa to the imperial collapse in 1918. The themes to be highlighted include: continuity and change in society; processes of economic and political modernization; the rise of national consciousness, national movements and anti-Semitism during the middle and late nineteenth century; the rising social and political conflicts during the era of imperialism and emerging mass politics after 1880; the beginnings of modernist culture around 1900; and Central Europe on the eve of World War I. The class will be conducted in a seminar format with each class meeting devoted to a discussion of the historical and social science literature on a major problem or theme, led by one or several students designated for that week. The written work for the course will include two short papers (6-8 pages each, typed, double-spaced) due during the course of the semester, each focusing on the class reading assignment for a particular week, and a longer historiographical paper or review essay (approx. 15 to 20 pages of text, typed, double-spaced, plus bibliography), on a topic of the student's choice due during finals week.
Class time: 100% discussion
Work load: 240 pages of reading per week, 35 pages of writing per semester, 3 papers
Grade: 80% written reports/papers, 20% class participation
Exam format: No exams

Hist 5964 Comparative Economic History
(Sec 001); prereq—instr consent; 3 cr
Instructors: Good, David F; Isett, Christopher Mills
Overview. As we move into the new millennium, globalization, the relative decline of western hegemony, and the reentry of Asia on the world stage dominate the agendas of several academic disciplines. Historians in particular are in a position to illuminate the nature and causes of the current disjuncture in world history by placing it in longer term perspective. In this course, we focus on a central element of the larger transformation that is now underway: the changing character of global inequalities in wealth and power. We seek answers to several key questions: Why have levels and rates of economic development varied over time and place? When and why did the current geographical pattern of inequalities arise? Why are the geographical differences in wealth and power so much greater now than in earlier time periods? Structure of the Course: The course is organized along chronological, geographical, and thematic lines and is divided into three parts: Part I: Global Inequalities over the Very Long Run (three weeks); Part II: Asian and European Trajectories to the Industrial Revolution (four weeks); Part III: Global Inequalities since the Industrial Revolution (three weeks) Target Audience: Graduate students; undergraduate honors students only. Obtain Magic Numbers: 610 Social Sciences.

History of Medicine

510 Diehl Hall (Box 506 Mayo); 612-624-4416

HMed 3001W Health Care in History I
(Sec 001); meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Eyler, John M
This course is the first semester of a two-semester introduction to the history of disease and to the social and intellectual history of modern European and American medicine. It is designed to form a part of a general liberal arts education, and it presupposes no special technical knowledge of the biomedical sciences. The two semesters form a chronological sequence, but either may be taken separately. The focus of HMed 3001 is from classical antiquity through the first third of the mid-nineteenth century. We will explore how some of the basic concepts of Western medicine came into being and investigate the practice of physicians, surgeons, midwives, and some of the alternative health care providers. We will also study the role of institutions and of social and economic change in the development of health care in Europe and America. During this semester the histories of bubonic plague and of smallpox provide opportunities to consider the changing patterns of diseases and death and the human response to major epidemics.
Class time: 60% lecture, 40% discussion
Work load: 100 pages of reading per week, 15 pages of writing per semester, 2 exams, 3 papers, Short papers and requied revision
Grade: 15% mid-semester exam(s), 25% final exam, 45% written reports/papers, 15% class participation
Exam format: Essay

HMed 5200 Early History of Medicine to 1700
(Sec 001); A-F only; 3 cr
Instructor: Eyler, John M
This is the first semester of a two-semester introduction to the history of disease and health care in the western world. It is intended primarily for graduate students. We meet concurrently with Hmed 3001 twice a week for lectures and once per week with the instructor for a seminar. This first semester of the sequence we employ the methods of intellectual, social, and cultural history to explore the evolution of basic concepts of disease and body functions and of health care practices in Europe and America from classical antiquity until around 1800.
Class time: 60% lecture, 40% discussion
Work load: 150 pages of reading per week, 35 pages of writing per semester, 1 exams, 3 papers
Grade: 15% final exam, 45% written reports/papers, 20% special projects, 20% class participation
Exam format: Essay

History of Science and Technology

381 Physics; 612-624-7069

HSci 1714 Technology and Western Civilization: To the Industrial Revolution

(Sec 001); Same as: HSCI 3714; prereq—3714; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 4 cr

Instructor: Alexander, Jennifer Karns

Technology is an enormous force in our society, and this course asks how it became so important. We explore the historical background, development, and character of the most powerful technological systems the world has known, from pre-historic stone tool societies, through Egypt and the pyramids, ancient Greece and Rome, the explosion of Islam, and the dynamic and often violent technologies of medieval Europe. In this class, you will get to know your fellow students and find out what their interests are, and you will discuss historical problems with them in small groups and in discussion sections. You will listen to lectures and see films about particular technologies, and you will learn to ask key questions about each technology: who was involved? what were the circumstances? The course is designed for undergraduates from a variety of backgrounds, including engineering, literature, history, business, and the sciences.

Class time: 55% lecture, 35% discussion, 10% films

Work load: 10-20 pages of reading per week, 5 pages of writing per semester, 3 exams, 1 papers

Grade: 30% mid-semester exam(s), 30% final exam, 15% written reports/papers, 25% , (15% Discussion Sections; 10% Small Groups;) N.B. 2 Midsemester Exams

Exam format: Combination of short answer and essay.

Course URL: www.me.umn.edu/courses/hsci1714/

HSci 1814 Introduction to History of Science: Ancient Science to the Scientific Revolution

(Sec 001); Same as: HSCI 3814; prereq—=3814; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 4 cr

Instructor: Shapiro, Alan E

This first semester of a two-semester course intended for undergraduates is devoted to science from antiquity through the Scientific Revolution. The development of the various sciences (for example, physics, astronomy, and biology) and the changing nature of science itself are placed in their cultural context, especially in relation to philosophy, religion, and social structures. The first part of the course covers Babylonian, Egyptian, and Greek science with a brief transition on the middle ages, and the second part the development of modern science in the Scientific Revolution, 1500-1725. Euclid, Aristotle, Galileo, and Newton are among the scientists studied. In addition to the mid-term and final exams, students are assigned two take-home essay questions (3 to 5 pages long) ten days before they are due. These essays serve to synthesize the material covered in class and readings and do not require additional research or reading. Students are also required either to write a paper (7 to 10 pages) on a topic of their choice or to carry out a project such as repeating an old experiment or making a scientific instrument.

Class time: 75% lecture, 25% discussion

Work load: 40 pages of reading per week, 12 pages of writing per semester, 2 exams, 3 papers, 12 pages of writing includes papers, not exams

Grade: 15% mid-semester exam(s), 30% final exam, 45% written reports/papers, 10% class participation

Exam format: Essay, short prose answer

HSci 3242 The Darwinian Revolution

(Sec 001); Same as: HSCI 5242; 3 cr

Instructor: Bellon, Richard Donald

The botanist H.C. Watson, flush with excitement after first reading of the Origin of Species in 1859, proclaimed Charles Darwin "the greatest Revolutionist in natural history of this century, if not of all centuries." In this course, we will explore the nature and the consequence of the Darwinian Revolution, focusing not just on Darwin's own work but the trajectory of evolutionary thought beginning with Lamarck's "Philosophie zoologique" (1809) to the Modern Synthesis of genetics and evolutionary biology in the 1930 and '40s. Darwin was not only an evolutionary theorist; he also produced groundbreaking work on specialized subjects such as barnacle classification and the mechanisms of orchid fertilization. We will examine how the content and practice of such technical biology changed (or didn't change) generally as a result of the Darwinian Revolution. Evolution's influence extended far beyond science, of course, and we will also see how evolution intersected with conceptions of philosophy, politics, literature, race, gender, etc. The course is designed for undergraduates from a variety of backgrounds, including biology, history, literature, geology and other sciences.

Class time: 67% lecture, 33% discussion

Work load: 50-100 pages of reading per week, 15 pages of writing per semester, 3 exams, 2 papers

Grade: 40% mid-semester exam(s), 50% written reports/papers, 10% class participation

Exam format: Combination of short answer and essay

HSci 3333V Honors Course: Issues in Twentieth Century American Science

(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Historical Perspective Core; meets CLE req of Writing Intensive; meets HON req of Honors; 3 cr

Instructor: Kohlstedt, Sally Gregory

Science and technology were defining elements in twentieth-century American life in the United States and indeed in much of the world. Using case studies involving such topics as eugenics as well as comparative studies of technology in the Soviet Union and the United States in the 1930s, and an analysis of post-war attitudes toward atomic and other sciences, we will explore some of the ways in which science has influenced American culture and the reciprocal kinds of expectations that have pushed forward and also reacted against some aspects of science and technology. Most units of the course will have on-line assignments, short readings, film and slide presentations and one-page response papers. These will be a mid-term and final examination. The class members will meet together for lectures, films, and similar activities, with one smaller discussion group meeting at the end of each week. Evaluation will take into consideration class and group participation, written assignments, and the examinations.

HSci 3714 Technology and Western Civilization: To the Industrial Revolution

(Sec 001); Same as: HSCI 1714; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 4 cr

Instructor: Alexander, Jennifer Karns

Technology is an enormous force in our society, and this course asks how it became so important. We explore the historical background, development, and character of the most powerful technological systems the world has known, from pre-historic stone tool societies, through Egypt and the pyramids, ancient Greece and Rome, the explosion of Islam, and the dynamic and often violent technologies of medieval Europe. In this class, you will get to know your fellow students and find out what their interests are, and you will discuss historical problems with them in small groups and in discussion sections. You will listen to lectures and see films about particular technologies, and you will learn to ask key questions about each technology: who was involved? what were the circumstances? The course is designed for undergraduates from a variety of backgrounds, including engineering, literature, history, business, and the sciences.

Class time: 55% lecture, 35% discussion, 10% films

Work load: 10-30 pages of reading per week, 15 pages of writing per semester, 3 exams, 1 papers

Grade: 30% mid-semester exam(s), 30% final exam, 20% written reports/papers, 20% , (10% Discussion Sections; 10% Small Groups;) N.B. 2 Midsemester Exams

Exam format: Combination of short answer and essay.

Course URL: www.me.umn.edu/courses/hsci1714/

HSci 3814 Introduction to History of Science: Ancient Science to the Scientific Revolution

(Sec 001); Same as: HSCI 1814; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 4 cr

Instructor: Shapiro, Alan E

This first semester of a two-semester course intended for undergraduates is devoted to science from antiquity through the Scientific Revolution. The development of the various sciences (for example, physics, astronomy, and biology) and the changing nature of science itself are placed in their cultural context, especially in relation to philosophy, religion, and social structures. The first part of the course covers Babylonian, Egyptian, and Greek science with a brief transition on the middle ages, and the second part the development of modern science in the Scientific Revolution, 1500-1725. Euclid, Aristotle, Galileo, and Newton are among the scientists studied. In addition to the mid-term and final exams, students are assigned two take-home essay questions (3 to 5 pages long) ten days before they are due. These essays serve to synthesize the material covered in class and readings and do not require additional research or reading. Students are also required either to write a paper (7 to 10 pages) on a topic of their choice or to carry out a project such as repeating an old experiment or making a scientific instrument.

Class time: 75% lecture, 25% discussion

Work load: 45-50 pages of reading per week, 18 pages of writing per semester, 2 exams, 3 papers, 18 pages includes papers, not exams

Grade: 15% mid-semester exam(s), 30% final exam, 45% written reports/ papers, 10% class participation
Exam format: Essay, short prose answer

HSci 4121 History of 20th-Century Physics
(Sec 001); Same as: PHYS 4121; prereq—credit will not be granted if credit received for: HSci 4121; general physics or instr consent; 3 cr
Instructor: Janssen, Michael HP
This course is an introduction to the work of historians and philosophers of science trying to trace the conceptual development of 20th-century physics. Our main focus will be on the development of relativity theory (both special and general) and quantum theory in the first quarter of the century. Special attention will be paid to the contributions of Albert Einstein. We will also study some episodes in the further developments of these fields: in nuclear physics in the 1930s, in particle physics in the 1970s, in both cases with special attention to the interplay between theory and experiment. Finally, we will look at the development of big bang cosmology and its marriage with particle physics in inflationary cosmology. Readings are taken from a variety of sources. General surveys are used to get us started on a particular topic. That will prepare us for more specialized literature in history and philosophy of science. We will also read (passages from) some of the seminal texts written by the physicists we will study, both to get some of the flavor of their work and to evaluate interpretations and reconstructions of these texts offered in the historical and philosophical literature. The course is aimed at upper-level undergraduate and graduate students in physics, history of science, and philosophy of science, but should be of interest to other students with a strong interest in 20th-century physics as well.
Class time: 90% lecture, 10% discussion
Work load: 100 pages of reading per week, 30 pages of writing per semester, 3 exams, 1 papers, paper for graduate students only
Grade: 10% class participation, 90% , take-home essays/paper (grad students)
Exam format: Take-home essay

HSci 4125 The Nuclear Age
(Sec 001); 3 cr
Instructor: Seidel, Bob
The nuclear age encompasses over a century of scientific and technological development. In this course, we will traverse that century from x-rays to Yucca Mountain, exploring the development of the theories of nuclear physics by Ernest Rutherford, Niels Bohr, Werner Heisenberg, Robert Oppenheimer and Hans Bethe, examining the applications of those theories in nuclear technologies ranging from bombs to reactors to tracers for medical research, and consider the political, economic, social, intellectual and military responses to nuclear science and technology.
Class time: 66% lecture, 33% discussion
Work load: 75 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/ papers, 25% in-class presentations
Exam format: Essay

HSci 5242 The Darwinian Revolution
(Sec 001); Same as: HSCI 3242; prereq—=3242; 3 cr
Instructor: Bellon, Richard Donald
The botanist H.C. Watson, flush with excitement after first reading of the Origin of Species in 1859, proclaimed Charles Darwin "the greatest Revolutionist in natural history of this century, if not of all centuries." In this course, we will explore the nature and the consequence of the Darwinian Revolution, focusing not just on Darwin's own work but the trajectory of evolutionary thought beginning with Lamarck's "Philosophie zoologique" (1809) to the Modern Synthesis of genetics and evolutionary biology in the 1930 and '40s. Darwin was not only an evolutionary theorist; he also produced groundbreaking work on specialized subjects such as barnacle classification and the mechanisms of orchid fertilization. We will examine how the content and practice of such technical biology changed (or didn't change) generally as a result of the Darwinian Revolution. Evolution's influence extended far beyond science, of course, and we will also see how evolution intersected with conceptions of philosophy, politics, literature, race, gender, etc. The course is designed for undergraduates from a variety of backgrounds, including biology, history, literature, geology and other sciences.

HSci 5993 Directed Studies
(Sec 001); max crs 15; prereq—instr consent; 1-15 cr
Instructor: STAFF
Guided individual reading or study.

Hmong
453 Folwell Hall, 612-625-6534

Hmng 1015 Accelerated Beginning Hmong
(Sec 050); prereq—Ability in basic spoken Hmong; 5 cr
Instructor: STAFF
This course is designed for students who have ability in basic spoken Hmong and want to increase their oral skills and develop reading and writing skills. The course will include a review of proper grammar and usage, practice in reading and writing, as well as an introduction to the Hmong literature and other formal writing. The course will also include topics on Hmong culture.

Honors Colloquia
115 Johnston Hall, 612-624-5522

HCol 1010H Honors Colloquium: Psychology of Religion
(Sec 001); max crs 12; 4 repeats allowed; prereq—[Fr or soph], honors; meets HON req of Honors; 2 cr
Instructor: Dik, Bryan J
This course is a survey of the research on origins, development, and consequences of religion from a psychological perspective. Topics include conversion, intrinsic and extrinsic religious behavior, religious attitudes and social behavior, religion and mental health, religious development, and prayer and other forms of religious experience. Methodological issues will also be considered. The course format will consist of lecture and discussion, and may include multimedia presentations and guest speakers. The course is designed to enhance critical thinking skills and to demonstrate how the methods of science can be applied to the study of religious phenomena.

HCol 1030H Honors Colloquium: Money: Its Creation, Circulation, and Consequences
(Sec 001); max crs 12; 4 repeats allowed; prereq—[Fr or soph], honors; meets HON req of Honors; 2 cr
Instructor: Larson, Erik Walter
This colloquium will allow students the opportunity to take a step back from our mundane experiences with money and consider how money is a social product and a social relation. Although many think of money as a subject of only economics, we will also consider insights from sociology, history, art, political science, anthropology, law, geography, literature, and philosophy. Our meeting sessions will consider a number of issues, including the connection between the creation of national money and national government; the circulation of money in a global economy; and the social impacts of money on the everyday lives of people. Although we will devote most of our attention to more familiar money (governmental currencies, such as the U.S. Dollar), we will also consider earlier forms of money (cowry shell money) and alternative forms of money, from emerging electronic non-national money to sub- national, local money.

HCol 1040H Honors Colloquium: Birth & Death of Languages: To Babel & Back Again
(Sec 001); max crs 12; 4 repeats allowed; prereq—Fr or soph, honors div enroll; meets HON req of Honors; 2 cr
Instructor: Olsen, Caroledith
This colloquium will examine what we know about the diversity of language—how did this Babel arise? Is it 'evolutionary' in any way, or is it an artifact of social and political history? Is it a good thing? From there, we will consider the world situation in our own time. A vast number of languages are considered endangered; we will attempt to evaluate the situation from an interdisciplinary perspective. Should we, as world citizens, be concerned about language extinction? If so, what, if anything, can be done about it? Are there 'new' languages being born today, and should they be nurtured? Is 'World English' likely to become a reality, and would that be a positive development in human history? Students will explore a language or language situation of particular interest to them, in an effort to test our colloquium's hypotheses about language diversity.
Class time: 50% lecture, 50% discussion
Work load: 15 pages of reading per week, 0 exams, 1 papers
Grade: 70% special projects, 30% class participation
Exam format: no exams

HCol 1050H Honors Colloquium: Mapping the Body & Reflecting the Nation: 90's Films
(Sec 001); max crs 12; 4 repeats allowed; prereq—Fr or soph, honors div enroll; meets HON req of Honors; 2-3 cr
Instructor: Sulit, Marie-Therese Cecilia
"Mapping the Body, Reflecting the Nation: A Look at Some 90s Films to the Present" From Twin Peaks to Gladiator . . . This course tracks images of the body and the way in which these images reflect national attitudes about cultural diversity: from race and class to sexuality and spirituality. This course combines mini-lectures to introduce theoretical concepts for reading these films; group work to facilitate concrete applications of these concepts onto these films; large group discussion to work through some exciting ideas; and student presentations to prompt stimulating small group work and large group discussions. A research component requires students to look for primary source materials (e.g. film reviews, press releases, magazine articles with background information on the films, actors, directors etc. etc.) and write short response papers. Other short writing assignments act as prompts for discussion. Viewing the films and preparing short course packet readings along with study questions comprise weekly homework assignments. The research component, five short response papers, one collaborative student presentation, one collaborative student facilitation of one class session, one reflection piece along with regular attendance and rigorous class participation dictate overall student grades for the course.

Honors Seminar

115 Johnston Hall; 612-624-5522

HSem 3010H Honors Seminar: A Framework for Understanding Diversity
(Sec 001); max crs 12; 4 repeats allowed; prereq—[Jr or sr], honors; meets HON req of Honors; 3 cr
Instructors: Sullivan, Maura C; Williams, Oliver Joseph; Davila-Williams, Sonia
This course is designed for students to begin exploring the roots of oppression and to develop an understanding of "ism". It will use a multicultural framework that recognizes the concept of multiple identities and the complex interaction of racism with the systematic dynamics of oppression based on other identities such as gender, ethnicity, class, sexual orientation, ability and religion. Through this class the students will link how common to an understanding of the dynamics of oppression in the United States. The students will also look at the history of intolerance in the USA and how this relates to "other making" in our political, economical, and social interaction with other countries. This class will be oriented toward participation and will require active engagement in the topics and discussions. Two assignments will be required, an individual paper and a group paper.
Grade: 100% written reports/papers

HSem 3020H Honors Seminar: Teaching For and About Social Justice
(Sec 001); max crs 12; 4 repeats allowed; prereq—[Jr or sr], honors; meets HON req of Honors; 3 cr
Instructor: Albrecht, Lisa D **!!Morse Alumni Award; Outstanding Service Award!!**
This seminar is designed for students who are interested in teaching in the future. Whether you are interested in K-12, community college, university or community education, this course will help you learn how to incorporate social justice issues in teaching. The seminar will be theoretical and practical; students will study theorists such as Paulo Freire, bell hooks, Ira Shor and James Banks, and also have the opportunities to co-lead seminars and practice the various pedagogies we study. Students will design projects in small groups and write one longer paper about future applications of the course materials.

HSem 3030H Honors Seminar: Health and Society
(Sec 001); max crs 12; 4 repeats allowed; prereq—[Jr or sr], honors; 3 cr
Instructor: Becker, Mark P
Public health is front and center on the world's agenda, propelled there by some of the most important issues and events of our time. What is the impact of war, culture, business, economics, geography, and politics on human health, and what is the potential for improvement? This seminar explores the global impact on human health of myriad social, cultural, political and economic forces. We examine factors that influence the worldwide distribution and burden of disease. We also examine how nations and societies come together in organized, systemic responses to evaluate, protect and to promote human health. The seminar uses a blend of historical examples and contemporary issues to frame discussions and writing projects. This course should interest students majoring in a social or natural science, or who are considering a health care career, or who read the New York Times, or who are even the least bit curious about understanding and improving the world around them.
Grade: 50% written reports/papers, 25% in-class presentations, 25% class participation

HSem 3050H Honors Seminar: Knowledge
(Sec 001); max crs 12; 4 repeats allowed; prereq—[Jr or sr], honors; meets HON req of Honors; 3 cr
Instructor: Savelsberg, Joachim J
Knowledge will be explored from diverse perspectives, exploring (1) the relationship between knowledge and related terms such as ideology, stereotype, prejudice, belief, and truth, (2) different ways of thinking about knowledge with a focus on comparisons between groups, categories (e.g., gender, race, class, generation), institutions (family, politics, law, science), and societies across time and space, (3) the relationship between power and knowledge and the role of ritual for knowledge, and (4) the genealogy of theories of knowledge. In addition to a core of common readings, each student will adopt a specific area of knowledge or topic (e.g., terrorism, war, race, women's roles, technology, crime, law, welfare, family, corporation, democracy) and, through different exercises, examine the form and content knowledge about this issue takes in different social contexts. We will also do writing exercises to explore students' own ideas about specific issues and orally examine in-seminar differences by gender, class, nationality, or major field of study. Similar strategies worked very well in an Honors Seminar I taught a few years ago.
Work load: 20-30 pages of reading per week, 10-12 pages of writing per semester, 4 exams, 1 papers, Reading of one article (20-30 pages) per session; four quizzes on readings; one seminar paper on kno
Grade: 30% written reports/papers, 40% quizzes, 30% class participation, 10% per quiz; 30% for paper (including paper presentation); 30% for participation in group activitie

HSem 3060H Honors Seminar: Science & Enlightenment, 1600-1789
(Sec 001); max crs 3; A-F only; prereq—[Jr or sr], honors; meets HON req of Honors; 3 cr
Instructor: Shank, John B
Between 1650-1800 "Science" as we now know it, was born along with a host of other concepts—the mechanical world-view, civil society, expertise, objectivity, publicity—crucial to its existence. The term "Enlightenment" refers to these changes and this course will explore its history by studying the world-changing significance of the Science/Enlightenment relationship. We will begin by looking at the so-called "Scientific Revolution" of the seventeenth century. What was new about the "new science"? How did its birth participate within other social, cultural, and political changes of the time? The second half of the course will examine the category of Enlightenment itself as it arose in the eighteenth century. Here the emergence of new social and cultural roles for science and new institutions for its practice will be emphasized. Students will study primary source texts from the period and write critical essays.
Work load: 30 pages of reading per week, 3 papers
Grade: 60% written reports/papers, 40% class participation

HSem 3070H Honors Seminar: 7 Nobel Prize Winning Writers
(Sec 001); max crs 3; A-F only; prereq—[Jr or sr], honors; meets HON req of Honors; 3 cr
Instructor: Yates, Gail M
The writers whose texts, Nobel Prize acceptance speeches, lives and cultures to be covered, listed with nationality, date of Nobel Prize, text title, and genre in parentheses, are William Faulkner (American, 1949, "The Sound and the Fury", fiction), Seamus Heaney (Irish, 1995, "Selected Poems", poetry), Naguib Mahfouz (Egyptian, 1988, "Children of Gebelawi", fiction), Derek Walcott (West Indian, 1992, "Dream of Monkey Mountain", playwright), Toni Morrison (American, 1993, "Song of Solomon", fiction), Wislawa Szymborska (Polish, 1996, "Poems New and Collected", poetry), and Nadine Gordimer (South African, 1991, "July's People", fiction).

HSem 3080H Honors Seminar: River & Its Community: Explorations Upper Mississippi
(Sec 001); max crs 3; A-F only; prereq—[Jr or sr], honors; meets HON req of Honors; 3 cr
Instructor: Waltner, Ann Beth
The Mississippi River has shaped the Twin Cities, and the Twin Cities have had a key impact on the river. This is a civic engagement course that will look at the dynamic interaction between the river and its communities. This course will examine the upper Mississippi river and all of the communities that surround it, from multi-disciplinary perspectives. Students will read a variety of works that will explore the geography, history and literature of

the upper Mississippi. A key component of the course will be a volunteer commitment with a local organization that is centrally concerned with the environment.
Work load: 100 pages of reading per week, 3 papers, Plus 2-3 hours volunteer time per week

Horticultural Science

305 Alderman Hall: 612-624-5300

Hort 1001 Plant Propagation

(Sec 001, 006); meets CLE req of Biological Sciences/Lab Core; 4 cr
Instructor: Hoover, Emily Esther !!COAFES Distinguished Teaching Award; Morse Alumni Award!!
The overall objective of Plant Propagation is to teach the principles and practice of asexual and sexual propagation of plants. In the process of learning about how plants are propagated, students will learn the basic biological systems as they relate to plant propagation. A second objective is to teach the scientific method beginning with the hypothesis, conducting experiments, taking and interpreting data, and sharing the results in report form. During the course students get to propagate hundreds of plants, using techniques ranging from planting seeds through taking cuttings, grafting, and layering. Most of the plants students propagate they get to take home to wow their friends and relatives.
Class time: 40% lecture, 10% discussion, 50% laboratory
Work load: 20 pages of reading per week, 30 pages of writing per semester, 4 exams, 0 papers, 12 lab reports
Grade: 30% mid-semester exam(s), 15% final exam, 55% lab work, lab work with written lab reports
Exam format: short answer

Hort 1002 Home Horticulture

(Sec 001); prereq—Non-horticulture majors; 3 cr
Instructor: Moe, Peter Christian
Fundamental concepts of plant identification, growth, and culture with practical applications to home landscape, floral design, house plants, fruit, flower, and vegetable gardening. For non-horticulture majors.
Class time: 50% lecture, 10% discussion, 40% laboratory
Work load: 20-30 pages of reading per week, 4 pages of writing per semester, 2 exams, 1 papers, home landscape plan, educational exhibits
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/papers, 30% special projects, 5% quizzes, 5% lab work
Exam format: true/false, multiple choice, fill in the blank, and short answer

Hort 1012 Woody Landscape Plants

(Sec 001); 4 cr
Instructor: Zins, Michael Edward
This course is designed to have students learn about the identification, taxonomy, ecology, and landscape use of trees, shrubs, vines, groundcovers, and evergreens that can be grown in this area. Approximately 240 plants will be studied by identifying them through various characteristics in the dormant season as well as when they are actively growing. Lectures will focus on the plants in their environment, landscape use and needs. The laboratories will concentrate on identification and proper nomenclature using Michael Dirr's "Manual of Woody Landscape Plants."This course is designed for beginning students as well as advanced students in other areas who haven't had woody landscape plants.
Class time: 33% lecture, 67% laboratory
Work load: 30 pages of reading per week, 3-10 pages of writing per semester, 10 exams, 1 papers
Grade: 20% mid-semester exam(s), 25% final exam, 10% written reports/papers, 45% quizzes
Exam format: Multiple choice

Hort 1013 Floral Design

(Sec 001); max crs 3; 2 cr
Instructor: STAFF
Floral design for use in commercial flower shops and home, including principles and elements of design, wedding arrangements, wiring (corsages and boutonnieres), and the decorative use of dried materials. The course is designed for undergraduates (non-majors and majors). Students will take home their designs to enjoy and evaluate.
Class time: 30% lecture, 10% discussion, 60% laboratory
Work load: 20 pages of reading per week, 30 pages of writing per semester, 3 exams
Grade: 20% mid-semester exam(s), 20% final exam, 10% written reports/papers, 5% quizzes, 45% lab work
Course URL: www.webct.umn.edu

Hort 3090 Horticultural Practicum

(Sec 001); max crs 12; 6 repeats allowed; prereq—Jr or sr Hort major, instr consent; 2-4 cr
Instructor: STAFF
Approved field, lab or greenhouse experiences in application of horticultural information and practices.

Hort 4021 Landscape Design, Implementation, and Management I

(Sec 001, 003); prereq—1001, 1011, 1012; 4 cr
Instructor: Pedersen, Bradley Wallace !!COAFES Distinguished Teaching Award, COAFES!!
This course is designed for environmental horticulture majors with specialization in turfgrass, nursery or landscape as well as those students enrolled in individualized programs and University College. Students enrolled in landscape architecture, urban and community forestry, and environmental studies will find it an excellent elective. Course content is based on a philosophy of sustainable landscape theory and practice. This approach stresses sustainability as it relates to all phases of landscape development which includes design, implementation, and management. Students will participate in a lecture format that also includes discussion, presentation, and case study. Laboratories will utilize the Department of Horticultural Science Display and Trail Garden and Landscape Design Studio, the St. Paul and Minneapolis campus grounds, as well as commercial and residential sites. Students will be directly involved in the design, implementation, and management of actual landscapes.
Class time: 40% lecture, 20% discussion, 40% laboratory
Work load: 20 pages of reading per week, 12 pages of writing per semester, 1 exams, 7 design problems
Grade: 10% mid-semester exam(s), 10% written reports/papers, 20% lab work, 60% , design problems
Exam format: multiple choice and essay
Course URL: www.sustland.umn.edu

Hort 4041W Nursery Production and Management I

(Sec 001); A-F only; prereq—[1001, 1012] or instr consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Gillman, Jeffrey Hays
This course is intended for upper level students interested in pursuing a career in nursery management. Emphasis is placed on the ability of students to think through practical nursery problems. Lecture topics include propagation, culture, and growing methods used to produce nursery crops. This course incorporates practical lab work in a nursery setting as well as discussions of modern nursery problems and practices. Field trips are required.
Class time: 50% lecture, 25% discussion, 25% laboratory
Work load: 25 pages of reading per week, 25 pages of writing per semester, 2 exams, 4 papers, one discussion and one lab per week.
Grade: 10% mid-semester exam(s), 15% final exam, 25% written reports/papers, 25% class participation, 25% lab work
Exam format: 70% essay, 30% multiple choice
Course URL: www.hort.agri.umn.edu/woody/tre.htm

Hort 4072 Growing Plants Organically: What It Means To Be Green

(Sec 001); prereq—1001 or Biol 2022 or PBio 3XXX or equiv, jr or sr or instr consent; 3 cr
Instructor: STAFF
Student may contact the instructor or department for information.
Class time: 30% lecture, 30% discussion, 30% student presentations; 10% Video tape
Work load: 10 pages of reading per week, 15 pages of writing per semester, 0 exams, 1 papers
Grade: 25% written reports/papers, 25% special projects, 20% in-class presentations, 30% lab work
Course URL: webct

Hort 4096 Professional Experience Program: Internship

(Sec 001); max crs 6; 6 repeats allowed; S-N only; prereq—COAFES undergrad, instr consent, complete internship contract available in COAFES Career Services before enrolling; UC only; 1-3 cr
Instructor: STAFF
Professional experience in horticulture films or government agencies through supervised practical work evaluation or reports and consultation with faculty advisors and employers.

Hort 5090 Directed Studies
(Sec 001); max crs 18; 18 repeats allowed; prereq—8 cr upper div Hort courses, instr consent; 1-6 cr
Instructor: STAFF
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.

Human Ecology
32 McNeal Hall; 612-624-1717

HE 1200V First-Year Honors Colloquium: Creative Problem Solving
(Sec 001); max crs 4; 4 repeats allowed; A-F only; prereq—CHE honors; meets CLE req of Writing Intensive; meets HON req of Honors; 2 cr
Instructor: Hokanson, Brad
How we generate new ideas is a critical skill in any field. It is a skill that can be employed on a small project or on a large project, but it must be developed and practiced. This course presents classic and new techniques known in the design fields through student activities, research, papers, projects, and exams. The use and mastery of creativity is the goal for this class and this semester. Assignments, lectures, discussions, and projects all will focus on this development of creative skills. This is the course that is the center of student activities at the University; it is the one course that deals most directly with creativity and creation. The nature of a student's university experience, particularly as a freshman, is a unique and different cognitive experience. We ask them to think logically, to have critical thinking skills, to explore ideas and to combine, integrate, and re-invent the way they think. No longer is a paper a reiteration of the same materials. Independent thought is acceptable, new ideas must be developed. How students (and others) are creative is tied to their mental abilities. Too often the development of just one answer is the result of our educational system: there is only one right answer. We select our students on the basis of their ability to play by the rules of high school and standardized tests. They (and we) need the ability to think beyond linear, expected thinking and to be creative.
Class time: 5% lecture, 30% discussion, 35% laboratory, 30% Something different
Work load: 10 pages of reading per week, 40 pages of writing per semester, 1 exams, 15 papers, As noted, something different
Grade: 30% written reports/papers, 15% quizzes, 15% in-class presentations, 20% class participation, 20%
Exam format: n/a
Course URL: 160.94.18.218/creative/

HE 4150H Honors Seminar: A Framework for Understanding Diversity
(Sec 001); max crs 6; 6 repeats allowed; prereq—=HSEM 3010; Honors student; CHE students must take A-F; meets HON req of Honors; 2 cr
Instructors: Sullivan, Maura C; Williams, Oliver Joseph; Davila-Williams, Sonia
This course is designed for students to begin exploring the roots of oppression and to develop an understanding of "ism". It will use a multicultural framework that recognizes the concept of multiple identities and the complex interaction of racism with the systematic dynamics of oppression based on other identities such as gender, ethnicity, class, sexual orientation, ability and religion. Through this class the students will link how common to an understanding of the dynamics of oppression in the United States. The students will also look at the history of intolerance in the USA and how this relates to "other making" in our political, economical, and social interaction with other countries. This class will be oriented toward participation and will require active engagement in the topics and discussions. Two assignments will be required, an individual paper and a group paper.
Grade: 100% written reports/papers

HE 4160H Honors Capstone Project
(Sec 001); max crs 4; A-F only; prereq—CHE honors, instr consent; A-F only; meets HON req of Honors; 2 cr
Instructor: STAFF
A scholarly "Capstone" project that provides students with an opportunity to individualize the Honors Experience and make connections between aspects of their major program and personal interests.

Human Factors
220 Cooke Hall; 612-[illegible]

HumF 5001 Foundations of Human Factors/Ergonomics
(Sec 001); Same as: KIN 5001; A-F only; prereq—Enrollment in good standing, grad HumF minor; 3 cr
Instructor: Smith, Thomas J
Human Factors/Ergonomic (HF/E) science is an interdisciplinary area of study focusing on how human performance & behavior are influenced by design factors in the performance environment. The prevailing theme in any & every manifestation of human performance—occupational, social, organizational, institutional, technological, educational, sport & recreation, community, etc.—is interaction between human behavior (human factors) & design factors in the environment in which performance occurs (ergonomics). This course will address the question of how & why variability in human performance—with quality, productivity, efficiency, safety & health implications—is influenced by interaction with designs of machines & tools, computers & software, technological systems, jobs & working conditions, organizations & sociotechnical systems. The course will emphasize conceptual, empirical & practical aspects of HF/E science with an emphasis on how the performance, saftey & design of complex sociotechnical systems can benefit from the application of HF/E principles & methods. From a scientific perspective, we are concerned with delineating the major factors underlying variability in skilled human performance. From a practical perspective, we are concerned with how to improve the ergonomic design of the performance environment so as best to benefit skilled performance. The course will address these issues in the following contexts: Consumer Product Design; Cognitive Performance and Learning;
Class time: 60% lecture, 30% discussion, 10% field trips
Work load: 10-20 pages of reading per week, 40 pages of writing per semester, 0 exams, 3 papers, 2 class presentations
Grade: 80% written reports/papers, 20% in-class presentations
Exam format: no exams

Human Resource Development
425 VoTech; 612-624-7481

HRD 5301 Organization Development
(Sec 002); A-F only; 3 cr
Instructor: Bartlett, Kenneth Russell
This course is designed for both upper level undergraduates and graduate students to provide an introduction to major theories, concepts, skills, and techniques for organization development in business and industry. Upon completion of the course, students will be able to: 1) Define organization development (OD) with its main objectives and characteristics. 2) Describe the historical roots and theoretical underpinnings of OD. 3) Apply the action research model for professional practice. 4) Describe the phases of small group development and characteristics of effective small group participation. 5) Participate effectively in small groups. 6) Identify the components of organizational culture. 7) Identify and differentiate between the roles of internal and external change agents in organization. 8) Identify at least three intervention strategies at the individual, small group and large systems levels. 9) Define readiness for change. 10) Describe their own strengths and areas for improvement as they apply to OD involvement; describe the value of self-knowledge in the consultant. 11) Identify potential ethical dilemmas in OD consultation and describe strategies for resolving them. 12) Develop an intentional learning community. Two required textbooks guide students in their learning and in preparation of an OD intervention proposal, which is prepared in small groups and presented to the class.
Class time: 60% lecture, 40% discussion
Work load: 100 pages of reading per week, 40-50 pages of writing per semester, 2 exams, 2 papers
Grade: 15% mid-semester exam(s), 25% final exam, 15% written reports/papers, 25% in-class presentations, 5% class participation, 15% , case study
Exam format: Mix

Hum 1001 Humanities in the West I
(Sec 001, 002); Same as: HUM 3001; prereq—=3001; meets CLE req of Other Humanities Core; 4 cr
Instructor: Norwood, James
Heritage of Greece and Rome—This course focuses on the influence of Ancient Greece and Rome in the Western tradition of art, literature, history, and ideas. Classes will cover the range of artistic expression in those eras. Readings will include selected works of Aeschylus, Sophocles, Euripides, Aristophanes, and Plato from Greece. From the period of Rome, we will study the works of Seneca, Marcus Aurelius, Plautus, Horace, Virgil, and Ovid. The format of the course will be that of both lecture and discussion. In examining art, literature, history, philosophy, and cultural values, we will seek connections among the various disciplines. Throughout the course we will examine how the tradition of Western humanities has shaped institutions, social roles, and personal values we still possess today. In our interdisciplinary work, we will assimilate a significant body of information, but we will also seek to discover a way of thinking about our culture then and now. Video and slide presentations will accompany many of the classes. The course may be taken for upper-division credit by registering for Hum 3001. IMPORTANT: Class attendance is required and will be a component of grading in this course. This is intended as a lively learning experience with the class constituted from a wide range of students throughout the university. Please address any questions to James Norwood via e-mail: norwo001@tc.umn.edu
Class time: 40% lecture, 40% discussion, 20% Video and slide presentations
Work load: 80-100 pages of reading per week, 2 exams
Grade: 45% mid-semester exam(s), 45% final exam, 10% , Class attendance
Exam format: 40% objective, 60% essay

Hum 1002 Humanities in the West II
(Sec 001); Same as: HUM 3002; prereq—credit will not be granted if credit received for: 3002; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: Norwood, James
This course will focus on the historical, literary, cultural, religious, and ideological implications of the Middle Ages (c. 400-1500 AD) and the far-reaching humanistic legacy of this period in the Western tradition. Classes will cover the range of cultural expression in this period, with a focus on the lives of influential figures in the Middle Ages, including St. Augustine, Charlemagne, Eleanor of Aquitaine, Thomas Beckett, and others. A special focus in the course will be on Gothic architecture, with emphasis on the French Gothic cathedrals. Another course component will focus intensively on the life of Joan of Arc. Our readings will be placed within their context in major European historical developments in this period. The format of the course will be that of both lecture and discussion. In examining art, literature, history, philosophy, and cultural values, we will seek connections among the various disciplines. Throughout the course, we will examine how the tradition of the Western humanities has shaped institutions, social roles, and personal values we still possess today. In our interdisciplinary work, we will assimilate a significant body of information. But we will also seek to discover a way of thinking about our culture then and now. The same course may be taken for upper-division credit by registering for Hum 3002. This is intended as a lively learning experience with the class constituted from a wide range of students throughout the university.
Class time: 45% lecture, 45% discussion, 10% Video and slide presentations will accompany many of the classes.
Work load: 70-90 pages of reading per week, 2 exams, class attendance (required)
Grade: 45% mid-semester exam(s), 45% final exam, 10% , IMPORTANT: Class attendance is required and will be an essential component in grading in this course
Exam format: 40% Objective; 60% Essay

Hum 1005 Humanities in the West V
(Sec 001); Same as: HUM 3005; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: Norwood, James
HERITAGE OF THE 19TH CENTURY: PROGRESS, SCIENCE AND ART Our focus will be on the ideas, social theory, art & literature of the 19th century, with emphasis on the themes of society & the Industrial Revolution, science & art. The first half of the course, we examine selected works of Jane Austen, John Stuart Mill, Marx, Ibsen, Mary Shelley, Thoreau, and Jules Verne. The second half, focus will shift to the late 19th & early 20th centuries, with emphasis on the themes of science and art, as we examine selected works of Darwin, Strindberg, Chekhov, Nietzsche, Wilde, Freud, Conrad, Flaubert & Proust. The format will be lecture/discussion. In examining art, literature, history, philosophy & cultural values, we seek connections among the disciplines. Throughout the course we examine how the tradition of the Western humanities has shaped institutions, social roles & personal values we still possess today. In interdisciplinary work, we assimilate a significant body of information, but we also seek to discover a way of thinking about our culture then & now. Video/slide presentations will accompany many of the classes. The same course may be taken for up-div credit by registering for Hum 3005. IMPORTANT: Class attendance is required & will be a component in course grading. This is intended as a lively learning experience with the class constituted from a wide range of students throughout the university. Please address questions to James Norwood via e-mail: norwo001@tc.umn.edu
Class time: 40% lecture, 40% discussion, 20% video and slide presentations
Work load: 70-90 pages of reading per week, 5-10 pages of writing per semester, 2 exams
Grade: 45% mid-semester exam(s), 45% final exam, 10% , class attendance
Exam format: 40% objective; 60% essay

Hum 3001 Humanities in the West I
(Sec 001, 002); Same as: HUM 1001; prereq—=1001; meets CLE req of Other Humanities Core; 4 cr
Instructor: Norwood, James
Heritage of Greece and Rome—This course focuses on the influence of Ancient Greece and Rome in the Western tradition of art, literature, history, and ideas. Classes will cover the range of artistic expression in those eras. Readings will include selected works of Aeschylus, Sophocles, Euripides, Aristophanes, and Plato from Greece. From the period of Rome, we will study the works of Seneca, Marcus Aurelius, Plautus, Horace, Virgil, and Ovid. The format of the course will be that of both lecture and discussion. In examining art, literature, history, philosophy, and cultural values, we will seek connections among the various disciplines. Throughout the course we will examine how the tradition of Western humanities has shaped institutions, social roles, and personal values we still possess today. In our interdisciplinary work, we will assimilate a significant body of information, but we will also seek to discover a way of thinking about our culture then and now. Video and slide presentations will accompany many of the classes. The course may be taken for 1000-level credit by registering for Hum 1001. IMPORTANT: Class attendance is required and will be a component of grading in this course. This is intended as a lively learning experience with the class constituted from a wide range of students throughout the university. Please address any questions to James Norwood via e-mail: norwo001@tc.umn.edu
Class time: 40% lecture, 40% discussion, 20% Video and slide presentations
Work load: 100-120 pages of reading per week, 5-10 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% , Class attendance
Exam format: 40% objective, 60% essay

Hum 3002 Humanities in the West II
(Sec 001); Same as: HUM 1002; prereq—credit will not be granted if credit received for: 1002; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: Norwood, James
This course will focus on the historical, literary, cultural, religious, and ideological implications of the Middle Ages (c. 400-1500 AD) and the far-reaching humanistic legacy of this period in the Western tradition. Classes will cover the range of cultural expression in this period, with a focus on the lives of influential figures in the Middle Ages, including St. Augustine, Charlemagne, Eleanor of Aquitaine, Thomas Beckett, and others. A special focus in the course will be on Gothic architecture, with emphasis on the French Gothic cathedrals. Another course component will focus intensively on the life of Joan of Arc. Our readings will be placed within their context in major European historical developments in this period. The format of the course will be that of both lecture and discussion. In examining art, literature, history, philosophy, and cultural values, we will seek connections among the various disciplines. Throughout the course, we will examine how the tradition of the Western humanities has shaped institutions, social roles, and personal values we still possess today. In our interdisciplinary work, we will assimilate a significant body of information. But we will also seek to discover a way of thinking about our culture

then and now. This is intended as a lively learning experience with the class constituted from a wide range of students throughout the university.
Class time: 45% lecture, 45% discussion, 10% Video and slide presentations will accompany many of the classes.
Work load: 100-125 pages of reading per week, 5-10 pages of writing per semester, 2 exams, 1 papers, class attendance (required)
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/ papers, 10%, IMPORTANT: Class attendance is required and will be an essential component in grading in this course
Exam format: 40% Objective; 60% Essay

Hum 3005 Humanities in the West V
(Sec 001); Same as: HUM 1005; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 4 cr
Instructor: Norwood, James
HERITAGE OF THE 19TH CENTURY: PROGRESS, SCIENCE AND ART Our focus will be on the ideas, social theory, art & literature of the 19th century, with emphasis on the themes of society & the Industrial Revolution, science & art. The first half of the course we examine selected works of Jane Austen, John Stuart Mill, Marx, Ibsen, Mary Shelley, Thoreau & Jules Verne. The second half focus will shift to the late 19th & early 20th centuries, with emphasis on the themes of science and art, as we examine selected works of Darwin, Strindberg, Chekhov, Nietzsche, Wilde, Freud, Conrad, Flaubert and Proust. The format will be lecture/ discussion. In examining art, literature, history, philosophy & cultural values, we seek connections among the various disciplines. Throughout the course we examine how the tradition of the Western humanities has shaped institutions, social roles & personal values we still possess today. In interdisciplinary work, we assimilate a significant body of information, but we also seek to discover a way of thinking about our culture then and now. Video/slide presentations will accompany many of the classes. The same course may be taken for 1000-level credit by registering for Hum1005. IMPORTANT: Class attendance is required & will be a component in course grading. This is intended as a lively learning experience with the class constituted from a wide range of students throughout the university. Please address questions to James Norwood via e-mail: norwo001@tc.umn.edu
Class time: 40% lecture, 40% discussion, 20% video and slide presentation
Work load: 70-90 pages of reading per week, 5-10 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/ papers, 10%, class attendance
Exam format: 40% objective; 60% essay

Hum 3029 Music in the 20th Century
(Sec 001); Same as: MUS 3029; 3 cr
Instructor: Jackson, Donna Cardamo
This course is designed expressly for undergraduate non-music majors. It introduces the themes that have shaped European/American music in the 20th century, while encouraging active involvement in listening and developing an awareness of concurrent developments in the visual arts, dance, and literature. Emphasis is placed on cultural contexts, linking composers to other creative figures, e.g., Debussy/Mallarme; Stravinsky/ Diagilev; Satie/Cocteau; Crumb/Lorca. Influences on composers such as the effects of war and politics, the Great Depression, advancing technology, and current social issues (AIDS and the Holocaust) are treated through thematically correlated reading and listening assignments. Videotapes of historically significant works introduce concepts of modernism and post-modernism. This course aims to explore a rich diversity of music from a global perspective, to address the influence of ethnic and popular music on western composers, and to explore creative fusions in art and rock music. Topics to be covered are: the origins of modernism in Paris and Vienna at the turn of the century, experimental traditions and jazz in the 1920's; American music during the Harlem Renaissance and Great Depression; music and politics in Russia and Eastern Europe; post-war modernism; the anti-establishment generation (rock music and minimalism in the 1960's); the post-modern generation.
Class time: 75% lecture, 25% discussion
Work load: 30-50 pages of reading per week, 5 pages of writing per semester, 2 exams, 1 papers
Grade: 33% mid-semester exam(s), 33% final exam, 33% written reports/ papers
Exam format: Multiple choice, short answer, and essay

Hum 3677 Self-Realization in 20th-Century Western Literature
(Sec 001); 2 cr
Instructor: Kliger, George
The purpose of the course is to explore selected works of 20th century Western literature which deal with the theme of the individual's quest for meaning, self-understanding, and self-realization in specific social and cultural contexts. The literary works examined are chosen for the depth, richness, and variety of perspectives which they bring to bear on the theme in question. The course will examine Joseph Conrad's "Heart of Darkness," Kate Chopin's "The Awakening," James Joyce's "A Portrait of the Artist as a Young Man," Jean Paul Sartre's "The Flies," and Herman Hesse's "The Glass Bead Game." Among the ideas and issues explored will be the Victorial ideal of woman, turn-of-the-century Western conceptions of the native African; the notion of "the darkness within us" (Conrad); early 20th century American views on women's role in society (Chopin); nationalism and Catholicism as dominant ideologies in 20th century Irish society, the role of the artist in society and the nature and function of the work of art (Joyce); personal identity as potentials to be actualized (Chopin, Joyce, Hesse); or as implementation of a freely chosen project (Sartre); the relationship of the self to vocation/profession (Joyce, Hesse).
Class time: 80% lecture, 20% discussion
Work load: 50 pages of reading per week, 3 exams
Grade: 50% mid-semester exam(s), 50% final exam
Exam format: take-home essays

Industrial Engineering
125 Mechanical Engineering

IE 5441 Engineering Cost Accounting and Cost Control
(Sec 001); A-F only; 4 cr
Instructor: STAFF
To train students to become better problem solvers, appreciate the importance of cost and revenue estimates, and inputs. To actively seek opportunities to improve customer satisfaction and reduce costs. Subject matter: (1) Financial Accounting—Preparation of financial statements to generate information for users external to the organization according to the prescribed rules and conventions. Accounting for inventories; Plants, equipment depreciations, Accounts Receivables; liabilities, Stockholders' equity, cash flow statements, and analysis of financial statements.(2) Time Value of Money—Collapsing the time element in the cashflow of inputs and outputs for various alternatives: Elementary exposure how to handle risk, the material is not covered in the textbook. Supplementary reading material will be prescribed. (3) Managerial Accounting (Chapters 15-24) Accounting for management and control of manufacturing and service operations. Topics of job casting, process costing, activity based costing, activity based management, standard costing and variance accounts, responsibility accounting, transfer prices, performance evaluation, operational and capital budgeting. The focus is to improve problem solving and decision making capabilities to improve productivity, profitability for the firm and improve value to the customer through improving value chain integration reducing quality losses and through business process reengineering.
Class time: 60% lecture, 10% discussion, 30% problem solving
Work load: 80 pages of reading per week, 3 exams, 10 exercises/week
Grade: 40% mid-semester exam(s), 60% final exam
Exam format: problems; The final exam will be comprehensive with an 80% weight to management accounting. Homework

IE 5511 Human Factors and Work Analysis
(Sec 001); A-F only; prereq—Upper div IT or grad student; 4 cr
Instructor: Kvalseth, Tarald O
Course content is the same as that given in the Course Catalog. Th instruction style is primarily based on lectures. There are also weekly recitation exercises that are partly done during class time. The content of the course follows quite closely the course textbook. it is a relatively practical course with a variety of real-life cases being discussed. The target audience of the course is expected to be primarily mechanical and industrial engineering students, upper division and a few graduate students, but also some students from other departments.
Class time: 80% lecture, 5% discussion, 15% recitation
Work load: 30 pages of reading per week, 0 pages of writing per semester, 3 exams, 0 papers
Grade: 45% final exam, 50% quizzes, 5%, recitation exercises
Exam format: short essay questions

IE 5513 Engineering Safety
(Sec 001); A-F only; prereq—Upper div IT or grad student; 4 cr
Instructor: Kvalseth, Tarald O
Course content is the same as that given in the Course Catalog. The instruction style is primarily based on lectures. There are also weekly recitation exercises. The content of the course follows quite closely the course textbook. It is a relatively practical course with a variety of real-life cases being discussed. The target audience of the course is expected to be primarily mechanical and industrial engineering students, upper division and a few graduate students, but also some students from other departments, as well as engineers working for local companies.
Class time: 85% lecture, 5% discussion, 10% recitation
Work load: 25 pages of reading per week, 3 exams
Grade: 45% mid-semester exam(s), 50% quizzes, 5% problem solving
Exam format: short essay questions

Information and Decision Sciences

3-365 CarlSMgmt 612-624-8030

IDSc 3201 Information Systems Application Development
(Sec 001); A-F only; prereq—3001, MIS major; 4 cr
Instructor: STAFF
This course is the beginning of the Carlson MIS Major degree program. Its subject is the process and tools necessary to build a complete information system given a specification. The selected set of tools is Microsoft Visual Basic Version 6.0. The primary learning mode in 3201 is learning by doing. In class we will present and explain concepts, demonstrate some solutions or parts of solutions, and respond to questions about the text and the assignments. In chapter readings and individual tutorial assignments, you will work through all of the tools, concepts, and techniques that are part of each chapter. This is a programing-intensive course.

Institute of Technology

105 Lind Hall 612-624-8504

IofT 0001 Fundamentals of Engineering Review (E.I.T. Refresher)
(Sec 001); S-N only; prereq—Bachelor's degree in engineering; 0 cr
Instructor: Coyle, Timothy James
This course is a review of engineering fundamentals required to pass the National Council of Engineering Examiners Fundamentals of Engineering examination. It is designed to aid in preparation for the EIT examination by presenting an organized review of material ordinarily contained in a college engineering curriculum. Primary emphasis will be on problem solving with orientation as close as possible to the type of questions contained in the exam. Prerequisite: Engineering or equivalent degree or candidate for degree Instructors: Tim Coyle, P.E. (651) 634-7220 (o) (612) 490-1174 (h) E-mail: tcoyle@sebesta.com Dan Nordell, P.E. (612) 330-5822 (o) (612) 786-7674 (h) E-mail: d.nordell@ieee.org. Note: this course begins early in Fall Semester on Tuesday August 14.
Class time: 50% lecture, 50% discussion
Work load: 100 pages of reading per week

IofT 1101 Environmental Issues and Solutions
(Sec 001); prereq—High school chemistry or equiv, one yr high school algebra; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 4 cr
Instructor: Semmens, Michael John
The worldÆs population now exceeds 6 billion people. Everyone needs water, energy, food and housing, but as we become more affluent we use more, and waste more. ManÆs needs and desires have a dramatic impact on the environment including loss of habitat, a reduction in biodiversity, loss of resources, and pollution problems. In the US and other developed countries we continue to deplete resources as if they are infinite. This course will address the behavior of natural systems, manÆs impact on the environment, how we are trying to meet the challenges of supplying the population with water, energy, food etc. while trying to minimize negative impacts. Students will participate in hands-on water quality labs, field trips and small discussion groups. Grade is based on attendance, lab reports, and 12 weekly quizzes.

IofT 1312 Exploring Careers in Science and Engineering
(Sec 001); 2 cr
Instructor: STAFF
Exploration of career interests related to careers in Mathematics, Sciences, and Engineering. Individual interest skills, values, and self-assessment utilizing specific career inventories. Interest testing and career decision-making enhanced through guest speakers, site tours, and information interviews. Students will also learn basic job search skills such as resume and cover letter writing, interviewing, and job search strategies. The course is appropriate to any IT student or current U of M student considering an IT major.

Interdepartmental Study

135 Johnston Hall 612-624-7577

ID 1201 Career Exploration
(Sec 001-004); prereq—Fr or soph; 2 cr
Instructor: STAFF
Freshmen and sophomores: Wondering which major to pick? Wondering what you can do with your major? During this class, you'll learn more about yourself, how to choose a major, and how to best prepare yourself for a career in the 21st century world of work. You will consider your interests, abilities, and values; you'll also learn about the role that classes, internships, community service, work experience, hobbies, and travel will play in your future success. Attendance at all classes and active class participation is highly encouraged. A $20 fee will be charged for career assessment inventories.
Class time: 30% lecture, 40% discussion, 30% Group and individual activities.
Work load: 10 pages of reading per week, 10-15 pages of writing per semester, 4 papers, 3 special projects.
Grade: 40% written reports/papers, 30% special projects, 10% in-class presentations, 10% lab work, 10% , attendance
Exam format: No exams.

ID 3201 Career Planning
(Sec 001-003); 2 cr
Instructor: STAFF
Juniors and seniors—wondering what you'll do after you graduate? Learn how your individual talents, values, interests and experiences, matched with state-of-the-art career strategies, will position you in today's marketplace. Emphasis is on understanding the 21st century work world, understanding yourself, identifying what you'd like to do for a living, and marketing yourself. We'll explore careers and address strategic resume writing, networking and interviewing. Attendance at all classes and active class participation is highly encouraged. A $20 fee will be charged for career assessment inventories.
Class time: 25% lecture, 45% discussion, 30% small group work
Work load: 20 pages of reading per week, 15 pages of writing per semester, 3 papers, self assessment packet and special projects
Grade: 35% written reports/papers, 25% special projects, 10% in-class presentations, 15% class participation, 15% , attendance

ID 3211 Internship: Perspectives on Work
(Sec 001); prereq—dept consent, internship through Career and Community Learning Center; 4 cr
Instructor: STAFF
This course is about experiential learning, and is for students doing internships of at least 10 hours per week throughout the semester. Credit is given for coursework and for completing the internship. You will integrate classroom and experiential learning by reflecting on your internship via regular small group meetings with peers and written journal assignments. Emphasis is on creating your own learning agenda; observing and analyzing your organization; understanding where it fits into the world and what it contributes; and identifying how you and your values fit into it. The class is open to all majors.
Class time: 20% lecture, 45% discussion, 35% small group work
Work load: 25 pages of reading per week, 30 pages of writing per semester, 1 papers, 1 portfolio
Grade: 16% written reports/papers, 17% special projects, 33% class participation, 33%

ID 3571 HECUA Off-Campus Study Program: Metro Urban Studies Term Reading Seminar
(Sec 001); prereq—concurrent enrollment in 3572, 3573, dept consent; contact CCLC, 345 FraserH, 626-2044; 4 cr
Instructor: STAFF
The Metro Urban Studies Term (MUST) is a Twin Cites-based, active learning, semester-long study program that explores the roots of urban inequality and poverty and familiarizes students with cutting edge strategies and social policy alternatives that aim to address urban issues. The program has a number of components. In the Reading Seminar students explore theoretical foundations necessary to understand the roots, dynamics and persistence of urban inequality.In the Field Seminar students meet directly in the community with important activists, policy makers and city residents of diverse backgrounds to investigate key social problems and their solutions. In the Internship students work three full days a week in an organization exploring career options, building networks, gaining job experience and delving deeply into some aspect of urban inequality. An Integration seminar connects all of the classroom and experiential learning. The program is full-time and provides a full semester of academic credit. MUST is open to all undergraduates who have completed the Freshman year. Primary faculty: Phillip Sandro, PhD. Offered Fall and Spring semesters. Contact: Teresa Thomas-Carroll, Career and Community Learning Center, 345 Fraser Hall, 626-2044. Students register for ID 3571, 3572, and 3573.
Class time: 5% lecture, 25% discussion, 70% internship, group field experiences, special projects
Work load: 100 pages of reading per week, 100 pages of writing per semester, 3 papers, 7 journal assignments; in-class writing
Grade: 35% written reports/papers, 20% special projects, 15% class participation, 30% , 10% internship evaluation, 20% journal
Exam format: essay/paper

ID 3573 HECUA Off-Campus Study Program: Metro Urban Studies Term Internship Seminar
(Sec 001); prereq—concurrent enrollment in 3571, 3572, dept consent; contact CCLC, 345 FraserH, 626-2044; 8 cr
Instructor: STAFF
The Metro Urban Studies Term (MUST) is a Twin Cites-based, active learning, semester-long study program that explores the roots of urban inequality and poverty and familiarizes students with cutting edge strategies and social policy alternatives that aim to address urban inequality. The program has a number of components. In the Field Seminar students meet directly in the community with important activists, policy makers and city residents of diverse backgrounds to investigate key social problems and their solutions. In the reading Seminar students explore theoretical foundations necessary to understand the roots, dynamics and persistence of urban inequality. In the internship students work three full days a week in an organization exploring career options, building networks, gaining job experience and delving deeply into some aspect of urban inequality. The program is full-time and provides a full semester of academic credit. MUST is open to all undergraduates who have completed the Freshman year. Primary faculty: Phillip Sandro, PhD. Offered Fall and Spring semesters. Contact: Teresa Thomas-Carroll, Office for Special Learning Opportunitites (OSLO), 345 Fraser Hall, 626-2044

ID 3993 Directed Study
(Sec 001); max crs 8; 8 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
Opportunity to explore in greater detail and depth topics contained in regularly-offered ID courses. In almost all cases students develop a project idea in consultation with the instructor of the ID course they have already taken.

Interdisciplinary Medicine
3-105 Cwre Hall (Box 331; 612-625-3622

InMd 3001 Human Anatomy
(Sec 001); max crs 4; prereq—[Biology or equiv], soph; 3 cr
Instructor: Bauer, G Eric
Objectives of the course: To provide an understanding of human anatomy with emphasis on the relationship of structure to function. Intended for pre-professional undergraduate students and others who wish to obtain a basic understanding of the structure of the human body. Lectures are presented on tissues and organ systems; exams are short answer (matching, multiple choice, etc.) Prereq: students should have completed Biol 1009 or equivalent.
Class time: 100% lecture
Work load: 25 pages of reading per week, 0 pages of writing per semester, 4 exams, 0 papers
Grade: 65% mid-semester exam(s), 35% final exam
Exam format: multiple choice
Course URL: www.med.umn.edu/anatomy/

Italian
260 Folwell Hall; 612-624-4308

Ital 1001 Beginning Italian
(Sec 001-014); 5 cr
Instructor: STAFF
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. Homework is designed to give students further practice; audio materials (cassette or CDs) play an integral part in the program. 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. Students who pass 1001 with a grade of "C" or higher can then move on to Italian 1002.
Class time: 30% lecture, 30% discussion, 40% small group or pair work
Work load: 45 to 60 minutes of homework per class
Grade: 15% final exam, 10% written reports/papers, 25% quizzes, 20% class participation, 20% problem solving, 10% , oral exams
Exam format: Fill in the blank; true/false; essay. short answer

Ital 1003 Intermediate Italian
(Sec 001-008); prereq—1001-1002; 5 cr
Instructor: STAFF
Italian 1003 is the third semester course of Italian language and culture. (Students must have completed the equivalent of a year of university level Italian instruction before taking this course.) 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 current 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 third semester students who pass with a grade of C or higher are ready to move on to Italian 1004 or study in Italy.

Ital 1004 Intermediate Italian
(Sec 001); prereq—1101-1102; 5 cr
Instructor: STAFF
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 cutural presentation, which is both written and spoken. Italian films are integrated into the program. This course prepares students for the Graduation Proficiency Test that is required for graduation from CLA (the test is given on a Saturday in April). 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.
Class time: 30% lecture, 40% discussion, 30% Group work
Work load: 45-60 min. per day
Grade: 15% final exam, 10% written reports/papers, 30% quizzes, 5% in-class presentations, 30% problem solving, 10% , Oral exam
Exam format: essay, short answer, fill-in-blank, true/false, matching

Ital 3015 Reading, Conversation, and Composition
(Sec 001); prereq—1004; 4 cr
Instructor: STAFF
Intensive reading, writing, and speaking practice and study of cultural materials in authentic formats.

Ital 3501 The World in the City: Italy 1100-1660
(Sec 001); prereq—3015; 3 cr
Instructor: Martinez, Ronald L
This course is organized as a series of intense examinations of written and visual texts in their historical and cultural contexts. Each segment focuses on specifiec monuments, artworks or historical events. A typical series of such "moments" is 1) The Sienese under the 'Nine' and frescoes of the Good and Bad Government in the Palazzo Pubblico (1348), studied along with texts by Dante, Petarch, and Cola da Rienzo; 2) the building of

Brunelleschi's dome to the Cathedral of Santa Maria Novella in Florence (1424), studied with a story about Brunelleschi's most famous joke; 3) The Sistine Chapel and Vatican stanzas (Michelangelo, Raphael) and Cardinal Bibbienas's private bathroom: studied in connection with the Sack of Rome (1527) and Aretino's satires on Rome; 4) Palladio's Teatro Olimpico in Vicenza (1585), studied with Tasso's tragedy "Re Torrismondo"; 5) Galileo's "Starry messenger" and the Copernican Revolution, studied with poetry by Giambattista Marino and the fairy tales of Giambattista Basile (1634). Quizzes, mid-term and final exam; the last weeks of the course will include a student-run seminar on one of the last two topics.

Ital 4970 Directed Readings
(Sec 001); max crs 4; prereq—instr consent; 1-4 cr
Instructor: STAFF
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
(Sec 001); max crs 16; 4 repeats allowed; prereq—instr consent; 1-4 cr
Instructor: STAFF
Meets unique requirements decided on by faculty member and student. Individual contracts are drawn up listing contact hours, number of credits, written and other work required.

Japanese

Folwell Hall 612-625-6534

Jpn 1011 Beginning Japanese
(Sec 001-010, 050, 051); 5 cr
Instructor: STAFF
This course is the first of a two-semester sequence of Beginning Japanese; it is for students who have no previous knowledge of Japanese. It aims to begin developing communication skills in Japanese. Therefore, the course introduces the four skills of language (speaking, listening, reading, and writing) as well as culture-specific skills (do's and don'ts). Topics covered in this semester include meeting people for the first time, shopping, extending invitations, etc. The course consists of 5 hours of discussion session and 2 hours of lecture session per week. Discussions are performance-oriented; teachers guide students' practice in Japanese situations. Students are expected to spend 2 hours per day doing homework and practicing with CDs/tapes for each class. Most of the grade for the course is based on daily performance rather than on tests. Textbook: Banno. et al. "Genki: An integrated course in elementary Japanese".
Class time: 28% lecture, 72% discussion
Work load: 2 hours of preparation per day
Grade: 17% quizzes, 30% class participation, 53% , 35% exams, 18% homework
Exam format: 5 Chapter tests and 2 oral interviews
Course URL: www.all.umn.edu/japanese_language/home.html

Jpn 3021 Intermediate Japanese
(Sec 001-006, 050, 051); prereq—1012 or instr consent; 5 cr
Instructor: STAFF
Class Description: Prerequisite: Japanese 1012 (5 credits). This course is the first of a two-semester sequence of Intermediate Japanese; it is for students who have taken Jpn1012 or have passed the placement test. The course aims to develop the four communication skills (i.e., speaking, listening, reading, and writing) on the intermediate level as well as culture-specific skills (do's and don'ts). Topics covered in this semester include job interviews, finding a lost article, giving advice, etc. The course consists of 3 hours of discussion sessions and 2 hours of lecture sessions per week. Class performance in the discussion session accounts for a large part of the course grade. For each class, students are expected to spend 2 hours per day doing homework and practicing with CDs. Textbook: Banno. et al. (1999). Genki: An integrated course in elementary Japanese, Vol. 2. For the placement test information, refer to the homepage of the Japanese language program.
Class time: 40% lecture, 60% discussion
Work load: 4 chapter tests and 2 oral interviews
Grade: 15% quizzes, 4% in-class presentations, 30% class participation, 51% , 36% exams; 15% homework
Exam format: 4 chapter tests and 2 oral interviews
Course URL: www.all.umn.edu/japanese_language/home.html

Jpn 3031 Third-Year Japanese
(Sec 001, 002); prereq—3022 or instr consent; 4 cr
Instructor: STAFF
The course consists of 3 hours of recitation (taught entirely in Japanese) and 1 hour of lecture per week. Recitations are performance-oriented. Teachers guide students in practice in Japanese situations, and reading is taught in context. Lectures include analysis of video, grammar and socio-cultural aspects of Japan. This course also focuses on the improvement of reading skills, with emphasis on increased ability to recognize and write Kanji (Chinese characters) and to comprehend complex sentence structures in authentic materials. Assignments outside of class are designed to develop speaking, listening, reading, and writing skills at the upper intermediate level. Students are expected to practice with tapes at least 2 hours for each class. Texts: Jorden. E.M. and Mari Noda "Japanese: The Spoken Language Part 2," "Japanese: The Spoken Language Part 3,"and "Japanese: The Written Language (Part 2)."
Class time: 25% lecture, 75% discussion
Work load: 3 exams
Grade: 30% mid-semester exam(s), 15% final exam, 35% class participation, 20% , quizzes and homework
Exam format: writing, oral interview, reading
Course URL: www.all.umn.edu/japanese_language/home.html

Jpn 3166 Japanese Film
(Sec 001); meets CLE req of Other Humanities Core; 3 cr
Instructor: Anderson, Mark
This course will introduce students to a variety of Japanese film and anime ranging over a historical period from the 1930s to the present. The course will particularly focus on changing articulations of gender and sexual identity over time. We will explore ties between the Japanese film industry's genre system, production values, and star system in the articulation of gender and sexuality. The last section of the course will focus on the cyborg in Japanese anime and its ramifications for gender and identity in a contemporary and increasingly international context.
Class time: 40% lecture, 60% discussion
Work load: 70 pages of reading per week, 8 pages of writing per semester, 1 exams, 1 papers
Grade: 33% mid-semester exam(s), 33% written reports/papers, 33% class participation
Exam format: Essay

Jpn 4041 Advanced Japanese Conversation and Composition
(Sec 001); prereq—3032 or instr consent; 4 cr
Instructor: STAFF
Discussion in Japanese of topics relevant to modern Japanese society. Written homework and compositions assigned in Japanese to increase writing skills. Readings in Japanese at the advanced level, with continued emphasis on vocabulary acquisition and recognition/reproduction of kanzi (Chinese character).
Class time: 10% lecture, 90% discussion
Work load: 3 exams
Grade: 20% mid-semester exam(s), 10% final exam, 10% quizzes, 50% class participation, 10% , homework
Course URL: www.all.umn.edu/japanese_language/home.html

Jpn 5160 Topics in Japanese Literature: The Secrets of Secrecy in Japanese Esoteric Texts
(Sec 001); max crs 8; 4 cr
Instructor: Morinaga, Maki
Gei is a critical concept in Japanese cultural history. It means "artistic skill that you can/should acquire through rigorous training". Practitioners across artistic fields, ranging from theater to martial arts, to the tea ceremony and to flower arrangement, have conceptualized their expertise under the name of gei and have transmitted their gei in an extremely specific way: hiden, that is, "secret transmission". In other words, they have left their knowledge, be it choreography or training methodology, with great care only to their most trusted "sons". This course explores Japanese cultural history in terms of these two concepts of great moment: gei will be the matrix of our study and hiden our theme. Among various artistic arenas, we will mainly study the following two examples: theater and swordsmanship. For the former, we will read treatises of the noh theater. For the latter, the two most well-known texts, Miyamoto Musashi's "The Book of Five Rings" and Yagyv Munenori's "The Book of Family Traditions on the Arts of War", will be analyzed. No physical training is involved in either case. Reading knowledge of Japanese or previous course work in Japanese studies, such as literature, will be helpful, but not required. All of the readings will be available in English. Audio-visual materials will be used whenever available and appropriate.

Jpn 5164 Readings in Early Modern Japanese Literature
(Sec 001); A-F only; prereq—3032 when readings are in Japanese or instr consent; 4 cr
Instructor: Anderson, Mark
This course will feature readings in Japanese of both Japanese fiction and non-fiction. Third year Japanese is a pre-requisitie for this course. We will devote a significant portion of course time to works by Akutagawa Ryunosuke, Hayashi Fumiko, and Sakaguchi Ango, but a variety of works by other writers will be included as well. We will work on developing reading skills in Japanese, the ability to distinguish distinct Japanese prose styles, and identifying gender coding in the modern Japanese rhetorical tradition.

Jewish Studies
330 Folwell Hall 612-625-5353

JwSt 1034 Introduction to Judaism
(Sec 001); Same as: JWST 3034, RELA 1034, RELA 3034; prereq—credit will not be granted if credit received for: 3034, RelA 1034, RelA 3034; no knowledge of Hebrew required; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Yadin, Azzan I
The goal of this course is to present a historic overview of the cultural and intellectual development of the Jewish People from the Rabbinic Period to the present. In order to best present such a broad topic, the course will combine background lectures and readings with the study of select primary texts in translation. The focus of these readings will be the figure of Moses. This approach will allow the class to trace the development of a central motif as it is reinterpreted by each generation in light of its own historical concerns and problems. Among the issues that will be discussed: The formation of Rabbinic Judaism and the break between Judaism and Christianity; Jew-Greek, Philo and Hellenistic Judaism; Medieval philosophy (Maimonides) and mysticism (Kabbalah); the Jewish Enlightenment; Zionism; American Judaism; and Women and Judaism. The course is intended for students majoring in any area of study and does not assume any prior knowledge of Jewish history or Jewish customs.
Class time: 85% lecture, 15% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 quiz; 5 one to two paragraph response papers responding to class issues
Grade: 35% mid-semester exam(s), 50% final exam, 5% quizzes, 10% class participation
Exam format: essay

JwSt 3034 Introduction to Judaism
(Sec 001); Same as: JWST 1034, RELA 1034, RELA 3034; prereq—=3034, =JwSt 1034, = JwSt 3034; no knowledge of Hebrew required; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Yadin, Azzan I
The goal of this course is to present a historic overview of the cultural and intellectual development of the Jewish People from the Rabbinic Period to the present. In order to best present such a broad topic, the course will combine background lectures and readings with the study of select primary texts in translation. The focus of these reading will be the figure of Moses. This approach will allow the class to trace the development of a central motif as it is reinterpreted by each generation in light of its own historical concerns and problems. Among the issues that will be discussed: The formation of Rabbinic Judaism and the break between Judaism and Christianity; Jew-Greek, Philo and Hellenistic Judaism; Medieval philosophy (Maimonides) and mysticism (Kabbalah); the Jewish Enlightenment; Zionism; American Judaism; and Women and Judaism. The course is intended for students majoring in any area of study and does not assume any prior knowledge of Jewish history or Jewish customs.
Class time: 85% lecture, 15% discussion
Work load: 50 pages of reading per week, 15-20 pages of writing per semester, 2 exams
Grade: 35% mid-semester exam(s), 50% final exam, 5% quizzes, 10% class participation
Exam format: essay

JwSt 3521W History of the Holocaust
(Sec 001); Same as: RELS 3521W; Credit will not be granted if credit has been received for: HIST 3727W; meets CLE req of Writing Intensive; 3 cr
Instructor: Feinstein, Stephen
This course will attempt to document and analyze the Holocaust—in particular, the background, development and systematic extermination of European Jews and Roma/Sinti (gypsies) by the Nazis. Not only were Jews affected by policies of the Third Reich ("Nazi Germany"), but others labeled "undesirable" or "subhuman" were also exterminated in this process. There were also political enemies of the regime. In this course, particular attention will be given to the phenomenon of anti-Semitism, in both its religious and secular forms, to the relationship between mass murder or genocide and the growth of bureaucracy and technology, and to the challenges posed by the Holocaust for religious and humanistic beliefs and values. There are a wide variety of historiographical approaches that have tried to analyze why the Holocaust happened in Germany, the most enlightened and "modern" country in Europe. As a subject of history, however, the facts and analytical skills derived from many disciplines should be able to provide answers that fit into an overall framework of historical knowledge.
Class time: 90% lecture, 10% discussion
Work load: 250 pages of reading per week, 35 pages of writing per semester, 1 exams, 3 papers
Grade: 25% final exam, 70% written reports/papers, 5% class participation
Course URL: webct3.umn.edu

JwSt 3900 Topics in Jewish Studies
(Sec 001-003); max crs 12; 4 repeats allowed; A-F only; prereq—instr consent; 3 cr
Instructor: Baer, Elizabeth R
Despite the fact that Holocaust Studies is now a mature field, with academic conferences, centers for research, distinguished chairs and dozens of scholarly publications annually, the topic of women and the Holocaust remains, at best, in its infancy. Why have Holocaust scholars been so slow or reluctant to adopt the insights of Women's Studies? We will explore this question, speculating about the reasons, and looking at the material which has emerged on gender and the Holocaust. We will also work specifically on what needs to happen next in this emergent field: bringing a specifically feminist methodology and theoretical framework to understanding the experiences of women in the Holocaust and the Third Reich, their memories of the experiences, and their expressions/representations of those memories.

Journalism and Mass Communication
111 Murphy Hall 612-625-9824

Jour 1905 Freshman Seminar
(Sec 001); A-F only; prereq—Fr with no more than 24 cr; 3 cr
Instructor: Sullivan, Daniel Joseph
This freshman seminar offers you the opportunity to explore the major areas of broadcast management and operations at one of the midwest's and the nation's leading television stations. Students will have an opportunity to learn firsthand the role of each department, major areas of responsibility and the integration of each department in forming the whole of station operations. Any freshman considering a career in journalism or any aspect of broadcasting should consider this unique seminar.
Class time: 60% lecture, 40% discussion
Work load: 50-100 pages of reading per week, 6-9 pages of writing per semester, 2 exams, 3 papers, 1 oral presentation
Grade: 20% mid-semester exam(s), 33% final exam, 33% written reports/papers, 14% class participation
Course URL: webct.umn.edu

Jour 3008 Mass Communication Processes and Structure
(Sec 001); A-F only; prereq—Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; 3 cr
Instructor: Lee, Chin-Chuan
This course is open to majors and non-majors. Will the newspaper die, now that we have the Internet? Is it such a big deal for AOL Time-Warner to own an Internet company, a publishing empire, a motion picture producer, and CNN? How does media advertising affect political financing? How can Internet pornography be regulated? How "national' is network television news? Do journalists copy each other's work? How important is the media to our everyday life? This course seeks to examine (a) the relationships between media organizations and their politico-economic contexts, (b) the dynamics within media organizations, as well as (c)the media impact on public constituencies. Textbook: David Croteua and William Hoynes

(2000), "Media Society: Industries, Images and Audiences", 2nd ed. Thousand Oaks, CA: Pine Gorge Press. Additional readings will be assigned.
Class time: 60% lecture, 10% cctv, 30% discussion
Work load: 40 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 20% class participation
Exam format: Multiple choice and essay

Jour 3173W Magazine Writing
(Sec 001); A-F only; prereq—3004W, 3101, [jour major or approved IDIM major or ICP major or BIS major]; meets CLE req of Writing Intensive; 3 cr
Instructor: Roberts, Nancy Lee
This course gives undergraduate journalism majors practice in writing long-form journalism for magazines, both print and online. Topics covered include: types of magazines and other outlets for long-form journalism; how to get ideas for articles; how to research, organize, and write articles; writing style and strategies; and selected aspects of marketing to editors (such as writing the query letter). Lecture, discussion, and small-group writing critiques. Also, some guest speakers from the local professional community will share their insights. Students will write at least 3 different magazine articles ranging in length from about 1200 to 3,000 words, plus rewrites, which will be submitted for publication to an appropriate editor. Other assignments include a magazine audience analysis and a query letter.
Class time: 50% lecture, 30% discussion, 20% small-group writing critiques
Work load: 75-100 pages of reading per week, 30 pages of writing per semester, 0 exams, 5 papers, at least 3 articles plus rewrites; & other assignments
Grade: 80% written reports/papers, 20% class participation

Jour 3201 Principles of Strategic Communication: Advertising
(Sec 001); A-F only; prereq—Jour major or jour minor or design comm premajor or design comm major or graphics design premajor or graphics design major or approved IDIM major or ICP major or BIS major; 3 cr
Instructor: Rodgers, Shelly L
This course is designed to teach students the nuts and bolts of advertising. Students will leave the course with a basic understanding of how the ad industry is structured, how people process ads and how to put together an integrated marketing communications campaign. Some of the topics to be covered include: What makes an ad great? How does advertising work? How has advertising changed since Sept. 11? The course will be web enhanced but the URL is not yet available.
Class time: 40% lecture, 30% discussion, 30% Critical Thinking Exercises
Work load: 30 pages of reading per week, 17-20 pages of writing per semester, 1 exams, 1 IMC Campaign
Grade: 15% mid-semester exam(s), 30% written reports/papers, 25% special projects, 30% , IMC Campaign
Exam format: objective/multiple choice

Jour 3251 Strategic Communication Research
(Sec 001-003); A-F only; prereq—3004W, [3159 or 3201 or 3202], [jour major or approved IDIM major or ICP major or BIS major]; 3 cr
Instructor: STAFF
Jour 3251 section 001 will be taught by Brian Southwell. This section of the course will explore primary and secondary research methods as they relate to communication research problems. We will discuss both quantitative and qualitative approaches and also will talk about various measures used by professional and academic researchers. The course will use strategic communication research examples and address strategic communication concerns, such as audience construction. Any student interested in the general principals of social science research methods, however, will find much of the course to be useful. This course will be web enhanced and the URL will be provided during the first week of class.
Class time: 70% lecture, 30% discussion
Work load: 35 pages of reading per week, 20 pages of writing per semester, 1 exams, 6 assignments
Grade: 40% final exam, 20% class participation, 40% , assignments
Exam format: Mix of multiple choice and short response questions

Jour 3614 History of Media Communication
(Sec 001); A-F only; prereq—Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Fang, Irving
This survey course begins at the dawn of history and moves with necessary speed across the centuries to examine the media channels that carry messages. It considers six "information revolutions" that have influenced our lives: Writing, Printing, Mass Media, Entertainment, "The Toolshed Home," and "The Information Highway." We will trace the development of the media that were introduced in each period and consider their effects on society.

Jour 3771 Mass Media Ethics: Moral Reasoning and Case Studies
(Sec 001); A-F only; prereq—Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: Babcock, William A
There are endless ethical dilemmas facing today's journalists, advertisers, public relations and communications specialists. Sometimes a professional may not even see the ethical conflict. Sometimes a professional may not know how to deal with a conflict when it is recognized. This class will help students recognize the issues and to begin to think about how to deal with them. The course will help students learn about ethical principles and standards that have been used by the mass media. The class will use both a lecture and a discussion format. Classes will include the following topics: current issues in media credibility, history and evolution of ethical standards in journalism, news values, business pressures, conflicts of interest, reporters and sources, fairness and social justice, deception, accuracy, problems for persuasion communicators, privacy. The class will study actual cases drawn from many media sources. Students will be expected to participate by presenting their own examples of ethical dilemmas found in the media. A WebCT class website is used a great deal for case studies and discussion. Regular class attendance and participation is expected. Both the mid-term and final exams will be a combination of short essay answers and multiple choice. Several writing assignments will be made throughout the semester, requiring no more than 5 pages of double-spaced copy. A final paper of no more than 10 double-spaced pages is also planned.
Class time: 50% lecture, 50% discussion
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 5 papers
Grade: 25% mid-semester exam(s), 25% final exam, 30% written reports/papers, 20% class participation
Exam format: Short essay, multiple choice

Jour 3776 Mass Communication Law
(Sec 001); A-F only; prereq—Jour major or jour minor or approved IDIM major or ICP major or BIS major; 3 cr
Instructor: Kirtley, Jane E
This course provides a basic understanding of mass media law, focusing on its impact on the working journalist. It examines significant court decisions and surveys the development of First Amendment law, including prior restraints, libel, privacy, reporters' privilege, access to courts and executive branch documents, advertising law and regulation of electronic communication. Students read a textbook and primary source materials, including court opinions and statutes. Midterm and final exams are primarily essay tests. There is also a short (10 page) paper, The course is designed for undergraduates with an interest in First Amendment media law.
Class time: 100% lecture
Work load: 100 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers, approximately 25 1-2 page case briefs
Grade: 25% mid-semester exam(s), 35% final exam, 40% written reports/papers
Exam format: Essay and a few short answer questions

Jour 4272 Interactive Advertising
(Sec 001); A-F only; prereq—Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; 3 cr
Instructor: Rodgers, Shelly L
This course is designed to teach students the nuts and bolts of interactive advertising (e.g., Internet advertising). We'll spend the semester discussing the biggest problems plaguing interactive advertisers, and attempt to solve some of these problems with in-class activities and virtual discussions. Some of the questions addressed include: What is interactive advertising and how does it differ from traditional advertising? How do people process interactive ads? What's the problem with measurement? And what are the implications for globalization on interactive advertising structures and processes?
Class time: 40% lecture, 20% discussion, 40% virtual discussions
Work load: 10-15 pages of reading per week, 20-30 pages of writing per semester, 1 exams, 0 papers, Student Consulting Project
Grade: 15% mid-semester exam(s), 55% written reports/papers, 30% , virtual discussions
Exam format: Objective with some essay

Jour 4274 Advertising in Society
(Sec 001); A-F only; prereq—Jour major or jour minor or approved IDIM major or ICP major or BIS major; 3 cr
Instructor: Wackman, Daniel Bruce
Advertising in Society will analyze from several perspectives—social, legal, and economic. We will examine a variety of topics under each perspective. This course differs from professionally-oriented classes you have taken which study advertising from the professional's perspectives. There will be a number of guest lectureres in this course. The first half of the course will examine topics related to economic effects of advertising, legal and regulatory issues in advertising, and ethical aspects of advertising. Under economics, we'll look at whether advertising raises or lowers the cost and price of producst, alters market share, primary demand and aggregate consumption, impacts on product innovation, and creates barriers to the entry of new competition. The second half of the course will examine different views regarding the nature of advertising as a social institution and some of the social criticism of advertising. Social criticism we will discuss include: political advertising, sterotyping, impacts of advertising. This course is primarily for majors, but non-majors are welcome.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers
Grade: 33% mid-semester exam(s), 33% final exam, 33% written reports/papers
Exam format: Essay

Jour 4552 Law of Internet Communications
(Sec 001); A-F only; prereq—Non-jour major or jour major with course appr on prog plan or pre-jour with adviser approval; 3 cr
Instructor: Kirtley, Jane E
There is really no such thing as "internet law." But electronic communications in cyberspace raise a variety of legal issues, including whether and how (and which) traditional media laws and regulations will apply, and how policy principles should be adapted to embrace the challenges of instantaneous and global discourse. This course will examine and explore some of these issues, including but not limited to jurisdiction, defamation, copyright and trademark, linking and framing, e-commerce, filtering, privacy, cryptography, surveillance, and security. JOUR 3776 is strongly recommended.
Class time: 10% lecture, 90% discussion
Work load: 100-150 pages of reading per week, 25 pages of writing per semester, 0 exams, 1 papers, a few quizzes
Grade: 50% written reports/papers, 5% quizzes, 20% in-class presentations, 25% class participation
Exam format: Quizzes are "short answer" or multiple choice.

Jour 4731H Honors: Communications Problems and Issues
(Sec 001); A-F only; prereq—[Jour major or jour minor or approved IDIM major or ICP major or BIS major], honors; meets HON req of Honors; 3 cr
Instructor: Sullivan, Daniel Joseph
This course focuses on problems and issues facing today's societies, media organizations and institutions. Students examine these problems and issues within the context of two major changes impacting the media landscape: 1) changes in the ownership and control of media organizations, and 2) changes in information and communication technology. Particular attention is paid to the impact that these changes are having on the values, the quality and the effectiveness of both journalists and strategic communicators.
Class time: 90% discussion, 10%
Work load: 100-150 pages of reading per week, 20-25 pages of writing per semester, 1 exams, 1 papers
Grade: 30% final exam, 50% written reports/papers, 20% class participation
Exam format: short essay
Course URL: webct.umn.edu

Jour 5541 Mass Communication and Public Health
(Sec 001); Same as: PUBH 5394; Credit will not be granted if credit has been received for: PUBH 5074; max crs 3; prereq—Jour major or jour minor or grad major or IDIM major or ICP major or BIS major; meets DELM req of classroom; 2-3 cr
Instructor: Finnegan Jr, John Robert
This course is designed to provide students in Public Health and graduate students in Epidemiology and Journalism and Mass Communication with an overview of theory and research into the role of mass media as they affect the public's health behavior. The role of mass media in public health is examnined both as a product of everyday interaction with media and their planned use to accomplish particular public health goals. Research examined looks both at planned and unplanned effects of mass media in a variety of health situations representing a range of public health topical concerns. The course also offers an opportunity to apply media knowledge to the planning of public health campaigns.
Class time: 30% lecture, 50% discussion, 20% group media planning project
Work load: 30 pages of reading per week, 30 pages of writing per semester, 1 exams, 1 papers, group media planning project
Grade: 20% final exam, 35% written reports/papers, 40% special projects, 5% class participation
Exam format: essay
Course URL: www.epi.umn.edu/epi_pages/Syllabi/PubH5394.html#top

Kinesiology
220 Cooke Hall, 612-625-3300

Kin 1050 Beginning Military Physical Fitness Training
(Sec 001); max crs 4; 4 repeats allowed; A-F only; 1 cr
Instructor: STAFF
The Beginning Military Physical Fitness class uses the military model as the basic premise of instructing physical fitness. The class incorporates 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
(Sec 001); A-F only; 2 cr
Instructor: STAFF
Examination of the professional and disciplinary dimensions of physical activity. Representative experiences include lecture, discussion, small group activities, and laboratory hours.

Kin 1989 Health and Society
(Sec 001); A-F only; prereq—=1999; 3 cr
Instructor: Meyer, David G
This course focuses on the complex factors that influence human health, both positively and negatively. The course includes analysis of the following: the role of behavior, the physical and social environments, policy, and economics in health. Health is conceptualized as multidimensional. In illustrating the multiple factors that influence health, we will explore a broad range of health topics; such as violence, sexual health, and nutrition. Students will learn about the wide variety of strategies implemented to promote health and prevent health problems, both for themselves and in their communities. Students work in small groups throughout the course to prepare facilitated classroom debates during the last week of class. The course is designed for undergraduate students.
Class time: 45% lecture, 45% discussion, 10% laboratory
Work load: 20 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers
Grade: 15% mid-semester exam(s), 15% final exam, 20% written reports/papers, 30% quizzes, 10% class participation, 10% lab work
Exam format: Varied

Kin 1993 Directed Study in Kinesiology
(Sec 001); max crs 6; A-F only; prereq—instr consent; 1-6 cr
Instructor: Pickert, Robert Richard
For the non-professional student who wishes to study a topic or problem under tutorial guidance.

Kin 3001 Lifetime Fitness and Health
(Sec 001, 002); A-F only; 3 cr
Instructor: Ingraham, Stacy Jean
Overview of fitness and health as a function of disease risk, nutrition, stress management, weight control, exercise, illicit drugs, nutraceuticals, and well-being. Base of action and knowledge needed for surviving school, maximizing performance, and living a healthier life. The format of the class is lecture oriented. The target audience for this class is students anticipating leading a healthy and productive life. 2 exams, 2 papers, self-examination labs.
Class time: 80% lecture, 5% cctv, 15% discussion
Work load: 15 pages of reading per week, 2 exams, 2 papers, self assessment labs
Grade: 20% mid-semester exam(s), 20% final exam, 5% written reports/papers, 5% special projects, 5% quizzes, 5% in-class presentations, 40% lab work
Exam format: Multiple choice

Kin 3050 Advanced Military Physical Fitness Training
(Sec 001); max crs 4; 4 repeats allowed; A-F only; prereq—4 cr of 1050 or instr consent; 1 cr
Instructor: STAFF
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 3111 Human Anatomy
(Sec 001); A-F only; prereq—=3110; 2 cr
Instructor: Hammond, Curtis W
Beginning anatomy course for non-Kinesiology students pursuing coaching licensure of for non-professional students interested in an exercise science approach to anatomy. Focus on a regional approach to muscle, nerve, and circulatory anatomy of the limbs and trunk and a systematic anatomy approach for circulatory, respiratory, digestive, urinary, and nervous systems. Students are encouraged to voluntarily attend arranged demonstrations of human cadaver dissections. This is a lecture-based course. There is little homework, but there are several tutorial (non-graded) assignments. There are three, two-part exams which may be repeated and an optional final exam. Human anatomy requires a vast amount of memorization. For this reason, I have strived to compress and group concepts in such a way as to relieve some of the memorization load. Some science background (i.e., zoology, physiology, physics, etc.) is helpful, but not required.
Class time: 80% lecture, 20% laboratory
Work load: 8-20 pages of reading per week, 2 pages of writing per semester, 3-4 exams, 0 papers
Grade: 100% , Three exams/ if total average is high enough....no final exam. Three exams @ 33.3%—Final up to 66%.

Kin 3112 Introduction to Biomechanics
(Sec 001); A-F only; prereq—[[3027 or 3111 or CBN 1027], PHYS 1101W, CEHD student] or instr consent; 3 cr
Instructor: Konczak, Juergen
This is an introductory course to biomechanics. The lecture portion of the course introduces basic concepts of physics and applies them to the analysis of human motion. The laboratory sessions are designed to provide hands-on experiences and to familiarize students with the array of instrumentations used for biomechanical analysis. Basic knowledge of trigonometry and algebra is highly recommended. This course is required for majors in kinesiology. It is also suitable for physical therapists and students in human physiology and biomedical engineering.
Class time: 60% lecture, 10% discussion, 30% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers
Grade: 30% final exam, 20% written reports/papers, 30% quizzes, 20% lab work
Exam format: A mix of multiple choice, essay questions

Kin 3114 Prevention and Care of Athletic Injuries
(Sec 001); A-F only; prereq—[[3027 or 3111 or CBN 1027], CEHD student] or instr consent; 3 cr
Instructor: Kiff, Thomas Anthony
Course is a comprehensive introduction to the techniques involved in the prevention, care, management and rehabilitation of athletic injuries. A functional understanding of gross anatomy is necessary for successful completion of this course. Very appropriate course for athletic training students, coaches, and pre-physical therapy students.
Class time: 100% lecture
Work load: 40 pages of reading per week, 5 pages of writing per semester, 3 exams, 1 papers
Grade: 40% mid-semester exam(s), 20% final exam, 20% written reports/papers, 20% quizzes
Exam format: multiple choice, true/false, short answer

Kin 3126W Psychology and Sociology of Sport
(Sec 001, 002); A-F only; prereq—Kin major; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
An introduction to the foundations of sport and exercise psychology and sociology, which examines people and their behaviors within sport contexts from both a group and individual perspective.

Kin 3131W History and Philosophy of Sport
(Sec 001, 002); A-F only; prereq—Kin major or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Larson, James Erling
Introductory description and interpretation of the historical and philosophical development of physical education and sport from primitive societies to 20th century civilization. An emphasis in classic lectures will be placed on Ancient Civilizations and topics not necessarily found in the textbook. The textbook and special class presentations will be the major source of information for medieval and modern sport.
Class time: 70% lecture, 10% discussion, 20% Video presentations, readings and participation
Work load: 100 pages of reading per week, 15 pages of writing per semester, 2 exams, 2 papers, Extra credit—includes presentations, video viewing and general assignments
Grade: 15% mid-semester exam(s), 30% final exam, 50% written reports/papers, 5% special projects, Must have an average of "C" on written assignments to pass.

Kin 3133 Motor Control, Learning, and Development
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 3132 or 3135; Kin maj or instr consent; 3 cr
Instructor: Yank, Jane Redfield
This class is a survey of observations, concepts, and principles guiding the emergence, development, control, and adaptation of movement over the lifespan. Beginning with interuterine growth and development, we observe and assess the impact of individual factors such as perception, environmental influences, and task contraints on performance. A dynamical systems approach to movement provides the foundation for understanding principles of motor control, learning, and development. The class requirements include text and literature readings. 45% of the grade results from performance on five labs and one major project; 55% of the grade is based on two exams through the semester (15% each) and a final exam (25%).
Class time: 65% lecture, 10% discussion, 25% laboratory
Work load: 40 pages of reading per week, 15 pages of writing per semester, 3 exams, 5 labs (reports are 2 pages each; major project
Grade: 15% mid-semester exam(s), 25% final exam, 15% special projects, 30% lab work, 15% , 2nd exam
Exam format: Exams include true/false, short answer, short essay
Course URL: webct3.umn.edu/SCRIPT/KIN3133_f02/scripts/serve_home

Kin 3151 Measurement, Evaluation, and Research in Kinesiology
(Sec 001, 002); A-F only; prereq—credit will not be granted if credit received for: 3150; Kin major or instr consent; 3 cr
Instructor: Perry, Reid Alan
This course is designed to acquaint the student with the philosophy of evaluation, measurement, and research in physical education and exercise science. It includes an introduction to basic statistics, test administration, selection of appropriate test, test construction, and an introduction to qualitative assessment of movement. The course will also include an overview of the research process.
Class time: 30% lecture, 30% discussion, 40% laboratory
Work load: 25 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers
Grade: 50% mid-semester exam(s), 25% final exam, 25% special projects
Exam format: Multiple choice; short answer

Kin 3171 Baseball Coaching
(Sec 001); prereq—credit will not be granted if credit received for: 3170; 1 cr
Instructor: STAFF
Class is designed for the kinesiology teaching major that intends on coaching baseball at some level post graduation.

Kin 3172 Basketball Coaching
(Sec 001); prereq—credit will not be granted if credit received for: KIN 3171; 1 cr
Instructor: Petersen, Michael E
This course is designed to focus on techniques, style of offense and defense, conditioning, handling of players, and overall programming.
Class time: 75% lecture, 15% discussion, 10% practice observation
Work load: 1 exams, 2 papers
Grade: 25% final exam, 25% written reports/papers, 25% special projects, 25% class participation

Kin 3179 Track and Field Coaching
(Sec 001); prereq—credit will not be granted if credit received for: KIN 3178; 1 cr
Instructor: STAFF
Basic training and conditioning programs, event characteristics, coaching strategies, knowledge of track and field meet administration.
Class time: 75% lecture, 15% discussion, 10% Learn by doing
Work load: 40 pages of reading per week, 10 quizzes
Grade: 70% final exam, 20% quizzes, 10% class participation
Exam format: Multiple choice, essay

Kin 3181 Wrestling Coaching
(Sec 001); prereq—credit will not be granted if credit received for: KIN 3179; 1 cr
Instructor: Russell, Joseph L
The course will cover the following topics: Philosophy of coaching, risk management, effective teaching, program development, psychology of coaching, developing wrestling skills, training, nutrition and sports medicine.
Class time: 25% lecture, 25% discussion, 50% Video analysis
Work load: 35 pages of reading per week, 3 pages of writing per semester, 1 exams, 3 papers
Grade: 50% written reports/papers, 30% special projects, 20% class participation
Exam format: Multiple choice

Kin 3327 Teaching Physical Education in the Elementary School
(Sec 001, 002); A-F only; prereq—Elem ed major; 2 cr
Instructor: Mally, Kristi Kay
Overview of the elementary physical education process with focus on a classroom teacher's perspective and needs. Representative experiences include participation, lecture, micro-teaching, lesson planning and final project.
Class time: 10% lecture, 20% discussion, 70% Participation in activity in gym/microteaching.
Work load: 0 exams, Pages of reading varies a lot for the first two weeks and then limited to topic choices; two written
Grade: 30% special projects, 20% class participation, 50%, microteaching projects—include lesson plan, and microteaching, and reflection.

Kin 3385 Human Physiology for Kinesiology Students
(Sec 001); A-F only; prereq—[[3027 or CBN 1027 or equiv], kin major] or instr consent; 3 cr
Instructor: Kelly, Aaron Scott
KIN 3385 is a general human physiology course that will provide a comprehensive overview of the function of the human body. This course will be mainly lecture oriented and will be supplemented by laboratory exercises.
Class time: 75% lecture, 25% laboratory
Work load: 45 pages of reading per week, 10 pages of writing per semester, 4 exams, 0 papers
Exam format: multiple choice

Kin 3696 Supervised Practical Experience
(Sec 001, 002); max crs 10; 10 repeats allowed; S-N only; prereq—credit will not be granted if credit received for: 3625; Kin major instr consent; 1-10 cr
Instructor: Pickert, Robert Richard
Supervised practical experience on the job in the fields of sport and exercise under a specialist in a particular area of study. Grading is S/N only, based on: 1) completed journal or log, 2) completed hours signed off by your mentor, and 3) completed evaluation form sent back by the specialist. 10 maximum credits; each credit equals to 40 working intern hours. Undergraduates—seniors in Kinesiology.

Kin 3993 Directed Study in Kinesiology
(Sec 001, 004, 006-008, 011, 013-017, 019, 023, 025); max crs 10; 5 repeats allowed; A-F only; prereq—instr consent; 1-10 cr
Instructor: Anderson, Bruce D
For Kinesiology majors who wish to study a topic or problem under tutorial guidence.

Kin 5001 Foundations of Human Factors/Ergonomics
(Sec 001); Same as: HUMF 5001; A-F only; 3 cr
Instructor: Smith, Thomas J
The course will address these issues in the following contexts: Consumer Product Design; Cognitive Performance and Learning, Psychomotor Performance, Behavioral Cybernetics of Human Performance; Effects of Perturbed Sensory Feedback on Performance; Machine and Tool Performance; Interactive Performance with Complex Technological Systems (Human/Computer; Human/Robot); Occupational Performance and Safety; Social and Team Performance; Organizational Performance; and Performance of Complex Sociotechnical Systems (Aerospace, Educational, Manufacturing, Transportation, Community and Health Systems. Field tours of selected private sector operations are provided to complement classroom activities. Course assignments encompass a series of class presentations, reports, and term projects dealing with HF/E analyses of consumer product design, design of complex sociotechnial systems and job/workplace design features and issues. The course represents the core course in the campus-wide, interdisciplinary Human Factors Minor Program, and is intended for graduate and upper-level undergraduate students with an interest in the conceptual and practical aspects of HF/E science.
Class time: 60% lecture, 30% discussion, 10% field trips
Work load: 10-20 pages of reading per week, 40 pages of writing per semester, 0 exams, 3 papers, 2 class presentations
Grade: 80% written reports/papers, 20% in-class presentations
Exam format: no exams

Kin 5103 Developmental/Adapted Physical Education
(Sec 001); A-F only; 3 cr
Instructor: Leitschuh, Carol
Introduction to physical education for students with disabilities that emphasizes movement skills assessment within the context of the legal mandates serving children with disabilites, school administration, and resulting individual education programs and resources.
Class time: 80% lecture, 10% discussion
Work load: 35 pages of reading per week, 5 exams
Grade: 25% final exam
Exam format: Multiple choice and essay

Kin 5141 Nutrition for Health and Physical Performance
(Sec 001); A-F only; prereq—FScN 1112 or equiv; 3 cr
Instructor: Leon, Arthur S **!!Henry L Taylor Prof in Health!!**
Requirements and physiologic roles of nutrients and physical activity in promotion of health and performance; assessment of energy requirements. RDAs, food composition and safety, weight management, and prevention of chronic diseases with emphasis on coronary heart disease. Lectures and slide presentations, take-home project self-assessing one's own usual diet and exercise habits. Target audience: advanced undergraduate and graduate students with science background, preferably with a previous nutrition course, majors and non-majors in Kinesiology.
Class time: 90% lecture, 10% cctv
Work load: 40 pages of reading per week, 10 pages of writing per semester, 5 exams, 1 papers
Grade: 40% mid-semester exam(s), 50% final exam, 10% special projects
Exam format: Multiple choice and short answer

Kin 5152 Curriculum Development in Physical Education
(Sec 001); A-F only; prereq—initial licensure/MEd phys ed student; 2 cr
Instructor: Hanson, George L
This course is designed for students enrolled in the Initial Teacher Licensure Program in K-12 Physical Education and for physical education teachers in the field. The course focus is on trends, issues, and changes in society and education and the impact and importance they have on Curriculum and Instruction in Physical Education at all grade levels, K-12. Minnesota's Physical Education Outcomes competency standards and assessment will be the model. APHPERD and Minnesota's definition of a Physically Educated person as well as NASPE and Minnesota Graduation Standards will be analyzed. The Minnesota Coordinated School Health Initiative will be shared. Texts include the NASPE Physical Education Standards and Minnesota Department of CFL documents. Journals, internet and local district materials will be utilized. There will be quizzes, short assignments, class discussion, and 3 distinct projects.
Class time: 60% lecture, 40% discussion
Work load: 10-20 pages of reading per week, 20-30 pages of writing per semester, 2 exams, 3 papers, 5 to 6 short assignments
Grade: 10% mid-semester exam(s), 30% final exam, 15% written reports/papers, 30% special projects, 5% quizzes, 10% class participation

Kin 5196 Practicum: Developmental/Adapted Physical Education
(Sec 001); max crs 4; 4 repeats allowed; S-N only; prereq—5103 or equiv or instr consent; 1-4 cr
Instructor: Leitschuh, Carol
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 5485 Electrocardiogram, Graded Exercise Testing, and Prescription
(Sec 001); A-F only; prereq—[3385, 4385] or instr consent; 3 cr
Instructor: Dengel, Donald Robert
This course will provide an introduction to electrocardiogram, including basic placement and interpretation of an electrocardiogram, as well as use of electrocardiogram in clinical exercise testing and exercise prescription. In addition, this course will offer hands-on experience in electrocardiogram and metabolic gas exchange for use during exercise testing. Following completion of this class students should be prepared for taking the American College of Sports Medicine certification exam in Health/Fitness Instructor. This class is intended for upper level undergraduate and graduate students.
Class time: 75% lecture, 25% laboratory
Work load: 20 pages of reading per week, 2 exams, 1 papers
Grade: 40% mid-semester exam(s), 40% final exam, 5% class participation, 5% lab work
Exam format: Multiple choice

Kin 5697 Student Teaching: Coaching
(Sec 001); max crs 10; 5 repeats allowed; S-N only; prereq—credit will not be granted if credit received for: 3624; admission to coaching program, instr consent; 1-10 cr
Instructor: Ingraham, Stacy Jean
Includes the coaching practicum and Wednesday evening seminar classes. The coaching practicum is designed to provide students with a supervised coaching experience in a sport setting of their choice. The seminar classes are designed to provide for an exchange of coaching experiences and ideas as well as for the completion of an Integrative Coaching Project.

Kin 5801 Legal Aspects of Sport and Recreation
(Sec 001); Same as: REC 5801; A-F only; prereq—Kin or rec major; 4 cr
Instructor: Kara, Frank
Legal issues and proceedures related to recreation, park, and sport programs/facilities in public/private sectors.
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week, 12 pages of writing per semester, 2 exams, 12 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% in-class presentations
Exam format: Essay

Kin 5981 Research Methodology in Kinesiology and Leisure Studies
(Sec 001); Same as: REC 5981; A-F only; prereq—3151 or equiv; 3 cr
Instructor: STAFF
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
(Sec 001, 004, 006-008, 011, 013, 015-017, 019, 023, 025); max crs 9; A-F only; prereq—CEHD student, grad, instr consent; 1-9 cr
Instructor: Anderson, Bruce D
Independent study under tutorial guidance.

Kin 5995 Research Problems in Kinesiology or Physical Education
(Sec 001, 004, 006-008, 011, 013, 015-017, 019, 023, 025); max crs 6; A-F only; prereq—Grad student or MEd student in Kin or instr consent; 1-6 cr
Instructor: Anderson, Bruce D
Research problems and readings on a selected topic in Kinesiology.

Korean

453 Folwell Hall 612-625-6533

Kor 1011 Beginning Korean
(Sec 001); 5 cr
Instructor: STAFF
Kor 1011 is the first half of the beginning Korean. This course focuses on the basic grammatical structure, vocabulary, and expressions of modern colloquial Korean. At the beginning of the semester, the Korean writing system, Hangul, will be introduced and simple expressions later on. Each student is required to have at least one Korean native language partner so that you can immediately use the concepts, grammar, and vocabulary we study in class. Applications will be available at the Tandem Conversation Partner Program, 319 Nolte Hall, MN English Center.
Class time: Lectures, listening lab, speaking activities.
Grade: short quizzes, mid-term and final exams, assignments, and class performance.
Exam format: both written and oral

Kor 3021 Intermediate Korean
(Sec 001); prereq—1012; 5 cr
Instructor: STAFF
Kor 3021 is the first half of the second year Korean. The course provides students with further conversational and grammatical skills beyond those leaned in first year Korean classes (Kor 1011 and 1012). This course deals with all four areas of the intermediate speaking, listening, reading, and writing. Each class is divided into two parts: one hour of lecture and one and one half hour of drill section. Lectures will include explanations of those conversational patterns in grammatical and pragmatic terms. Drill sections will provide the student with opportunities to practice in actual communicative situations with various tasks and group activities. Students are strongly encouraged to speak in Korean in drill sections. After completing Kor 3021, students are expected to be able to command a lengthy dialogue regarding various topis such as jobs, shopping, career plans, food, health, etc. Each student is required to have at least one Korean native language partner so that you can immediately use the concepts, grammar, and vocabulary we study in class. Applications will be available at the Tandem Conversation Partner Program, 319 Nolte Hall, MN English Center.

Kor 3031 Third Year Korean
(Sec 001); prereq—3022; 4 cr
Instructor: STAFF
Kor 3031 is the first half of the third year Korean. The course provides students with further conversational and grammatical skills beyond those learned in second year Korean classes (Kor 3021 and 3022). This course is designed to equip students with advanced communicative skills in speaking, reading, and writing at the advanced level in modern colloquial Korean. Skills for simple narration and written reports will be enhanced, and some basic Chinese characters may be introduced. Each class is divided into two parts: one hour of lecture and one and one half hour of drill section. Lectures will include explanations of those conversational patterns in grammatical and pragmatic terms. Drill sections will provide students with opportunities to practice in actual communicative situations with various tasks and group activities. Students are strongly encouraged to speak in Korean in drill sections. Each student is required to have at least one Korean native language partner so that you can immediately use the concepts, grammar, and vocabulary we study in class. Applications will be available at the Tandem Conversation Partner Program, 319 Nolte Hall, MN English Center.

Landscape Architecture

612-625-5650

LA 5301 Introduction to Drawing in Architecture and Landscape Architecture
(Sec 001); prereq—credit will not be granted if credit received for: 1301; LA grad student, accelerated B.E.D. student; 3 cr
Instructor: Abbott, Dean Frederi
This intro course is taught as a mini design studio. Drawing is taught as an integral part of the creative design process. Heavy emphasis is on the "convsutional" drawings of Landscape architecture and architectures: PLAN, SECTION, ELEVATION, PARALINE DRAWINGS, and PERSPECTIVE. Various graphic illustrative techniques in marker, pen, and pencil (black and white only) are demonstrated and expolored. Hands on instructor demonstration occurs at all points in drawing preparation.
Class time: 10% lecture, 40% direct drawing demonstration, 10 group project pin-up critique, 10% individual help, 30% in-clas
Work load: 10-12 drawing projects per term.
Grade: 100%, 20% suc. demo of principles taught, 20% quality of work, 20% completion of all work in timely fashio
Exam format: Final drawing project.

LA 5371 Computer Methods I
(Sec 001); Same as: ARCH 5371; S-N only; prereq—B.E.D. accelerated status or LA grad or instr consent; 1 cr
Instructor: Mikonowicz, Aaron A
This course is one of series of courses developed to familiarize you (the student) with various computer applications that are commonly used in the profession. The intent is to acclimate students with 2 dimensional image editing/manipulation, desktop publishing, electronic communication, and other on-line databases. The purpose of the lectures, tutorials, and assignments are to help you (the student) develop a working knowledge of the

computer skills and programs you will be needing in the future. Topics commonly covered; Digital Images, Scanning, Digital Cameras, PhotoShop, PageMaker, AutoCAD, and Excel.
Class time: 50% lecture, 50% laboratory
Work load: 1 Application assignment per two week period
Grade: 24% final exam, 15% special projects, 11% in-class presentations, 50% lab work
Exam format: Short answer

LA 5400 Topics in Landscape Architecture
(Sec 001-009); max crs 12; 12 repeats allowed; A-F only; prereq—B.E.D. accelerated status or LA grad or instr consent; 1-3 cr
Instructor: STAFF
Contemporary issues in Landscape Architecture

LA 5401 Directed Studies in Emerging Areas of Landscape Architecture
(Sec 001-009); max crs 12; 12 repeats allowed; prereq—B.E.D. accelerated status or LA grad or instr consent; 1-6 cr
Instructor: STAFF
Advanced independent studies in areas of student's choice

LA 5402 Directed Studies in Landscape Architecture History and Theory
(Sec 001-009); max crs 12; 12 repeats allowed; A-F only; prereq—B.E.D. accelerated status or LA grad or instr consent; 1-6 cr
Instructor: STAFF
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
(Sec 001-009); max crs 12; 12 repeats allowed; A-F only; prereq—B.E.D. accelerated status or LA grad or instr consent; 1-6 cr
Instructor: STAFF
Advanced independent studies in areas of Landscape Architecture with technology of the student's choice.

LA 5404 Directed Studies in Landscape Architecture Design
(Sec 001-009); max crs 12; 12 repeats allowed; A-F only; prereq—B.E.D. accelerated status or LA grad or instr consent; 1-6 cr
Instructor: STAFF
Advanced independent studies in areas of Landscape Architecture design of the student's choice

LA 5405 Interdisciplinary Studies in Landscape Architecture
(Sec 001-009); max crs 12; 12 repeats allowed; A-F only; prereq—B.E.D. accelerated status or LA grad or instr consent; 1-6 cr
Instructor: STAFF
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 5406 Urban Design Journal
(Sec 001-009); max crs 4; A-F only; prereq—Admitted to Denmark International Study Program co-prereqonsored by the University; given in Denmark; 3-4 cr
Instructor: STAFF
Methods and Theories in urban design and human behavior. Students develop journal as tool for experiencing, analyzing, and recording the urban landscape, its fabric, spatial elements, and individual components, and for analyzing design solutions.

LA 5407 Landscape Architecture Studio
(Sec 001-009); max crs 4; A-F only; prereq—Admitted to Denmark International Study Program co-prereqonsored by the University; given in Denmark; 3-4 cr
Instructor: STAFF
Individual and small-group projects focuisng on urban issues, design process in Danish conditions, solutions based on knowledge of danish problems in landscape and urban design and an understanding of how these problems are solved within Danish and European contexts.

LA 5408 Landscape Architecture, Architecture, and Planning
(Sec 001-009); max crs 4; A-F only; prereq—Admitted to Denmark International Study Program co-prereqonsored by the University; given in Denmark; 3-4 cr
Instructor: STAFF
Methods and theories in urban designand human behavior. Students develop urban design journal as tool for experiencing, analyzing, and recording the urban landscapes, its fabric, spatial elements, and individual components, and for analyzing design solutions.

Language, Teaching, and Technology

51 Folwell Hall; 612-625-3803

LgTT 5101 Applications of Technology in Language Teaching
(Sec 001); 3 cr
Instructor: Rowekamp, Jenise
Applications of Technology in Language Teaching provides new and experienced second language teachers with an overview of available technological resources (audio, video and computer) for language teaching, their role in enhancing language instruction, and the theoretical and methodological justifications for their use. 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 for lanugage teaching and learning. 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. The course will be web enhanced with a WebCT course site.
Class time: 10% lecture, 20% discussion, 40% laboratory, 30% demonstration
Work load: 20 pages of reading per week, 32 pages of writing per semester, 0 exams, 1 papers, 6 exploration/evaluation and 4 hands-on activities
Grade: 76% written reports/papers, 15% special projects, 9% class participation

Latin

350 Folwell Hall; 612-625-5353

Lat 1001 Beginning Latin I
(Sec 001-004); 5 cr
Instructor: STAFF
Latin, the language of the ancient Romans, has served as a means of communication for well over two thousand years. It is not only the chief language of one of the world's major civilizations, but also an international language for centuries after Rome's fall, the ancestor of the Romance languages, and an important influence on English. The aim of Beginning Latin is to prepare you to read unadapted Latin texts by providing a solid grounding in grammar and vocabulary along with oral and written practice. With this foundation you will be able to read a wide range of ancient, medieval, and Renaissance authors. In addition, Latin 1001 will help strengthen your grasp of English grammar and vocabulary. There is no prerequisite for this course.
Class time: 50% lecture, 50% discussion, recitation
Work load: written homework, frequent quizzes
Exam format: translation, grammar

Lat 3440 Advanced Undergraduate Latin: Later Latin
(Sec 001); max crs 12; 4 repeats allowed; prereq—3114 or dept consent; 3 cr
Instructor: Nicholson, Oliver **!!UC Outstanding Teaching Award!!**
Augustine: "City of God". In 410 A.D. the unthinkable occured. The invincible City of Rome, protected by the strongest Gods of the Ancient World, was besieged, captured and sacked by barbarians. Shock waves rolled around the world: "capta urbs totam cepit orbem" wrote S. Jerome far away in Palestine. The most considered reaction to the catastrophe was that of a bishop in a port city of North Africa. Augustine of Hippo's initial concern, expressed in his sermons, was with the immediate victims of the disaster, the refugees who crossed the Mediterranean to Africa and saftey. But over the 15 years which followed he wrote a massive reconsideration of the fundamental forces at work in all human history, his 22 book "De Civitate Dei", the "City of God". This is a work of wide-ranging erudition, much used in the Middle Ages as an encycloapedia. But it is also a thoughtful study of the basic human loyalties, "loves". Augustine calls them. We will be reading selections from this "magnum opus et arduum" in order to follow its argument rather than be blinded by its learning. The main emphasis of the class is on translating Augustine's Latin, though everyone will also write a brief paper on some aspect of the work, its author, or his life and times. The "City of God" is worth reading for the beauty of its style alone; we will also savour its ideas, in Latin.
Class time: 33% lecture, 33% discussion, 33% Translation
Work load: 2 exams, 1 papers
Grade: 20% mid-semester exam(s), 45% final exam, 35% written reports/papers
Exam format: Gobbets (explained in class), Translation

Latin American Studies

331 Soc Sci Tower 612-624-9007

LAS 3251 Role of Renewable Natural Resources in Developing Countries
(Sec 001); Same as: FR 3251, FR 5251; A-F only; prereq—=FR 3251; 1 cr
Instructor: Current, Dean Alan
International perspectives on resource use in developing countries, including the integration of natural resource issues with social, economic, and policy considerations. Overviews of agriculture, forestry, agroforestry, non-timber forest products, water resources, certification, and development issues, including Latin American case studies. Offered every fall.

LAS 3428 History of Relations Between U.S. and Mexico: 1821 to Present
(Sec 001); Same as: CHIC 3428, HIST 3428; prereq—=Chic 3428, =Hist 3428; meets CLE req of International Perspect Theme; 3 cr
Instructor: Winkler, Anne
In this class we will consider the relationship between Mexico and the United States from a world history perspective to see what we can learn about global trends and local particularities. The history of U.S./Mexican relations provides an excellent case study for examining global distribution of economic and political power among so called "first" and "third" world nations, in the 19th and 20th centuries, and exploring how those relations have shifted over time. For over 180 years the relationship between Mexico and the United States has been one of unequal exchange. Although Mexico has struggled with the United States for control of Mexican resources with some important successes, the level of inequality has multiplied from 1820 to 2001. We will explore the historical roots of this system of dependency, examine successful and unsuccessful efforts to change it and try to understand why it has persisted. The study of Mexican /U.S. relations, however, is much more complex than the story of inequalities and dependent development. Contending interests within each nation, including workers, corporations, peasants, farmers, agri-business, indigenous groups, artists and intellectuals, have helped shape the relationship, sometimes forming alliances with peers across the border. We will pay particular attention to these contending interests and their influence on cross-border relations.
Class time: 40% lecture, 40% discussion, 20% Movies, other audio-visuals
Work load: 80 pages of reading per week, 5 pages of writing per semester, 2 exams, 1 papers, Journal writing, presentation
Grade: 15% mid-semester exam(s), 15% final exam, 10% written reports/papers, 5% quizzes, 10% in-class presentations, 25% class participation, 20% , Journal writing
Exam format: Essays

Learning and Academic Skills

104 Eddy Hall 612-624-2546

LASk 1001 Mastering Skills for College Success
(Sec 001-009); 2 cr
Instructor: STAFF
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 "brief opportunities" to demonstrate your mastery of course material? Learn what to do before, during, and after the test—and how to keep your stress level under control.
Class time: 40% lecture, 30% discussion, 30% Applied activities
Work load: 30 pages of reading per week, 30 pages of writing per semester, 3 exams, 3 papers
Grade: 30% written reports/papers, 14% quizzes, 5% in-class presentations, 51% problem solving
Exam format: Multiple choice, True/False, Essay

LASk 1101 Academic Success
(Sec 001); S-N only; prereq—instr consent; 1 cr
Instructor: STAFF
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.
Class time: 100% LASk is an individualized study course. You meet weekly with an academic success consultant to devel
Work load: 30 pages of reading per week, 15 pages of writing per semester, 15 personal reflection assignments
Grade: 12% special projects, 40% class participation, 48% , Applied activities

Liberal Studies

170 Westbrook Hall 612-626-8724

LS 5100 Liberal Studies Seminar: Global Leveraging of Technology, Culture, Foreign Policy
(Sec 001); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 3 cr
Instructor: Hasselberg, John Martin
From the Vikings to Alfred Nobel, Ibsen to Bergman, ABBA to Bjork, to ABB, Ericsson Nokia, SAAB, Volvo, and Carlsberg, the small countries of the Nordic region participate in the global economy and society far out of proportion to their small populations. They have all evolved nearly overnight from agrarian to industrial to leading informational technology societies. They are the most gender balanced societies in the world with democratic and humane systems of social organization, globally aware cultures, ergonomically advanced industrial and product design, deeply embedded environmental stewardship, early leadership in United Nations, and global marketing of their artistic productions. What cross-developments of environment, religion, politics, technology, and social structures underlie the hyper-development of these societies in the last century? This seminar will explore through readings, film, music, and dialogue the diverse social, economic, and cultural forces that enabled Scandinavian societies to become globally engaged while remaining sensitive to the foibles of the human condition. From this regional microcosm we can learn more about the transferability of development elsewhere in the world, including into Minnesota's Scandinavian immigrants influenced society.

LS 5100 Liberal Studies Seminar: Is Journalism Dead? The Future of News
(Sec 002); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 3 cr
Instructor: Iggers, Jeremy Frankli
Journalism has long played a central role in American life; it has served as a watchdog on our democratic institutions, as a marketplace of ideas, as a common ground for different segments of society, and as a powerful shaper of our civic values. But American journalism is going through a period of profound and rapid change. The audiences for newspapers and network news programs have declined sharply over the past two decades, (except in times of national crisis), and that trend is expected to continue. Meanwhile, as ownership of the news media has been concentrated in a few large corporations, newsrooms are being reorganized to better meet the needs of advertisers and to cater to audiences largely uninterested in public affairs. At the same time, new media have emerged that compete with traditional news sources. As these options have expanded, mass audiences have been fragmented, and the advertising and entertainment industries have proved to be powerful shapers of the public's imagination and desires. Examine these trends and consider their implications for the future of journalism and American society.

LS 5100 Liberal Studies Seminar: Hanging Chads; Hidden Carnival of Post Modern Life
(Sec 003); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 3 cr
Instructors: Dennison, Sarah Matthia; Gustafson, Donna Mae J
Post-modern life hangs on the edge of the irrational. Theories of carnival comedy proposed by Mikhail Bakhtin, Umberto Eco and others, have been used in literary criticism to "read" the social and political significance of comic gestures in tests. Explore the carnivalesque as a model for investigating the meaning of seemingly irrational or opaque events and images. What do medieval carnival comedy and the 2000 American presidential election have in common? Examine carnival as an early European marketplace celebration and site of public discourse, and the reflections of its comic practices in later events, art, music, and culture. Special emphasis on the 20th century and on this distinctive style of humor as a tool for revealing hidden meaning in a post-modern setting.

LS 5100 Liberal Studies Seminar: Innovation Studies: Knowledge & Process Foundations
(Sec 004); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 3 cr
Instructor: Harkins, Arthur M
Presents key Innovation Studies models. It demonstrates how these models support individualized learning and leadership processes while being broadly based, dynamic, and collaborative. The models contribute to innovative self and team leadership strategies, define and apply just-in-time knowledge, and support life-long self-improvement skills.

LS 5100 Liberal Studies Seminar: Computers in Culture
(Sec 005); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 3 cr
Instructor: Lock, Peter William **!!CLA Distinguished Teaching Award!!**
Investigate the impact of computers on modern culture from a humanist perspective. The specifics of the new technology (e-text, graphical user interface, on-line documentation, interactive expert systems, asynchronous communication, etc.) will be subjected to a rigorous psychological, social and cultural critique. Questions to be discussed include: How does e-text connect with traditional oral and written discourse? How have computers changed the theory and practice of physical and mental work? Do computers tend to isolate and divide or can they be used to integrate and involve? Students will be expected to read widely in the topic and to reflect upon the function and influence of computers in their lives, in the workplace, and in contemporary and future societies.

LS 5100 Liberal Studies Seminar: Art in Social Context: Art Since the 1960's
(Sec 006); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 3 cr
Instructor: Ultan, Roslye B
Study in depth the relationships and the discord that have contributed to the development of visual expression (painting, sculpture, multi-media, per formative arts) in the last four decades of the 20th century. Emphasis will be placed on the exploration of the ideological disjunction of artistic expression that caused artists to use their bodies as canvases, perform 'violent acts', and the U.S. Congress to intervene and cut National Endowment funding in the early 1990s. This is balanced by attention to the intimate exchange of ideas and dependencies that supported and nurtured invention/experimentation in the arts during this challenging period. Explore works by Francis Bacon, Giacometti, Shimamoto, Bruce Connor and Fontana in terms of destruction of process as well as the new media of video and the confrontational dialogues of Bruce Nauman, Josef Beuys, and Mathew Barney. Through the eyes of the artist examine identity, place, and space in a rapidly alternated world of disjunction, rupture, and re-connections.

LS 5100 Liberal Studies Seminar: Genetics and Human Society
(Sec 008); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 2 cr
Instructor: Andregg, Michael M
Examine ancient issues of nature and nurture in light of modern technology and older perspectives from churches, law, and interactions between church, law, and science. Topics include the new biotechnologies, cloning, stem cell research, genetic engineering, implications for genetic disease and for society at large, Social Darwinism, IQ and the wealth of nations, GMOs, population pressure and conflict, and the biology of individual and social behavior. Critiques of deterministic views will examine both ancient and very new questions of ethical import.

LS 5100 Liberal Studies Seminar: Paradox of Leadership: Individual Rights, Common Good
(Sec 009); max crs 24; 24 repeats allowed; A-F only; prereq—Dept consent required; 2 cr
Instructor: Wilson, Sandra Antoinette
All of us struggle with the tension caused in the pull and tug between the rights guaranteed individuals in this society and what works for the good of all. Examine the theories of Servant Leadership, Individual Leadership Styles, and Personality. The practical application of these theories for moral courage in decision making and leadership is explored, seeking to bring balance to, and transform, our understanding of the Common Good.

Linguistics
215 Nolte Center; 612-624-5551

Ling 3001 Introduction to Linguistics
(Sec 001); Credit will not be granted if credit has been received for: LING 3001H, LING 3011, LING 5001; prereq—=3011, =5001; 4 cr
Instructor: Soh, Hooi Ling
Linguistics is the scientific study of language. This course is a general introduction to the various sub-fields of Linguistics. Our emphasis will be on the rules of structural representations found in each of the grammatical components of language: Syntax (phrase and sentence structure), Morphology (word structure), Phonology (sound structure), and Semantics (meaning). Students will learn the essential techniques for describing and analyzing linguistic data through working on examples taken from various languages of the world. the course will be conducted through lectures and discussions. Course requirements include regular assignments, a midterm and a final. Target audience is undergraduate and graduate students in linguistics and related disciplines.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 2 exams, 7 assignments/ problem sets
Grade: 30% mid-semester exam(s), 35% final exam, 35% problem solving
Exam format: Short answer

Ling 3001H Honors: Introduction to Linguistics
(Sec 001); Credit will not be granted if credit has been received for: LING 3001, LING 5001; prereq—credit will not be granted if credit received for: 3001 or 3011 or 5001; honors candidate or instr consent; meets CLE req of Social Science Core; meets HON req of Honors; 4 cr
Instructor: Gundel, Jeanette K
See course description for Ling 3001
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week
Grade: 25% final exam, 30% quizzes, 45% problem solving

Ling 3051H Honors: Thesis
(Sec 001); prereq—Linguistics honors candidate; meets HON req of Honors; 3 cr
Instructor: STAFF
Independent research and writing of honors BA thesis, under the guidance of a faculty member selected according to student's topic. Details of work are determined in consultation with faculty advisor. Target audience: Linguistics majors in CLA Honors Program
Class time: 100% independent research, writing
Grade: 100% , Research progress as determined by faculty advisor

Ling 3052H Honors: Thesis
(Sec 001); prereq—3051; meets HON req of Honors; 3 cr
Instructor: STAFF
A continuation of Ling 3051H, with emphasis on writing final version of thesis. Audience: CLA Honors Linguistics majors.
Class time: 100% independent research, writing
Grade: 100% written reports/papers

Ling 3101W Languages of the World
(Sec 001); prereq—3001 or 3011 or instr consent; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Stenson, Nancy J
This course introduces students to the principles of genetic and typological classification of language and to the study of linguistic universals. It will survey the range of languages and language families of the world and some of the prominent characteristics of selected families and languages will be discussed in detail. Students will also have an opportunity to do individual research on a language family of their choice. Target audience is undergraduate majors and non-majors with an interest in language diversity through the world

Class time: 70% lecture, 30% discussion
Work load: 50 pages of reading per week, 20-25 pages of writing per semester, 2 exams, 1 papers, 6 to 8 problem-solving assignments
Grade: 20% mid-semester exam(s), 25% final exam, 30% written reports/papers, 25% problem solving
Exam format: Multiple choice, short answer

Ling 4901W Senior Project

(Sec 001); S-N only; prereq—Ling major; meets CLE req of Writing Intensive; 1 cr
Instructor: STAFF
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.
Class time: 100% Independent research and writing.
Work load: Varies with project
Grade: 100% written reports/papers
Exam format: None

Ling 5001 Introduction to Linguistics

(Sec 001); Credit will not be granted if credit has been received for: LING 3001, LING 3001H, LING 3011; prereq—=3001, =3011; grad or instr consent; 4 cr
Instructor: Gundel, Jeanette K
Linguistics is the scientific study of language. This course is a general introduction to the various sub-fields of Linguistics. Our emphasis will be on the rules of structural representations found in each of the grammatical components of language: Syntax (phrase and sentence structure), Morphology (word structure), Phonology (sound structure), and Semantics (meaning). Students will learn the essential techniques for describing and analyzing linguistic data through working on examples taken from various languages of the world. the course will be conducted through lectures and discussions. Course requirements include regular assignments, a midterm and a final. Target audience is undergraduate and graduate students in linguistics and related disciplines.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 2 exams, 7 assignments/problem sets
Grade: 30% mid-semester exam(s), 35% final exam, 35% problem solving

Ling 5105 Field Methods in Linguistics I

(Sec 001); prereq—5201, 5302 or instr consent; 4 cr
Instructor: Stenson, Nancy J
Techniques for obtaining and analyzing linguistic data from an unfamiliar language through direct interaction with a native speaker. Class jointly studies a language by elicitation of speech samples and analysis of patterns that emerge. Periodic discussion of progress and individual elicitation sessions are also components of the course. Audience: graduate students and advanced undergraduates with prior coursework in phonetics, phonology and syntax.
Class time: 2% lecture, 18% discussion, 80% Data elicitation and analysis; demonstration
Work load: 30 pages of reading per week, 30 pages of writing per semester, 0 exams, 2 papers, Weekly summaries of work progress, data analysis
Grade: 75% written reports/papers, 25% class participation

Ling 5202 Syntactic Theory

(Sec 001); prereq—5201; 3 cr
Instructor: Soh, Hooi Ling
This course in concerned with the concepts and principles which have been of central significance in the recent development of syntactic theory, with special focus on the "Government and Binding" (GB)/"Principles and Parameters" (P&P) approach and the Minimalist Program. The course will be conducted through lectures and discussions. Course requirements include regular assignments, a mid-term, a final and a paper. Target audience is undergraduate and graduate students in linguistics and related disciplines.
Class time: 80% lecture, 20% discussion
Work load: 30 pages of reading per week, 2 exams, 1 papers, Seven assignments/problem sets
Grade: 25% mid-semester exam(s), 25% final exam, 20% written reports/papers, 5% in-class presentations, 25% problem solving
Exam format: Problem solving and short answers

Ling 5205 Semantics

(Sec 001); prereq—5202 or instr consent; 3 cr
Instructor: Kac, Michael B
Consult with instructor before enrolling.
Class time: 100% lecture
Work load: 15 pages of reading per week
Grade: 33% final exam, 67% problem solving
Exam format: Essay

Ling 5505 Introduction to Second Language Acquisition

(Sec 001); prereq—3001 or 3011 or 5001, a course on phonological and grammatical structure of a language; 3 cr
Instructor: Tarone, Elaine E **!!CLA Distinguished Teaching Award!!**
The study of second-language acquisition (SLA) involves the observation and description of the language production and comparison of individuals who are attempting to master an additional language. Such students may be native speakers of English who are learning French, Spanish, German or some other language in high schools or universities or native speakers of some world language who are learning English as a second language. Questions which are addressed in this course include: are second languages acquired in systematic stages? is learner language systematic and describable by rule? does learner language obey language universals? what sort of influence does the native language of the learner have on the acquisition of the second language? in performing communicative tasks of various kinds, what sorts of second language structures are practiced and acquired? is the process of second language acquisition the same for adults and children? The course is intended for students who have already taken at least one course in language structure. Students will read descriptions of research and original research papers, discuss them in class, and write a paper which focuses on one topic in the area.
Class time: 100% discussion
Work load: 20-50 pages of reading per week, 25 pages of writing per semester, 1 exams, 1 papers
Grade: 30% mid-semester exam(s), 60% written reports/papers, 10% class participation
Exam format: essay

Management

3-333 CarlSMgmt, 612-624-5252

Mgmt 4004W Business Policy: Strategy Formulation and Implementation

(Sec 001-004); A-F only; prereq—90 credits, completion of business core courses; 3 cr
Instructor: Fox, Isaac J
Objectives: understanding the key elements of strategy, analysis, options, choice and implementation; understanding the organization's capabilities and strategic fit with its industry and environment; evaluating alternative strategic options recommending and justifying the choice of specific options for organizations faced with uncertainty, ambiguity and complexity; applying the models of strategic analysis at the business and corporate levels; understanding the significance of strategic management and the role of top-level managers in strategy formualation and implementation; understanding and recommending organizational structures designed to successfully implement strategic decisions.While the course will involve some lecture/seminar discussion of concepts, the main learning will occur through the in-class analysis of case studies and written case memos. This is a four-credit, senior-level, capstone course. The course prerequisites state that students must have had all of the undergraduate core courses in business. This class will be taught at a level that assumes that everyone has taken all of the required courses.
Class time: 25% lecture, 75% discussion
Work load: 60 pages of reading per week, 20 pages of writing per semester, 2 papers, 2 quizzes; 1 group paper
Grade: 35% quizzes, 10% class participation, 25% Case memos; 30% Group projects
Exam format: Essay
Course URL: www.csom.umn.edu/classnet.htm

Manufacturing Systems

310 WBOB 612-624-5747

MS 5107 Simulation of Manufacturing Systems
(Sec 001); A-F only; prereq—MS grad student, instr consent; 1 cr
Instructor: Taaffe, Michael R
Using integrated simulation/animation environment to create, analyze and evaluate realistic models for various manufacturing, assembly and material handling systems. Experimental design for simulation. Random number generation, selecting input distributions, evaluating simulation output. Limited to Manufacturing Systems students only.
Class time: 60% lecture, 40% laboratory
Work load: 1 exams, 1 papers
Grade: 25% final exam, 75% lab work

Materials Science

151 Amundson Hall 612-625-1313

MatS 2001 Introduction to the Science of Engineering Materials
(Sec 001); max crs 4; prereq—2nd year IT; no credit for MatS majors; 3 cr
Instructor: Leighton, Christopher
Introduction to the structure-property relationships of engineering materials. Atomic structure and bonding; crystal structures; diffraction and crystallography; imperfections in solids; Diffusion; strength of materials and strengthening mechanisms; phase transformations; heat treatment and control of microstructures; materials selection and design. Structure and properties of metals, ceramics, polymers, and composites. Laboratory experiments will deal with material strength, creep, fatigue, heat treatment, elasticity, and fracture. Text: W. D. Callister, Jr., Materials Science and Engineering, An Introduction, 5th Ed. (Wiley 1999). Lectures will take place three times weekly and will be taught primarily an the chalkboard and with the use of an overhead projector. There are several demonstrations through the duration of the course. Occasionally hand-outs will be used. The first few minutes will be spent making announcements relevant to the whole class followed by a short recap of the previous lecture. Questions are welcome at any point. The course may be taken with or without a lab class. Mechanical engineering students are required to take the lab. The lab experiments will total 6 and are all based on mechanical properties.
Class time: 50% lecture, 50% laboratory, 100% Lecture if Lab isn't chosen.
Work load: 10—15 pages of reading per week, 4 or 5 working problems per week
Grade: 40% mid-semester exam(s), 30% final exam, 15% lab work, 15% problem solving
Exam format: Mixed problems/short answers

MatS 2001 Introduction to the Science of Engineering Materials
(Sec 002); max crs 4; prereq—2nd year IT; no credit for MatS majors; 3-4 cr
Instructor: Leighton, Christopher
Introduction to the structure-property relationships of engineering materials. Atomic structure and bonding; crystal structures; diffraction and crystallography; imperfections in solids; Diffusion; strength of materials and strengthening mechanisms; phase transformations; heat treatment and control of microstructures; materials selection and design. Structure and properties of metals, ceramics, polymers, and composites. Laboratory experiments will deal with material strength, creep, fatigue, heat treatment, elasticity, and fracture. Text: W. D. Callister, Jr., Materials Science and Engineering, An Introduction, 5th Ed. (Wiley 1999). Lectures will take place three times weekly and will be taught primarily an the chalkboard and with the use of an overhead projector. There are several demonstrations through the duration of the course. Occasionally hand-outs will be used. The first few minutes will be spent making announcements relevant to the whole class followed by a short recap of the previous lecture. Questions are welcome at any point. The course may be taken with or without a lab class. Mechanical engineering students are required to take the lab. The lab experiments will total 6 and are all based on mechanical properties.
Class time: 50% lecture, 50% laboratory, 100% Lecture if Lab isn't chosen.
Work load: 10—15 pages of reading per week, 4 or 5 working problems per week
Grade: 40% mid-semester exam(s), 30% final exam, 15% lab work, 15% problem solving
Exam format: Mixed problems/short answers

MatS 3011 Introduction to Materials Science and Engineering
(Sec 001); prereq—Chem 1021, Math 1272 or 1372, Phys 1302; 3 cr
Instructor: Chelikowsky, James R
Builds progressively from electrons to atoms to crystal structures. Defects, x-ray diffraction, phase diagrams, and microstructure as a basis for understanding mechanical properties and electronic properties; specific materials covered include metals, polymers, ceramics, semiconductors and composites. This course will be web enhanced but the URL is not yet available.
Class time: 75% lecture, 25% discussion
Work load: 30 pages of reading per week, 3 exams, 1 problem set per week
Grade: 45% mid-semester exam(s), 35% final exam, 20% problem solving
Exam format: problem solving

MatS 3041 Industrial Assignment I
(Sec 001); A-F only; prereq—MatS upper div, completion of required courses in MatS program through fall sem of 3rd yr, GPA of at least 2.80, regis in co-op program; 2 cr
Instructor: STAFF
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.
Class time: 100% On-the-job training
Grade: 100% written reports/papers

MatS 4041 Industrial Assignment II
(Sec 001); Graded; prereq—3041, completion of required courses in MatS program through fall sem of 4th yr, GPA of at least 2.80, registration in co-op program; 2 cr
Instructor: STAFF
MatS 4041. Industrial Assignment II (2 cr., regis in MatS co-op program, completion of required courses in MatS program through Fall semester/yr 4) Second industrial work assignment in MatS co-op program. Application of Materials Science principles to the solution of engineering design problems in an industrial work environment. Evaluation based on formal written report emphasizing design issues derived from work assignment.
Class time: 100% On-the-job training
Grade: 100% written reports/papers

MatS 4212 Ceramics
(Sec 001); prereq—[Grade of at least C in 3011, [MatS or ChEn] sr] or instr consent; 3 cr
Instructor: Carter, C Barry **!!Endowed Chair, 3M Heltzer/Multidisc!!**
Undergraduate seniors in Materials Science, plus graduate students in 1st or 2nd year. The course textbook will probably be Kingery, "Introduction to Ceramics", with notes from the professor. Students must have a background in crystallography and crystal lattice defects at the level of MatS 3012.
Class time: 100% lecture
Work load: 40 pages of reading per week, 4 pages of writing per semester, 4 exams
Grade: 30% mid-semester exam(s), 45% final exam, 5% special projects, 20% quizzes
Exam format: specific problems

MatS 4214 Polymers
(Sec 001); prereq—[Grade of at least C in 3011, [MatS or ChEn] sr] or instr consent; 3 cr
Instructor: Bates, Frank S **!!Geo Taylor/IT Alumni Soc Award, Distinguished Research!!**
Polymer synthesis, characterization, structure property relations. Polymerization types: free radial, 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.
Class time: 95% lecture, 5% discussion
Work load: 30 pages of reading per week, 3 exams
Grade: 40% mid-semester exam(s), 35% final exam, 25% problem solving
Course URL: www.cems.umn.edu/COURSES/mats4214

MatS 4591 Independent Study in Materials Science
(Sec 001); max crs 12; 12 repeats allowed; prereq—Upper div mat sci; 1-3 cr
Instructor: STAFF
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
(Sec 001); max crs 12; 12 repeats allowed; prereq—upper div MatS; 1-4 cr
Instructor: STAFF
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
(Sec 001); max crs 12; 12 repeats allowed; prereq—Upper div mat sci; 1-3 cr
Instructor: STAFF
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 5221 Introduction to Polymer Chemistry
(Sec 001); Credit will not be granted if credit has been received for: CHEM 5221, CHEM 5221, CHEM 8221, CHEN 5221, MATS 8221; max crs 4; A-F only; prereq—[3501, Chem 2302] or instr consent; 4 cr
Instructor: Hillmyer, Marc Andrew
The goal of this course is to introduce students to polymer chemistry. Emphasis will be placed on synthetic methods; however, we will cover molecular characterization techniques, polymer solution thermodynamics, and polymer properties as well. A more complete treatment of the latter topics will be done in Chem/Mats 8211. Although there are many introductory polymer chemistry texts, I feel that Odian is an excellent reference book for most of the polymerization chemistry we will discuss. Synthetic chemistry is emphasized in Odian, and appropriate reference materials will be announced or distributed for other topics not covered in Odian. Topics in this course will likely include: Condensation Polymerization, Radical Chain Polymerization, Emulsion Polymerization, Ionic Chain Polymerization, Chain Copolymerizations, Ring-opening Polymerizations, Metal-Catalyzed Polymerization, Polymer Transformation Reactions, Polymer Characterization, Polymer Solution Thermodynamics, and Polymer Properties.
Class time: 85% lecture, 10% discussion, 5% Demonstrations
Work load: 25-50 pages of reading per week, 5 pages of writing per semester, 3 exams, 0 papers
Grade: 50% mid-semester exam(s), 20% final exam, 30% problem solving
Exam format: Problems; multiple choice; fill in blanks

Mathematics
127 Vincent Hall; 612-625-2004

Math 4606 Advanced Calculus
(Sec 001); prereq—[2263 or 2374 or 2573], [2283 or 2574 or 3283 or instr consent]; 4 cr
Instructor: STAFF
This course for which single and multivariable differentiable calculus are prerequisites, treats these topics in more depth than they are treated in the prerequisites courses. This depth has both a calculational aspect (for instance, in studying the gamma function) and a theoretical aspect (for instance, when proving that continuous functions and certain discontinuous functions have integrals). The course is designed to serve two types of students: undergraduate juniors and seniors, primarily mathematics majors, and graduate students from outside mathematics. Such graduate students should confirm that their program accepts this 4xxx-level course for graduate-status credit. Math 4606 is not designed to prepare students for 8xxx-level courses requiring an analysis prerequisite. The sequence Math 5615-5616 is designed for that purpose.
Work load: 20 pages of reading per week
Exam format: Problems and proofs

Mathematics Education
145 Peik Hall; 612-625-6372

MthE 5313 Teaching and Learning Mathematics in the Middle School
(Sec 001); prereq—Tchg exper or instr consent; 3 cr
Instructor: STAFF
Mathematics learning, instruction methods, mathematical topics, and assessment procedures appropriate for the middle grades. Examination of newer curricular materials. Illustration of successful instructional techniques. Discussion of the relationship between the nature of the learner and effective instruction.

MthE 5993 Directed Studies in Mathematics Education
(Sec 001); max crs 3; S-N only; prereq—Math ed MEd student, instr consent; 2 cr
Instructor: STAFF
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; 612-625-0705

ME 3041 Industrial Assignment I
(Sec 001); A-F only; prereq—ME upper div, enrolled in ME co-op program; 2 cr
Instructor: Marple, Virgil A
(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.
Class time: 100% On the job training
Work load: Full time work
Grade: 100% written reports/papers

ME 3221 Design and Manufacturing I: Engineering Materials and Manufacturing Processes
(Sec 001); A-F only; prereq—ME upper div, 2011, AEM 3031, CSci 1113, MatS 2001; 4 cr
Instructor: Mantell, Susan C **!!Land Grant Chair, Richard K Nelson/ ME; New Young Investigator Award NSF!!**
Course Objectives: Almost all engineering and engineering management activity will involve some dealing with manufacturing engineers and manufacturing processes. Much of this activity will be asking or answering technical questions about materials, material behavior, material processing and product characteristics. The goals of this course are to provide information about manufacturing processes, a way of considering problems related to material processing and some experience with processes so that manufacturing engineering questions can be understood and answered by the use of fundamental engineering science concepts. This entails the use of many topics covered in the prerequisite courses and provides the opportunity to apply engineering science concepts. The general goal is to provide knowledge so that informed observations can be made about the effects of process parameters on process performance and product quality. This goal is pursued by analyzing various manufacturing processes using existing process models. With successful completion of this course the student should be able to: 1) Identify critical process variables which affect process performance; 2) Select appropriate material property values for use in process analysis; 3) Estimate forces and temperatures in various processes; 4) Develop simple process models; 5) Evaluate process variability and process capabilities.
Class time: 80% lecture, 20% laboratory
Work load: 3 exams, 6 problem sets; 6 labs
Exam format: short problems
Course URL: www.me.umn.edu/courses

ME 4042 Industrial Assignment II
(Sec 001); A-F only; prereq—ME upper div, enrolled in ME co-op program; 2 cr
Instructor: Marple, Virgil A
Industrial work assignment in mechanical engineering co-op program. Evaluation based on student's formal written report covering a technical investigation.
Class time: 100% on the job training
Work load: full-time work
Grade: 100% written reports/papers

ME 4043W Industrial Assignment III
(Sec 001); A-F only; prereq—4042; 4 cr
Instructor: Marple, Virgil A
Solution of system design problems that require development of criteria evaluation of alternatives, and generation of a preliminary design. Final written report emphasizes design communication and describes design decision process, analysis and final recommendations.
Class time: 100% on the job training
Work load: full-time work
Grade: 100% written reports/papers

ME 4131W Thermal Environmental Engineering Laboratory
(Sec 001); A-F only; prereq—ME upper div or grad student, 3322 or 3233; meets CLE req of Writing Intensive; 4 cr
Instructors: Kuehn, Thomas Howard; Ramsey, James W **!!Geo Taylor/ IT Alumni Soc Award, Distinguished Service!!**
Students conduct experiments in three areas: air handling systems, refrigeration systems, and active solar energy systems. Measurements are performed on heating and cooling coils, particulate air filters, fans, a walk-in cooler, a water chiller, solar energy instrumentation and flat plate solar collectors. The course is targeted toward senior undergraduate engineering students.
Class time: 25% lecture, 75% laboratory
Work load: 10 pages of reading per week, 200 pages of writing per semester, Technical reports.
Grade: 90% written reports/papers, 5% quizzes, 5% class participation

ME 4231 Motion Control Laboratory
(Sec 001); A-F only; prereq—3031, 3281, ME upper div; 4 cr
Instructor: Nelson, Bradley J
Students in the Motion Control Laboratory first learn (or review) the C programming language in order to write PC-based software to communicate with multi-purpose signal input-ouput hardware. The students then design and implement digital filters, system frequency response tests, closed-loop position and velocity motion control of a DC servomotor, and PID position control of a DC servomotor. Students learn relay-ladder-logic and program programmable logic controllers. Electromechanical system models, actuators, sensors, signal I/O, and special topics in motion control are also studied.
Class time: 30% lecture, 70% laboratory
Work load: 15 pages of reading per week, 1 exams, 10 labs
Grade: 20% final exam, 80% lab work
Exam format: Oral exam
Course URL: www.me.umn.edu/courses/me4231

ME 5103 Thermal Environmental Engineering
(Sec 001); A-F only; prereq—IT upper div or grad, 3322 or 3323; 4 cr
Instructor: Kuehn, Thomas Howard
This class is an applied thermodynamics and heat transfer course dealing with the fundamentals of Heating, Ventilating, and air-conditioning (HVAC). The topics covered include thermodynamic properties of moist air, psychrometric charts, HVAC systems, human thermal comfort, solar energy, indoor air quality, heating and cooling loads in buildings, and energy estimating for buildings.
Class time: 90% lecture, 10% discussion
Work load: 40 pages of reading per week, 3 exams
Grade: 30% mid-semester exam(s), 40% final exam, 30% quizzes

ME 5446 Introduction to Combustion
(Sec 001); A-F only; prereq—IT upper div or grad student, 3321, 3322; 4 cr
Instructor: Zachariah, Michael R
Please see Course Web Page
Class time: 85% lecture, 5% discussion, 10% Computer assignments
Work load: 30 pages of reading per week, 3 exams
Grade: 50% mid-semester exam(s), 25% final exam, 25% problem solving
Exam format: Multiple choice
Course URL: www.mc.umn.edu/courses/me5446/index.html

Medical Technology
15-170 Phillips Wangensteen Bldg; 612-625-9490

MedT 4082 Applied Clinical Chemistry
(Sec 001); S-N only; prereq—4310, 4311, 4320, 4321; 3 cr
Instructor: STAFF
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 recoreds, 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 dur9nig 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 audienc: medical technology students after they have completed their senior medical technology courses. Course is scheduled at various clinical/hospital sites.
Class time: 100% laboratory
Work load: 40 hour week practical experience
Grade: 5% in-class presentations, 95% lab work

MedT 4088 Applied Diagnostic Microbiology
(Sec 001); S-N only; prereq—4100, 4102; 2 cr
Instructor: Wells, Carol Lee
Upon completion of the rotation, the student will be able to: Process specimens with high degree of accuracy; Perform and interpret Gram smears; Recognize most bacteria by their colonial morphology (size, color, texture, hemolysis, topography, order, etc.); Identify most bacteria encountered in the clinical laboratory by utilizing appropraite biochemical tests; Process blood cultures; Describe the methods and importance of quality control; Develop an understanding of several specialized procedures; Discuss the methods used in antibiotic procedures; Demonstrate proper specimen selection, collection and transport, and perform techniques used in the isolation, identification and susceptibility testing of anarobes. Target audience: Medical technology students who have completed their senior year. The rotation is scheduled at various hospital/clinical sites.
Class time: 100% laboratory
Work load: 40 hour week practical experience.
Grade: 5% in-class presentations, 95% lab work

Medieval Studies
131 Nolte Center; 612-626-0805

MeSt 3610 Topics in Medieval Studies
(Sec 004); max crs 24; 8 repeats allowed; prereq—credit will not be granted if credit received for: EngL 3110; 3 cr
Instructor: Ragnow, Marguerite
Introduction to Medievel History: This course is an introductory survey of the Middle Ages, ca. 350-1500, designed for upper-division undergraduates. In addition to a textbook, which will provide historical narrative, students will be assigned primary sources—writings from the Middle Ages. Lectures and assignments will target topics such as food and feasting, castles and fortifications, technology and science, music and literature, religion and philosophy, and medieval life in general, as well as major events (such as the Norman Conquest, the Reconquista, the Black Death) and important people (such as Charlemagne, Eleanor of Aquitaine, Pope Innocent III, St. Francis, and others). Students will have the opportunity to read different types of historical sources, including sagas, chronicles, letters, and charters, and to learn how these are used by historians to understand the medieval period. No previous knowledge of the Middle Ages is required.
Class time: 60% lecture, 20% discussion, 20% class exercises, films, music, etc.
Work load: 50 pages of reading per week, 7-10 pages of writing per semester, 2 exams, 1 papers
Grade: 25% mid-semester exam(s), 35% final exam, 30% written reports/ papers, 5% quizzes, 5% class participation
Exam format: combination of essay and multiple choice, fill-in

MeSt 3610 Topics in Medieval Studies: Dark Ages Illuminated: Medieval Europe to 1050
(Sec 005); max crs 24; 8 repeats allowed; prereq—credit will not be granted if credit received for: EngL 3110; 3 cr
Instructor: Phillips, William D
This is a course in the development of western Europe and its neighbors in the early Middle Ages. Coverage will include the fall of Rome and the persistence of the Byzantine Empire, the expansion of the Islamic world, and Germanic kingdoms in western Europe. Attention to social and economic developments and the cultural heritage of the early Middle Ages.
Class time: 60% lecture, 40% discussion
Work load: 100 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers, Class discussion
Grade: 30% mid-semester exam(s), 40% final exam, 20% written reports/ papers, 10% class participation
Exam format: Essay and identification

MeSt 3610 Topics in Medieval Studies
(Sec 006, 007, 009); max crs 24; 8 repeats allowed; prereq—credit will not be granted if credit received for: EngL 3110; 3-4 cr
Instructor: Nicholson, Oliver !!UC **Outstanding Teaching Award!!**
This course is an introduction to a formative period in the history of Europe and the Near East. The years 365-500 A.D. saw Christianity taking root as the dominant religion of the Roman Empire, it saw developing relations between Rome and the Persian Empire, it saw Western Europe threatened by warlike horsemen from the steppes of central Asia and invaded by Germanic tribes who came eventually to form the nations of modern Europe. We shall study these historical changes across a wide range of civilizations, from the savvy Huns and their fearsome leader Atilla, the "Scourge of God", to the solemn ceremonial of the early Byzantine court, and the lively city of Constantinople which surrounded it. We shall also consider in detail the writings of the two most influential authors of the period, Augustine's "Confessions" and Boethius's "Consolation of Philosophy". The emphasis of all readings will be on the texts written at the time (in English translation). Everyone will write an essay. This will be history with the people left in. Come and meet folk like Augustine who are far distant in time but with preoccupations that are vividly recognizable now.
Class time: All Lecture and discussion
Work load: 2 exams, 1 papers
Grade: 10% mid-semester exam(s), 40% final exam, 50% written reports/papers
Exam format: Gobbets—passages from ancient authors set for comment. Explanation in Class.

Microbiology

1460 Mayo (Box 196) 612-624-6190

MicB 2022 General Microbiology
(Sec 001); Same as: VPB 2022; prereq—credit will not be granted if credit received for: VPB 2022; Biol 1002 or 1009; 2 cr
Instructor: Bey, Russell F
This course is intended for NON microbiology majors. General microbiology (MicB 2022) is intended for undergraduate students whose programs of study requires an introductory microbiology course as prerequisite for more advanced study or pre-professional students desiring some background knowledge in microbiology. The course uses lecture and some discussion sessions to provide students with an overview of the fundamental principles of microbiology. Some areas covered are bacterial morphology, metabolism, growth and genetics, introduction to recombinant DNA technology, biology of viruses and fungi, control of microorganisms, host-microbe interactions, immunity and the immune system, microorganisms and disease, applied microbiology. A laboratory manual is required for those taking the course with laboratory (MicB 2032).
Class time: 70% lecture, 27% discussion, 3% Review from previous class
Work load: 0-50 pages of reading per week, 3 exams
Grade: 66% mid-semester exam(s), 33% final exam
Exam format: Multiple choice, essay, fill in the blank/essay—depends on class size

MicB 2032 General Microbiology with Laboratory
(Sec 001); Same as: VPB 2032, BIOL 2032; prereq—credit will not be granted if credit received for: 3301 or Biol 2032 or Biol 3301 or VPB 2032; [1009 or Biol 1002], Chem 1022; primarily for non-microbiology majors; 4 cr
Instructor: Bey, Russell F
This course is intended for NON microbiology majors. General microbiology (MicB 2032) is intended for undergraduate students whose programs of study requires an introductory microbiology course as prerequisite for more advanced study or pre-professional students desiring some background knowledge in microbiology. The course uses lecture and some discussion sessions to provide students with an overview of the fundamental principles of microbiology. Some areas covered are bacterial metabolism, growth and genetics, biology of viruses and fungi, control of microorganisms, host-microbe interactions, immunity and the immune system, microorganisms and disease, applied microbiology. A laboratory manual is required for those taking the course with laboratory.
Class time: 65% lecture, 10% discussion, 22% laboratory, 3% Review from previous class
Work load: 0-50 pages of reading per week, 3 exams
Grade: 50% mid-semester exam(s), 25% final exam, 25% lab work
Exam format: Multiple choice/short answer/essay, fill in the blank/essay—depends on class size

MicB 3301 Biology of Microorganisms
(Sec 001); Same as: BIOL 3301; A-F only; prereq—credit will not be granted if credit received for: 2032, or Biol 2032, or Biol 3301 or VPB 2032; concurrent enrollment Biol 1002 and Chem 2302] or concurrent enrollment [Biol 1009, and [concurrent enrollment Biol 3021 or BioC 3021]]; 5 cr
Instructor: Dworkin, Martin
This course is intended for undergraduate majors in Microbiology or biology. Text is "Microbiology", by Prescott, Harley & Klein. Taxonomy, anatomy, physiology, biochemistry, pathogenesis, immunology, ecology of microbes. Molecular structure in relation to facterial function and disease. Includes laboratory.
Class time: 38% lecture, 62% laboratory
Work load: 20-40 pages of reading per week, 10 pages of writing per semester, 3 exams
Grade: 30% mid-semester exam(s), 30% final exam, 40% lab work
Exam format: multiple choice
Course URL: www.microbiology.med.umn.edu/CoursesF01/syllabus01.html

MicB 4001 Microorganisms and Disease
(Sec 001); prereq—4 cr biol sci, 7 cr chem or instr consent ; not open to microbiology majors; does not count toward 11 upper div cr in biology major; 2 cr
Instructor: Johnson, Russell C
Pathogenic fungi, bacteria and viruses, mechanisms by which they cause disease, host response to infection, disease control, and emerging infectious diseases. The sequence of topics covered is bacteria, structure and function, microbial genetics, anti-microbial agents, host/parasite relationships, non-specific host defenses, acquired immunity, immunological disorders, pathogenic fungi, bacteria and viruses. A slide collection of pathogenic micoorganisms and the diseases they cause is used throughout the course. This course is designed for undergraduate and graduate students who are not microbiology majors.
Class time: 100% lecture
Work load: 20-30 pages of reading per week, 3 exams
Grade: 50% final exam, 50% , 2 exams; 25%/exam
Exam format: multiple choice

MicB 4111 Microbial Physiology and Diversity
(Sec 001); prereq—MicB/VPB 2022 or Biol/MicB/VPB 2032 or Biol/MicB 3301, Biol/BioC 3021 or BioC 4331, 3 cr genetics; 3 cr
Instructors: Mohr, Christian D; Armstrong, Sandra K
Structural and functional organization of Bacteria and Archaea. Energy metabolism utilizing light, inorganic and organic chemicals. Cell morphologies, roles and assembly of surface structures. Growth and survival mechanisms in various extreme environments. Adaptation to changing conditions by development of specialized cells and structures, and altering metabolic patterns.
Class time: 100% lecture
Work load: 25 pages of writing per semester, 4 exams, 2 papers, Two extra papers for Graduate students
Grade: 80% mid-semester exam(s), 20% written reports/papers
Exam format: Multiple choice, essay and short answers

MicB 4131 Immunology
(Sec 001); prereq—MicB/VPB 2022 or Biol/MicB/VPB 2032 or Biol/MicB 3301, Biol/BioC 3021 or BioC 4331; 3 cr
Instructor: Jemmerson, Ronald R
Molecular, genetic, and cellular bases for humoral and cell-mediated immunity; innate immunity; antigen recognition by B and T lymphocytes; interactions between lymphocytes and other cells of the immune system; cytokines; immunoregulation; key aspects of clinical immunology. Students will learn the basic concepts of immunology with some practical applications. This course is targeted toward undergraduate majors in the biological sciences who have previousluy been introduced to biology and biochemistry. The material covered in the course will enable those interested to enroll in more advanced courses in this field. See the Course Website for further information.
Class time: 90% lecture, 10% discussion
Work load: 30-40 pages of reading per week, 4 exams, Six homework assignments turned in, optional quizzes
Grade: 57% mid-semester exam(s), 30% final exam, 12% problem solving, Quizzes can substitute for one of 3 exams, for up to 20%
Exam format: Multiple choice/matching/short answer
Course URL: www.microbiology.med.umn.edu/programs/CoursesF00/MicB4131/index.html

MicB 4215 Advanced Laboratory: Microbial Physiology and Diversity
(Sec 001); A-F only; prereq—4111 or concurrent enrollment 4111; 3 cr
Instructors: Mohr, Christian D; Armstrong, Sandra K
Isolation/cultivation of a wide variety of bacteria. Physiological experiments illustrate characteristic features of microorganisms.
Class time: 100% laboratory
Work load: 40-50 pages of writing per semester, 0 exams, Ten laboratory reports
Grade: 92% written reports/papers, 8% , Laboratory performance and final oral report

Middle Eastern Languages and Cultures
214 Nolte Center; 612-624-3331

MELC 3531 Central Asian Culture
(Sec 001); Same as: CAS 3531; prereq—credit will not be granted if credit received for: CAS 3511; meets CLE req of International Perspect Theme; 3 cr
Instructor: Bashiri, Iraj **!!CLA Distinguished Teaching Award!!**
This course focuses on the cultures of greater Central Asia, including the republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, as well as the Islamic republics of Afghanistan and Iran. The course explores the region's nomadic and sedentary lifestyles, the impact of Zoroastrianism, Islam, and Communism on the diverse populations of the area over time, and explores the dynamics of the political, economic, and ethnic interrelationships that distinguish each country.
Class time: 70% lecture, 20% discussion, 10% Video tapes
Work load: 50 pages of reading per week, 20 pages of writing per semester, 4 exams, 1 papers
Grade: 15% mid-semester exam(s), 15% final exam, 30% written reports/papers, 10% special projects, 20% quizzes, 7% class participation, 3% , Attendance
Exam format: Essay
Course URL: www.iles.umn.edu/faculty/bashiri/iraj.html

MELC 3543 Arabs Under Mamluks and Ottomans: 1300-1920
(Sec 001); Same as: ARAB 5543, ARAB 3543, HIST 3543; prereq—credit will not be granted if credit received for: Arab 3543, Hist 3543; meets CLE req of Historical Perspective Core; meets CLE req of International Perspect Theme; 3 cr
Instructor: Farah, Caesar Elie
The course is designed for upper division students and presumes knowledge of the earlier Islamic period. Specifically, it commences with the rise of the Mamluks to power in Egypt, their successful checking of the Mongol invasions, eliminating the remnants of the Crusader states, confrontation with the Ottomans which ended with the demise of their rule. We then focus on Ottoman rule over the Arab provinces from 1517 until the end of the Ottoman Empire. Emphasis is on the Fertile Crescent provinces and the Nile Valley. Questions to be addressed: causes of the conquest, how the Ottomans re-ordered the provinces, confronting foreign powers and their encroachments, administrative changes introduced—success and failure, challenges by would-be dynasts and their suppression, consequences of Western imperial rivalries, role of tribalism in the Iraqi and Arabian provinces, role of the minorities in inviting foreign intervention, attempts at modernization and reform, advent of young Turks to power and the failure of their policies towards the Arabs culminating in the Arab Revolt which ended the Ottoman imperium. For the Mamluk period, we shall use selections from Hitti's "History of the Arabs"; for the Ottoman period, Holt's "Egypt and the Fertile Crescent Under Ottoman Rule" will be the main text.
Class time: 60% lecture, 30% discussion, 10% presentations by students
Work load: 30 pages of reading per week, 8 pages of writing per semester, 2 exams, 1 papers
Grade: 25% mid-semester exam(s), 35% final exam, 10% written reports/papers, 5% quizzes, 10% in-class presentations, 15% , attendance

MELC 3601 Fiction of Iran and Central Asia in Translation
(Sec 001); Same as: CAS 3601; prereq—credit will not be granted if credit received for: 5601, CAS 3601; meets CLE req of International Perspect Theme; meets CLE req of Literature Core; 3 cr
Instructor: Bashiri, Iraj **!!CLA Distinguished Teaching Award!!**
Although prose fiction was introduced in Iran and Central Asia in the 1920's, its background and development stand in contrast. A settled people, Iranians are subjected to Westernization while the Central Asians, originally nomadic, are forced to settle and be Sovietized. Similarly, the shared Islamic heritage of the region is strained by outside influence. In Iran, Islamic culture takes second place to nationalism while, in Central Asia, atheism displaces Islam. These clashes inspire Iranian and Soviet authors to contribute insightful accounts of their peoples' struggles. Some authors use symbolism while others prefer the direct approach of realist fiction. The course examines the social, political, and ideological dynamics of both regions; it evaluates the effects of Westernization on Iran and of Sovietization on Central Asia. Authors include: (Iran)—Jamalzadeh, Hedayat, Al-i Ahmad, Amir Shahi, Mirsadeghi, Behrangi; (Central Asia)—Aini, Auezov, Kerbabayev, Aibek, Aitmatov. Stories include: (Iran) "Dash Akol", "Stray Dog", "Blind Owl", "A Land Like Paradise", "Warm South", "Little Black Fish", "Black Tulip"; (Central Asia)—"Fierce Gray", "Intersection", "Jamila", "Farewell Gyulsary!", "To Have and to Lose", "Piebald Dog Running Along the Shore".
Class time: 70% lecture, 20% discussion, 10% Video tapes
Work load: 50 pages of reading per week, 20 pages of writing per semester, 4 exams, 1 papers, book report
Grade: 10% mid-semester exam(s), 15% final exam, 30% written reports/papers, 20% quizzes, 10% class participation, 15%, 12% book report; 3% attendance
Exam format: Essay
Course URL: www.ilasll.umn.edu/bashiri/iraj.html

MELC 5601 Fiction of Iran and Central Asia in Translation
(Sec 001); Same as: CAS 5601; prereq—credit will not be granted if credit received for: 3601, CAS 5601; meets CLE req of International Perspect Theme; 3 cr
Instructor: Bashiri, Iraj **!!CLA Distinguished Teaching Award!!**
Although prose fiction was introduced in Iran and Central Asia in the 1920's, its background and development stand in contrast. A settled people, Iranians are subjected to Westernization while the Central Asians, originally nomadic, are forced to settle and be Sovietized. Similarly, the shared Islamic heritage of the region is strained by outside influence. In Iran, Islamic culture takes second place to nationalism while, in Central Asia, atheism displaces Islam. These clashes inspire Iranian and Soviet authors to contribute insightful accounts of their peoples' struggles. Some authors use symbolism while others prefer the direct approach of realist fiction. The course examines the social, political, and ideological dynamics of both regions; it evaluates the effects of Westernization on Iran and of Sovietization on Central Asia. Authors include: (Iran)—Jamalzadeh, Hedayat, Al-i Ahmad, Amir Shahi, Mirsadeghi, Behrangi; (Central Asia)—Aini, Auezov, Kerbabayev, Aibek, Aitmatov. Stories include: (Iran) "Dash Akol", "Stray Dog", "Blind Owl", "A Land Like Paradise", "Warm South", "Little Black Fish", "Black Tulip"; (Central Asia)—"Fierce Gray", "Intersection", "Jamila", "Farewell Gyulsary!", "To Have and to Los, "Piebald Dog Running Along the Shore".
Class time: 70% lecture, 20% discussion, 10% Video tapes
Work load: 60 pages of reading per week, 30 pages of writing per semester, 4 exams, 1 papers, Book report
Grade: 10% mid-semester exam(s), 15% final exam, 30% written reports/papers, 20% quizzes, 10% class participation, 15%, 12% book report; 3% attendance
Exam format: Essay
Course URL: www.ilasll.umn.edu/bashiri/iraj.html

Military Science
110 Armory; 612-624-7590

Mil 0101 Military Science I Leadership Lab
(Sec 001); A-F only; prereq—Enrollment in 1010; 0 cr
Instructor: STAFF
Learn basic skills. Gain insight into the advanced course in order to make an informed decision whether to apply for it. Build self confidence and team-building leadership skills that can be applied throughout life.

Mil 0201 Military Science II Leadership Lab
(Sec 001); A-F only; prereq—Enrollment in 1220; 0 cr
Instructor: STAFF
Learn basic skills. Gain insight into the advanced course in order to make an informed decision whether to apply for it. Build self confidence and team-building skills that can be applied throughout life.

Mil 0301 Military Science III Leadership Lab
(Sec 001); prereq—Enrollment in 3130; 0 cr
Instructor: STAFF
Develop leadership skills necessary for the planning, resourcing, execution and evaluation of various training activities in both classroom and outdoor lab environments. Apply leadership theory and doctrine for small groups.

Mil 0401 Military Science IV Leadership Lab
(Sec 001); prereq—Student must be enrolled in the Advanced Course and associated Military Science class; 0 cr
Instructor: STAFF
Refine instructor skills by developing and presenting instruction in both a lecture and practical exercise format. Develops leadership skills necessary for the planning, resourcing, execution and evaluation of various training activities in both classroom and outdoor lab environments. Apply counseling and motivating techniques. This course is open to Military Science IV Cadets only.
Class time: 100% laboratory
Work load: Planning, Preparing and Rehearsing Instruction
Grade: 33% in-class presentations, 33% class participation, 33% lab work, 1% problem solving

Mil 1005 Military Science III Leadership Lab
(Sec 001); prereq—Enrollment in 3130; 1 cr
Instructor: STAFF
Develop leadership skills necessary for the planning, resourcing, execution and evaluation of various training activities in both classroom and outdoor lab environments. Apply leadership theory and doctrine for small groups.

Mil 1007 Military Science IV Leadership Lab
(Sec 001); prereq—Enrollment in 3140; 1 cr
Instructor: STAFF
Refine instructor skills by developing and presenting instruction in both a lecture and practical exercise format. Develops leadership skills necessary for the planning, resourcing, execution and evaluation of various training activities in both classroom and outdoor lab environments. Apply counseling and motivating techniques.

Mil 3130 Leading Small Organizations I
(Sec 001); prereq—Enrollment in Advanced Course; 3 cr
Instructor: STAFF
Instruction and case studies which builds leadership competencies and military skills in preparation for future responsibilities as army officers. Specific instruction in the principles of war, decision-making processes, planning models, and risk assessment. Advanced leadership instruction focuses on motivational theory, the role and actions of leaders, and organizational communications.

Mil 3140 Leadership Challenges and Goal Setting
(Sec 001); prereq—Enrollment in Advanced Course; 3 cr
Instructor: STAFF
Develop staff skills and learn to work as part of a team. Plan, coordinate and conduct cadet battalion operations and training. Assess organizational effectiveness and develop strategies to improve it. Learn to manage resources and further develop leadership skills. Refine counseling and motivating techniques. Identify and resolve ethical dilemmas as a leader and on the modern battlefield. Refine your understanding of the importance of studying military history. Refine writing and briefing skills.

Mil 3970 Directed Studies
(Sec 001); prereq—dept consent; 3 cr
Instructor: STAFF
A writing intensive independent study course, evaluating the student's research and analysis skills. This course is open to ROTC advanced course students only.
Work load: 30 pages of writing per semester
Grade: 100% written reports/papers

Molecular Veterinary Bioscience

MVB 5594 Directed Research in Molecular Veterinary Biosciences
(Sec 001); max crs 4; 4 repeats allowed; A-F only; prereq—Jr; 1-4 cr
Instructor: STAFF
Laboratory research designed by student and professor to address specific issues in veterinary medicine. Hypothesis testing and scientific thinking are developed through manuscript review and laboratory/science testing. All work is under the guidance of a faculty member.
Class time: 90% laboratory, 10%
Work load: 10 pages of reading per week, specific numbers of hours in lab to be determined by student and professor
Grade: 100% lab work
Exam format: no exam

Mortuary Science

A-275 Mayo (Box 740); 612-624-6464

Mort 3021W Funeral Service Psychology
(Sec 001); A-F only; meets CLE req of Writing Intensive; 3 cr
Instructor: Tibbetts, Steven Patrick
This course is designed to provide an understanding of one's own awareness of death, as well as the grief responses of others who have experienced the death of another person. Literature will be studied to examine history in an attempt to build a background for current thoughts about dying and death; but primarily, current psychological data will be examined, which will help to understand both our individual and societal reactions to death. Prereq of General Psychology course recommended; majors and non-majors.
Class time: 60% lecture, 40% discussion
Work load: 50 pages of reading per week, 25 pages of writing per semester, 3 exams, 3 papers
Grade: 25% mid-semester exam(s), 25% final exam, 50% in-class presentations
Exam format: Multiple choice, matching, essay

Mort 3022W Funeral Service Counseling
(Sec 001); A-F only; meets CLE req of Writing Intensive; 3 cr
Instructor: Tibbetts, Steven Patrick
This is a course about helping people who have suffered the ultimate loss of death. It is also a course about oneself; that is to say, a course which will help each person look at themselves as a helper. The two purposes of the course are: 1) To learn about yourself as a helper; and 2) To learn the necessary skills to be a good counselor. Prereq of General Psychology course recommended; majors and non-majors.
Class time: 60% lecture, 40% discussion
Work load: 60 pages of reading per week, 25 pages of writing per semester, 3 exams, 3 papers
Grade: 25% mid-semester exam(s), 25% final exam, 50% in-class presentations
Exam format: Multiple choice, true/false, matching, essay

Music

100 Ferguson Hall; 612-624-5740

Mus 1001 Fundamentals of Music
(Sec 001, 007); prereq—For non-music majors; meets CLE req of Other Humanities Core; 3 cr
Instructor: STAFF
An introduction to the musical notation and structure of Western music. This course is intended for non-music majors and will cover the following topics: rhythm, pitch, meter, keyboard, major/minor scales, intervals, chords, and harmony. Course work is participatory and includes singing, playing instruments, clapping and aural perception. Grades are determined from assignments, quizzes, a paper and mid-term and final exams. Class time includes two lectures and one lab per week. The syllabus is on the class web. (Note: this class includes four lab sections: 002, 003, 004, and 005.)
Class time: 66% lecture, 33% laboratory
Work load: 8 pages of reading per week, 2 pages of writing per semester, 2 exams, 10 quizzes and 10 assignments
Grade: 10% mid-semester exam(s), 15% final exam, 10% written reports/papers, 20% quizzes, 20% lab work, 25% problem solving
Exam format: Multiple choice and written answer; written and aural examination

Mus 1001 Fundamentals of Music
(Sec 006); prereq—For non-music majors; meets CLE req of Other Humanities Core; 3 cr
Instructor: Damschroder, David A
An introduction to the musical notation and structure of Western music. This course is intended for non-music majors and will cover the following topics: pitch, rhythm, meter, keyboard, major/minor scales, intervals, chords, and harmony. Course work is participatory and includes singing, playing piano, clapping, and aural perception. Grades are determined from assignments, quizzes, a paper, tests, and a final exam. Class meets one evening per week, with open lab time in the keyboard lab both before and after class. This class will not be web enhanced. A CD-ROM comes with the textbook.
Class time: 40% lecture, 40% discussion, 20% laboratory
Work load: 10 pages of reading per week, 5 pages of writing per semester, 3 exams, 1 papers, Quizzes, homework assignments, lab assignments

Grade: 20% mid-semester exam(s), 20% final exam, 10% written reports/papers, 20% quizzes, 10% class participation, 10% lab work, 10% problem solving
Exam format: Problem-solving.

Mus 1051 Class Piano for Nonmusic Majors I
(Sec 001-011); meets CLE req of Other Humanities Core; 2 cr
Instructor: STAFF
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: "Keyboard Fundamentals", 3rd ed. by Lyke, Edwards, & Haydon. Mus1051 covers Chapters 1-4, including intervals up to an octave, major key signatures, major 5-finger patterns and root position triads, major scales, harmonizing with I and V, minor scales (natural and harmonic), minor 5-finger patterns and triads, and triads on scale degrees.
Class time: 10% lecture, 90% laboratory
Work load: 1 hour practice daily
Grade: 20% mid-semester exam(s), 25% final exam, 30% quizzes, 20% class participation, 5% , written project
Exam format: Individual keyboard performance (plus some written theory).

Mus 1151 Piano: Class Lessons I
(Sec 001-005); A-F only; prereq—Fr music major with limited keyboard background, dept consent; 2 cr
Instructor: STAFF
Mus 1151 Piano: Class Lessons I. 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. 1151 covers chapters 1-4. Students with previous piano background should contact the School of Music for information regarding placement or credit by exam.
Class time: 10% lecture, 90% laboratory
Work load: 1 hour practice daily
Grade: 25% mid-semester exam(s), 25% final exam, 30% quizzes, 20% class participation
Exam format: individual keyboard performance

Mus 1155 Keyboard Skills I
(Sec 001, 002); A-F only; prereq—[Keyboard major or music major with extensive keyboard background], dept consent; 2 cr
Instructor: Shockley, Rebecca P
Mus 1155 Keyboard Skills I. A functional piano skills course for freshman keyboard majors and other music majors with extensive keyboard background, to be taken with freshman music theory. Emphasis is on reading, transposing, harmonizing, improvising and playing by ear, along with keyboard theory, technique, and music learning skills. Taught in an electronic piano lab. (Advanced non-keyboard majors may substitute one semester of Mus 1521 for Mus 1151-2 with instructor permission.) Text: Harmonization at the Piano (6th ed.) by Frackenpohl plus supplementary materials. 1521 covers chapters 1-6 plus 3-part vocal scores.
Class time: 10% lecture, 90% laboratory
Work load: 1 hour practice daily
Grade: 30% mid-semester exam(s), 30% final exam, 30% quizzes, 10% class participation
Exam format: individual keyboard performance

Mus 1471 Guitar: Class Lessons I
(Sec 001-005); A-F only; 2 cr
Instructor: STAFF
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.
Class time: 40% lecture, 60% in-class performance
Work load: 3 exams, 3 to 4 hours individual practice per week
Grade: 25% mid-semester exam(s), 25% final exam, 50% class participation
Exam format: performance

Mus 1501 Foundations of Musical Theory: Analysis and Ear-Training I
(Sec 001, 002); A-F only; prereq—[Music major or instr consent], permission number; 3 cr
Instructor: STAFF
The first semester of a four-semester sequence of courses devoted to tonal music theory. The focus of these courses is on analysis of music of the eighteenth and nineteenth centuries, part-writing (learning how to write music in historical styles), and skills including sight-singing, ear-training, and keyboard performance. Music 1501 is intended primarily for music majors and music minors. Non-majors generally enroll in Mus 1001 unless they intend to continue in the theory sequence beyond a single term.
Class time: 40% lecture, 40% discussion, 20% laboratory
Work load: 30 pages of reading per week, 10 pages of writing per semester, 3 exams, 1 papers, daily homework assignments; weekly skills assignments

Mus 1801W Music, Society, and Cultures
(Sec 001); A-F only; prereq—[Music major or instr consent], permission number; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
This course, taught by Professor Mirjana Lausevic, is designed to enable the students to understand how other people conceptualize music, how musicians across the globe learn, perform and incorporate music into their personal lives and the social fabric of their communities. The students will learn how musical instruments and human voices are employed to serve particular societal needs, and how musical organization both reflects and shapes cultural values. Using musical case studies from around the world, we will explore differences in aesthetics that stem from different lifestyles and values. Music will be used as a starting point for understanding how different societies operate, how they cope with life and death, how they make sense of daily life and the universe. The course objectives will be accomplished through lectures, lots of listening, some hands-on musical experience, selected readings, assigned concert attendance and video viewing. This course is primarily for undergraduate majors.
Class time: 50% lecture, 25% discussion, 25% workshops, video viewing, concert attendance
Work load: 30 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 1 papers, several short assignments (1-2 pages)
Grade: 30% written reports/papers, 10% special projects, 30% quizzes, 30% class participation
Exam format: quizzes, written reports

Mus 3029 Music in the 20th Century
(Sec 001); Same as: HUM 3029; Mus 3950 Topics: American Popular Music: 1900-1999 replaces this course during May Session 2001.; 3 cr
Instructor: Jackson, Donna Cardamo
This course is designed expressly for undergraduate non-music majors. It introduces the themes that have shaped European/American music in the 20th century, while encouraging active involvement in listening and developing an awareness of concurrent developments in the visual arts, dance, and literature. Emphasis is placed on cultural contexts, linking composers to other creative figures, e.g., Debussy/Mallarme, Stravinsky/Diagilev, Satie/Cocteau, Crumb/Lorca. Influences on composers such as the effects of war and politics, the Great Depression, advancing technology, and current social issues (AIDS and the Holocaust) are treated through thematically correlated reading and listening assignments. Videotapes of historically significant works introduce concepts of modernism and post-modernism. This course aims to explore a rich diversity of music from a global perspective, to address the influence of ethnic and popular music on western composers, and to explore creative fusions in art and rock music. Topics to be covered are: the origins of modernism in Paris and Vienna at the turn of the century, experimental traditions and jazz in the 1920s; American music during the Harlem Renaissance and Great Depression; music and politics in Russia and Eastern Europe; post-war modernism; the anti-establishment generation (rock music and minimalism in the 1960s); the post-modern generation.
Class time: 75% lecture, 25% discussion
Work load: 30-50 pages of reading per week, 5 pages of writing per semester, 2 exams, 1 papers
Grade: 33% mid-semester exam(s), 33% final exam, 33% written reports/papers
Exam format: multiple choice, short answer, essay

Mus 3230 Chorus
(Sec 001-003); max crs 8; 8 repeats allowed; prereq—Choral and/or instrumental music background, audition, instr consent; 1 cr
Instructor: Romey, Kathy Saltzma
Chorus 3230/5230, includes the University Women's Chorus, Men's Chorus, Concert Choir and Choral Union and is open to undergraduate and graduate majors and non-majors. Auditions are held at the beginning of each semester in Ferguson Hall. Information can be obtained by calling the Music School at (612) 624-5056. The choral ensemble provides a basis for understanding vocal music by examining the creative process from the perspective of both the performer and listener. Through the medium of performance, the course explores form and content as shaped by the elements of language, cultural and historical context, and the stylistic development of musical thought and ideas from the Middle Ages through the Twentieth Century. Programming over the course of the year reflects concerts which include sacred and secular literature from the Western European tradition, works of living composers, music which is both unaccompanied and accompanied, and culturally diverse repertoire from within the United States, Canada, South America, Africa, Asia, etc. Projects may also include inter-disciplinary elements such as narration, movement and the visual arts. Concerts include campus performances, convention presentations, touring and collaborations with other colleges, the Minnnesota Orchestra, University faculty and ensembles.
Class time: 80% rehearsal/lecture; 20% performance
Work load: 3-5 rehearsals each week; 2-3 dress rehearsals; 1-3 performances; one observation of outside rehears
Grade: 25% attendance of rehearsals/performances;25% repertoire preparation;25% demonstrated understanding/
Exam format: reaction paper and final performances replace final exam

Mus 3340 Jazz Ensemble
(Sec 001, 002); max crs 8; 8 repeats allowed; A-F only; prereq—Audition, instr consent; 1 cr
Instructor: Sorenson, Dean Patrick
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. All jazz ensembles are academic courses carrying one credit. Upon completing the audition process, you will be assigned to an ensemble and must obtain a "magic number" in order to register. You must register in order to play in a University Jazz Ensemble.
Class time: 100% Rehearsal/performance

Mus 3350 Jazz Combo
(Sec 001-004); max crs 8; 8 repeats allowed; A-F only; prereq—Audition, instr consent; 1 cr
Instructor: STAFF
Jazz combos study a wide range of small group jazz literature. Time is also 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.
Class time: 100% performance/rehearsal

Mus 3410 University Wind Bands
(Sec 001-004); max crs 14; 14 repeats allowed; A-F only; prereq—Audition, instr consent; 1 cr
Instructor: Kirchhoff, Craig James
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.
Class time: rehearsal
Work load: practice and performance
Grade: rehearsal preparation and performance

Mus 3440 Chamber Ensemble
(Sec 001-007); max crs 8; 8 repeats allowed; A-F only; prereq—instr consent; 1 cr
Instructor: STAFF
Each quarter there are a variety of ensembles which are open to students with musical backgrounds, but not limited to music majors. Emphasis is on developing chamber music performance techniques in small groups. Specific offerings change each term and the student should check the Fall Class Schedule for the current listing. For information about faculty coordinators and permission to register, contact staff in 100 Ferguson Hall or call (612) 624-5740. Normal offerings include: classical guitar ensembles, piano ensembles, trombone ensembles, brass ensembles, New Music Ensemble, Gospel Choir.(Note: The section taught by David Baldwin is typically a brass quintet and is intended for undergraduate music majors. The brass quintet repertoire spans a wide range of styles and musical eras from editions of Renaissance madrigals to avant garde music of today to po and show tunes. There is at least one public performance.)
Class time: 100% laboratory
Work load: 1/2-1 hr per week with faculty, 1-2 hrs per week ensemble, 1/2 hr daily practice
Grade: 50% class participation, 50% , performances
Exam format: performance

Mus 3501 Theory and Analysis of Tonal Music III
(Sec 001); A-F only; prereq—1501, 1502, dept consent; 4 cr
Instructor: Damschroder, David A
The third semester of a five 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 3501 is intended primarily for music majors.
Class time: 25% lecture, 50% discussion, 25% laboratory
Work load: 30 pages of reading per week, 10 pages of writing per semester, 3 exams, 0 papers, Daily homework; sight—singing auditions.
Grade: 30% mid-semester exam(s), 30% final exam, 30% problem solving, 10% , Sight—singing evaluations
Exam format: essay

Mus 3501 Theory and Analysis of Tonal Music III
(Sec 002); A-F only; prereq—1501, 1502, dept consent; 3 cr
Instructor: Damschroder, David A
The third semester of a five 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 3501 is intended primarily for music majors.
Class time: 25% lecture, 50% discussion, 25% laboratory
Work load: 30 pages of reading per week, 10 pages of writing per semester, 3 exams, 0 papers, Daily homework; sight—singing auditions.
Grade: 30% mid-semester exam(s), 30% final exam, 30% problem solving, 10% , Sight—singing evaluations
Exam format: essay

Mus 3518 Review of Ear-Training and Sight-Singing
(Sec 001, 002); A-F only; prereq—Theory Placement Exam; 1 cr
Instructor: STAFF
A course intended for transfer and graduate music majors who, based on the Placement Exam for Entering Students, require remediation in ear-training and sight-singing. Mus 3518 covers at a fast pace the ear-training content of Mus 1502 (Theory II) and Mus 3501 (Theory III). After Mus 3518, the sequence continues with Mus 3502 (for students who need both theory and ear-training review for the contents of Theory IV) or Mus 3511 (for students who need only ear-training review for the contents of Theory IV).
Class time: 40% discussion, 50% laboratory, 10% sight-singing auditions
Work load: 10 pages of reading per week, 3 exams
Grade: 20% mid-semester exam(s), 20% final exam, 10% quizzes, 50% , sight-singing auditions
Exam format: dictation

Mus 5101 Piano Pedagogy I
(Sec 001); prereq—8 cr in MusA 1301 or MusA 1401 or instr consent; 2 cr
Instructor: Shockley, Rebecca P
(First semester of a year-long course, offered jointly through day school and University College.) Demonstration and discussion of teaching techniques, methods, and materials for group and individual instruction. Emphasis on the beginning and intermediate levels. Includes observation, reading, discussion, class presentation and hands-on experience. Text: "The Well-Tempered Keyboard Teacher", 2nd ed., by Uszler et al., plus supplementary course packet intended for piano majors or pianists with piano teaching experience. Prereq: two years of college-level applied piano instruction or #.
Class time: 25% lecture, 25% discussion, 25% laboratory, 25% oral reports
Work load: 25 pages of reading per week, 2 exams, 1 papers, 1 oral report, 12 observations 1 paper for grad credit
Grade: 20% mid-semester exam(s), 20% final exam, 20% written reports/papers, 20% in-class presentations, 20% , 12 observations
Exam format: essay

Mus 5150 Body Awareness in Activity: The Alexander Technique for Musicians
(Sec 001, 002); max crs 4; 2 cr
Instructor: STAFF
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 wil include individual "hands-on" mini-lessons each week. Two texts will be used: The Use of the Self, by F. M. Alexander and Indirect Procedures—A Musician's Guide to the Alexander Technique by Pedro de Alcantara. Class discussions will center on assigned readings and each student weill be responsible for two short papers on selected portions of the texts. Open to musicians and non-musicians.
Class time: 10% lecture, 25% discussion, 65% individual work with students
Work load: 40 pages of reading per week, 4 pages of writing per semester, 2 papers
Grade: 100% , attendance

Mus 5230 Chorus
(Sec 001-003); max crs 8; 8 repeats allowed; prereq—Choral and/or instrumental music background; audition, instr consent; 1 cr
Instructor: Romey, Kathy Saltzma
Chorus 3230/5230, includes the University Women's Chorus, Men's Chorus, Concert Choir and Choral Union and is open to undergraduate and graduate majors and non-majors. Auditions are held at the beginning of each semester in Ferguson Hall. Information can be obtained by calling the Music School at (612) 624-5056. The choral ensemble provides a basis for understanding vocal music by examining the creative process from both the perspective of the performer and the listener. Through the medium of performance, the course explores form and content as shaped by the elements of language, cultural and historical context, and the stylistic development of musical thought and ideas from the Middle Ages through the Twentieth Century. Programming over the course of the year reflects concerts which include sacred and secular literature from the Western European tradition, works of living composers, music which is both unaccompanied and accompanied, and culturally diverse repertoire from within the United States, Canada, South America, Africa, Asia, etc. Projects may also include inter-disciplinary elements such as narration, movement and the visual arts. Concerts include campus performances, convention presentations, touring and collaborations with other colleges, the Minnesota Orchestra, University faculty and ensembles.
Class time: 80% rehearsal/lecture; 20% performance
Work load: 3-5 rehearsals each week; 2-3 dress rehearsals; 1-3 performances; one observation of outside rehears
Grade: 25% attendance of rehearsals/performances;25% repertoire preparation;25% demonstrated understanding/
Exam format: reaction paper and final performances replace final exam

Mus 5240 Chamber Singers
(Sec 001); max crs 8; 8 repeats allowed; A-F only; prereq—Audition, instr consent; 1 cr
Instructor: Lancaster, Thomas S
The Chamber Singers is a mixed chorus of 24 voices that perform a broad repertory of choral literature both on and off campus. Each year's repertory includes a cappella music and works with orchestra. The chamber singers perform in the University's annual Bach Festival.
Work load: Daily rehersals M-F, on to three concerts per semester

Mus 5340 Jazz Ensemble
(Sec 001, 002); max crs 6; 6 repeats allowed; A-F only; prereq—audition, instr consent; 1 cr
Instructor: Sorenson, Dean Patrick
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. All jazz ensembles are academic courses carrying one credit. Upon completing the audition process, you will be assigned to an ensemble and must obtain a "magic number" in order to register. You must register in order to play in a University Jazz Ensemble.
Class time: 100% Rehearsal/performance

Mus 5390 Jazz Singers
(Sec 001); max crs 10; 10 repeats allowed; A-F only; prereq—audition, instr consent; 1 cr
Instructor: STAFF
The Jazz Singers is a group of 12-16 members that perform many styles of jazz literature. Much of the music of the jazz singers is accompanied by a rhythm section but some is also acapella. Performances emphasize not only ensemble singing but also soloing and scatting. The jazz singers participate in a broad range of productions, including formal concerts and stage shows.

Mus 5410 University Wind Bands
(Sec 001-004); max crs 8; 8 repeats allowed; A-F only; prereq—audition, instr consent; 1 cr
Instructor: Kirchhoff, Craig James
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.
Class time: rehearsal
Work load: practice and performance
Grade: rehearsal preparation and performance

Mus 5440 Chamber Ensemble
(Sec 001-007); max crs 8; 8 repeats allowed; A-F only; prereq—audition, instr consent; 1 cr
Instructor: STAFF
Each quarter there are a variety of ensembles which are open to students with musical backgrounds, but not limited to music majors. Emphasis is on developing chamber music performance techniques in small groups. Specific offerings change each term and the student should check the Fall Class Schedule for the current listing. For information about faculty coordinators and permission to register, contact staff in 100 Ferguson Hall or call (612) 624-5740. Normal offerings include: classical guitar ensembles, piano ensembles, trombone ensembles, brass ensembles, New Music Ensemble, Gospel Choir.
Class time: 100% laboratory
Work load: 1/2-1hr per week with faculty, 1-2 hrs per week ensemble, 1/2 hr daily practice
Grade: 50% class participation, 50% , performances
Exam format: performance

Mus 5480 University Brass Choir
(Sec 001); max crs 8; 8 repeats allowed; prereq—audition, instr consent; 1 cr
Instructor: Baldwin, David B
The University Brass Choir is an active performing ensemble, performing several times during the Spring Semester at various churches and concert halls in the area. The group has a unique repertoire which spans 500 years from Renaissance music to avant garde music of recent years. The ensemble is usually composed of 14 to 18 undergraduate and graduate students.
Class time: rehearsal
Work load: preparation of music
Grade: class participation

Mus 5490 Percussion Ensemble
(Sec 001); max crs 10; 10 repeats allowed; A-F only; prereq—instr consent; 1 cr
Instructor: Meza, Fernando Arturo
Practice and performance of standard and contemporary compositions for percussion instruments in various combinations.
Class time: 20% lecture, 80% laboratory
Work load: practice time
Grade: 40% in-class presentations, 60% lab work
Exam format: no exams

Mus 5550 Composition
(Sec 001, 002); max crs 8; 4 repeats allowed; A-F only; prereq—3502 or equiv, 3551 or grad, instr consent; 2 cr
Instructor: Lubet, Alex J **!!Morse Alumni Award!!**
Original works in various forms. Development of individual compositional style in a post-tonal idiom. Exploration of a variety of forms, performing forces, and techniques.
Class time: 100% Private lessons.
Work load: Original composition.
Grade: 100% , Composition.

Mus 5561 Orchestration I
(Sec 001); A-F only; prereq—3502; 3 cr
Instructor: Zaimont, Judith Lang
Scoring techniques for ensembles in combination and full orchestra; part one on a year-long sequence. Score study of representative works, mostly from the 20th century.
Work load: 1 exams, 11 papers, 11 weekly orchestration assignments; 2 major projects for ensembles of varying sizes
Grade: 30% final exam, 30% written reports/papers, 40% special projects
Exam format: specific answer

Music Education
100 Ferguson Hall, 612-624-5740

MuEd 1801 Introduction to Music Therapy
(Sec 001); A-F only; 2 cr
Instructor: Furman, Charles E
Methods, materials, and applications of music therapy in various clinical settings with emphasis on field observation. (2 credits) This course is for students in the music therapy program, as well as students from other areas who are interested in discovering about the field of music therapy. Objectives: To identify and explore current issues in the profession of music therapy, to develop a working definition of music therapy, and to become aware of basic principles, theories and models of music therapy through literature review and observation.
Class time: 70% lecture, 20% discussion, 10% guest speakers
Work load: 45 pages of reading per week, 15 pages of writing per semester, 7 papers, 1 field visit during the semester
Grade: 60% written reports/papers, 10% special projects, 30% quizzes

MuEd 3301 Teaching Elementary Vocal and General Music
(Sec 001); A-F only; prereq—Music ed major; 3 cr
Instructor: Addo, Akosua O
This course is designed to prepare pre-service teachers with materials and strategies to plan and implement multi-cultural music instruction for elementary school children in sequential progression. Students enrolled in this course must have completed the course sequence for music theory, music history and Mus 1401, Piano skills.
Class time: 20% lecture, 40% discussion, 40% laboratory
Work load: projects
Grade: 20% final exam, 20% special projects, 20% in-class presentations, 10% class participation, 30% problem solving
Exam format: Multiple choice and essay
Course URL: webet3.umn.edu/script/mued3301

MuEd 3800 Introduction to Clinical Music Therapy Practice
(Sec 001); A-F only; prereq—Music therapy major or instr consent; 4 cr
Instructor: Furman, Charles E
Introduction to lab and field studies of music therapy and music behavior. Pre-internship experiences in health, welfare, recreational, and educational settings. (4 credits) This class is open to undergraduates in the music therapy program, graduates in the music therapy equivalencey program, and in special circumstances with the course director's permission.
Class time: 33% lecture, 33% discussion, 33% session simulations
Work load: 30 pages of reading per week, 12 pages of writing per semester, 4 papers, +2 client journals each week and 2 field visits each week
Grade: 33% academic readings and assignments; 33% laboratory simulations; group leading; jury; 33% field ex

MuEd 3805 Applications of Music Therapy II: Music Therapy in Long Term Care and Psychiatric Care
(Sec 001); A-F only; prereq—Music therapy major or instr consent; 4 cr
Instructor: Furman, Charles E
Methods and materials for music therapy in school and hospital settings; designing and implementing programs for severely and moderately handicapped children and adults. (4 credits)
Class time: 33% lecture, 33% discussion, 33% session simulations
Work load: 3 pages of reading per week, 20 pages of writing per semester, 10 papers, + 2 client journals each week and 2 field visits each week
Grade: 33% academic readings and assignments; 33% laboratory simulations; group leading; jury; 33% field ex

MuEd 3855 Music Therapy Internship
(Sec 001); S-N only; prereq—Music therapy major, instr consent; 12 cr
Instructor: Furman, Charles E
A six month internship is required once all coursework is completed. This can be completed in Minnesota, or other sites listed on the AMTA website. This involves working with a registered music thearpist 40 hours a week, and completing assignments that are required by the University of Minnesota music thearpy program as well as those required by the individual site. Applications for internships can be sent a year before a candidate is ready to attend an internship, and they are competitive. Stipends and housing availability vary from site to site. The site also has information on internships available. The internship must be completed before a student can sit for the board certification examination.
Class time: 100% of time is spent at a facility working with a registered music thearpist
Work load: 30 pages of writing + assignments assigned by clinical training director; 10 papers + pages assigned
Grade: 100% , 100% of grade is determined by the clinical training director and the head of the music therapy prog

MuEd 5011 Music in the Elementary Classroom Curriculum
(Sec 001, 002); prereq—Mus 1001, grad elem ed major; 2 cr
Instructor: STAFF
This course is designed to prepare pre-service teachers with materials and strategies to plan and integrate multi-cultural music instruction for elementary school children. Students will need a tuning fork = A, soprano recorder with Baroque-English fingering and one blank VHS videotape. Students will sing, play instruments, sight read and conduct.
Class time: 20% lecture, 40% discussion, 40% laboratory
Work load: 20 pages of reading per week, 50 pages of writing per semester, 1 exams
Grade: 25% final exam, 15% written reports/papers, 30% special projects, 20% in-class presentations, 10% class participation
Exam format: Multiple choice and essay

MuEd 5669 Psychology of Music
(Sec 001); A-F only; prereq—Psy 1001 or Psy 3604 or instr consent; 3 cr
Instructor: Haack, Paul A
The Psychology of Music will help you become familiar with basic psychological and psychoacoustical processes involved in human behavior. You should become proficient in understanding and describing sociocultural effects and influences on musical behavior, music acoustics, music perception/cognition, aesthetic considerations, affect, preference, performance, ability, and the influence of music on human behavior, as well as basic research methodologies and problems relating to the psychology of music.
Class time: 40% lecture, 40% discussion, 10% laboratory, 10% field trips , films
Work load: 25 pages of reading per week, 13 pages of writing per semester, 5 exams, 5 brief research reports
Grade: 10% final exam, 25% written reports/papers, 15% special projects, 40% quizzes, 10% lab work, 4 quizzes
Exam format: objective and short essay

Natural Resources, Environmental Studies
235 NatResAd, 612-624-1234

NRES 1001 Orientation and Information Systems
(Sec 001); A-F only; 1 cr
Instructors: Ek, Alan Ryan; Burk, Thomas Edward **!!Alumni Service Award, College of Natural Resources!!**; Ganzlin, William Karl
Guidance in course planning for NRES majors, natural resource careers, liberal education requirements, internships and summer jobs, mentoring, and utilizing alumni contacts. Basics of leadership, organization, and process in natural resources. Introduction to information technology tools in the workplace, lab equipment and software, getting around GUIs, navigating the Internet, preparing documents, making spreadsheet calculations, and using Lumina and periodical indexes. Offered every fall.
Class time: 30% lecture, 20% discussion, 30% laboratory, 10% Field trip/tours
Work load: 10 pages of reading per week, 6 pages of writing per semester, 1 exams, 4 papers
Grade: 20% final exam, 30% written reports/papers, 10% special projects, 10% class participation, 30% lab work
Exam format: Essay
Course URL: www.CNR.umn.edu/FR

NRES 1201 Conservation of Natural Resources
(Sec 001); A-F only; meets CLE req of Environment Theme; 3 cr
Instructor: Blinn, Charles R
This class is intended for 1) lower division (freshman, sophomore) students with an interest in natural resource management (e.g., those majoring in Forestry, Water Resources, Soils, Fisheries and Wildlife, Agronomy, Horticulture or Agriculture) and 2) students from other programs who have

an interest in natural resource conservation and management. Introduction to the issues and approaches associated with conserving and managing natural resources locally, in the Midwest, United States, and globally. Discussion of the basic concepts of ecology, current issues and approaches associated with conserving and managing a variety of renewable natural resources, environmental ethics, conservation economics, and more. Renewable resources addressed include soil, forests, wildlife, fisheries, and wind and solar power. Offered every fall (days) and spring (evenings). We will use the concept of a 'greener campus' as an organizing theme, so you also will develop a greater familiarity with the campus, its natural resources, their conservation and management, The class uses an open, highly participatory, format. We rely on guest speakers, small groups and in-class discussion as well as personal expression through writing. People from all backgrounds, orientations and points of view are explicitly welcomed. We especially seek a wide varity of views and styles of interaction.

Class time: 70% lecture, 30% discussion

Work load: 15 pages of reading per week, 40 pages of writing per semester, 3 exams, 1 papers

Exam format: Multiple choice and essay

Course URL: www.cnr.umn.edu/NRES/courses/nres1201/nres1201.html

NRES 3000 Colloquium: Natural Resources and Environmental Studies: Genetics Applied to Mgmt of Fish and Wildlife

(Sec 001); max crs 6; 6 repeats allowed; A-F only; 1 cr

Instructor: Miller, Loren Michael

We will examine genetic principles and techniques applied to fisheries and wildlife management and conservation. Topic examples include selection, genetic drift, gene flow, population structure, hybridization, and parentage assignment. Various genetic markers and the laboratory techniques for analyzing them (e.g., PCR, electrophoresis, sequencing) will be explained, including laboratory displays. A basic genetics course is recommended but an advanced course or lab experience is not required. Useful for natural resources majors wanting to learn about genetic techniques and applications or genetic majors wanting to learn how their tools can be applied to fish and wildlife conservation.

Class time: 50% lecture, 50% discussion

Work load: 8-20 pages of reading per week, 6-10 pages of writing per semester, 0 exams, 1 papers

Grade: 75% written reports/papers, 10% in-class presentations, 15% class participation

NRES 3003H Honors Colloquium

(Sec 001); max crs 2; A-F only; prereq—Fr or soph, CNR honors, instr consent; meets HON req of Honors; 1 cr

Instructor: STAFF

Lectures from experts, readings, and discussions of current environmental topics and issues. Topics vary and are announced each semester. Offered every fall.

NRES 3051 Experience and Training in a Field Setting

(Sec 001); max crs 3; A-F only; prereq—instr consent; 1-3 cr

Instructor: Splett, Philip John

This course section is for Natural Resources and Environmental Studies majors only. Students give an oral presentation on their approved internship experience, in addition to producing a formal paper or project on a topic related to their experience. The length and detail is dependent upon the number of credits taken. The topic is agreed upon in consultation with a faculty adviser. Offered every semester. Students must complete an internship agreement form and obtain instructor permission to register for this class.

Class time: 10% discussion, 90% Individual faculty consultation.

Work load: 1 Major paper or project.

Grade: 75% written reports/papers, 25% in-class presentations, Also oral report.

Exam format: no exams

NRES 3101 Conservation of Plant Biodiversity

(Sec 001); A-F only; 3 cr

Instructors: Carey, Eileen V; David, Andrew J

Introduction to the principles underlying the assessment and conservation of plant biodiversity at the individual, population, and community levels. Case studies in management of biodiversity to restore or maintain ecosystem function covering issues including genetics, timber harvesting, invasive species, plant reproduction, proprietary rights and others. Assumes a knowledge of basic botany. Offered every fall.

NRES 3245 Recreation Policy and Landscape-level Planning

(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 5245; [jr or sr], completion of all lower div requirements in RRM; meets CLE req of Environment Theme; 3 cr

Instructor: Schneider, Ingrid Elean

Overview of policies that affect recreation at the local, state and federal levels. Landscape-level planning and the building of collaborative relationships as means to implement sustainable natural and social policy. Applied class project involving all aspects of implementing recreation policy, from public meetings to hands-on evaluation of options. Offered every fall.

Class time: 40% lecture, 40% discussion, 20% small groups, teams

Work load: 30 pages of reading per week, 30 pages of writing per semester, 2 exams, 3 papers

Grade: 15% mid-semester exam(s), 15% final exam, 40% special projects, 10% in-class presentations, 10% class participation, 10%

Exam format: short answer essay

NRES 3261W Economics and Natural Resources Management

(Sec 001); A-F only; prereq—=5261; ApEc 1101 or Econ 1101; meets CLE req of Environment Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 3 cr

Instructor: Kilgore, Michael Alan

Introduction to fundamental microeconomic principles and the relationship of economic principles and concepts to natural resource management. Explanation of policy tools used to address market failure, the process of project analysis and evaluation using economic and financial considerations, and benefit/cost analysis methods and examples. Financial and economic valuation and assessment methods for property and resource valuation and links to planning and management problems, including aspects and implications of managing various renewable natural resources.

Class time: 80% lecture, 20% discussion

Work load: 50 pages of reading per week, 12 pages of writing per semester, 3 exams, 2 papers

Grade: 36% mid-semester exam(s), 28% final exam, 27% written reports/papers, 9% problem solving

Exam format: Multiple choice, True-False, Short Answer, Problesm

NRES 4061W Water Quality: Management of a Natural Resource

(Sec 001); meets CLE req of Environment Theme; meets CLE req of Writing Intensive; 3 cr

Instructor: Perry, James A

An interactive large class where you will learn about water quality decision making. Water quality is a very valuable natural resource. In fact, a 1997 survey found that water quality was the most significant environmental issue facing Minnesota. Millions of people in the world have limited access to safe drinking water or sanitation. We are asked to vote on, comment on and pay for changes in water quality. Our failure to be involved will result in increased health risk, increased economic cost and reduced quality of life. The class uses a wide variety of open, highly participatory formats including lecture, small group, large group discussion and debates. The class is writing intensive; students prepare drafts that are peer reviewed and are revised further after review by the instructor and TA

Class time: 30% lecture, 30% discussion, 40% small groups, open debates, individual discussion

Work load: 30 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, Peer review of papers by other students

Grade: 10% mid-semester exam(s), 10% final exam, 30% written reports/papers, 30% special projects, 14% in-class presentations, 6% , Peer reviews

Exam format: short essay

Course URL: www.cnr.umn.edu/FR/degprob/webclass/NRES4061W/index.html

NRES 4195W Problem Solving in Natural Resources and Environmental Studies

(Sec 001); A-F only; prereq—CNR sr, [if NRES: 3211, all core courses, 8 cr in area of concentration; if RRM: 3245, FR 3131, FR 3232]; meets CLE req of Writing Intensive; 4 cr

Instructors: Anderson, Dorothy Helen; Johnson, Gary Ronald; Nelson, Kristen C

Each year students in NRES 4195W work with a client to perform 'real world' projects involving land or resource inventory, planning, and use. Students work in groups of four or five people. The group's goal is to gather data relevant to the client's needs, analyze the data, and based on the data make recommendations for future use. Students produce a final written report for the client, develop a formal presentation describing their findings, and present their findings to the client group. This course is web

enhanced. Target audience is NRES majors in their final year.
Class time: 10% lecture, 10% discussion, 80% case-based community project
Work load: 0 pages of reading per week, 50 pages of writing per semester, 0 exams, 1 papers, professional presentation to the client
Grade: 40% written reports/papers, 30% in-class presentations, 15% class participation, 15% , peer and self-evaluation
Course URL: www.cnr.umn.edu/FR/degprog/webclass/NRES4195/index.html

NRES 4200H Honors Seminar
(Sec 001); A-F only; prereq—NRES upper div honors, instr consent; meets HON req of Honors; 1 cr
Instructor: STAFF
Topics presented by faculty, students, guest speakers. Lecture/discussion. Offered every fall and spring.

NRES 4293 Directed Study
(Sec 001-038); max crs 12; 12 repeats allowed; prereq—instr consent; 1-5 cr
Instructor: STAFF
Student selects and conducts a study of, or project on, a topic of personal interest in consultation with a faculty member. The course is documented by initial proposal and reports of accomplishment. Offered every semester.

NRES 4295W GIS for Problem Solving in Environmental Science and Management
(Sec 001); A-F only; prereq—FR 3131 or instr consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Bolstad, Paul V
The application of spatial data inventory/analysis in complex environmental planning problems. Spatial data collection, database development methods, including GPS, DLG, TIGER, and NWI data, and spatial analysis. Topics identified by non-university partners. Offered every fall.

NRES 4801H Honors Research
(Sec 001); A-F only; prereq—NRES upper div honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
Independent research project supervised by faculty member.

NRES 4802H Honors Research
(Sec 001); A-F only; prereq—NRES upper div honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
Completion of honors thesis. Oral report.

NRES 5061 Water Quality: Management of a Natural Resource
(Sec 001); prereq—Grad student or instr consent; 3 cr
Instructor: Perry, James A
An interactive large class where you will learn about water quality decision making. Water quality is a very valuable natural resource. In fact, a 1997 survey found that water quality was the most significant environmental issue facing Minnesota. Millions of people in the world have limited access to safe drinking water or sanitation. We are asked to vote on, comment on and pay for changes in water quality. Our failure to be involved will result in increased health risk, increased economic cost and reduced quality of life. The class uses a wide variety of open, highly participatory formats including lecture, small group, large group discussion and debates. The class is writing intensive; students prepare drafts that are peer reviewed and are revised further after review by the instructor and TA. Students enrolled in NRES 5061 also are involved in a distinct weekly session in which we read and discuss the primary literature. Students in this advanced class conduct independent field study.
Class time: 30% lecture, 30% discussion, 40% Small groups, open debates, individual discussion
Work load: 30 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, Peer review of papers by other students
Grade: 10% mid-semester exam(s), 10% final exam, 30% written reports/papers, 30% special projects, 14% in-class presentations, 6% , Peer reviews
Exam format: short essay
Course URL: www.cnr.umn.edu/FR/degprog/webclass/NRES4061W/index.html

NRES 5101 Conservation of Plant Biodiversity
(Sec 001); A-F only; prereq—Grad student or instr consent; 3 cr
Instructors: Carey, Eileen V; David, Andrew J
Introduction to the principles underlying the assessment and conservation of plant biodiversity at the individual, population, and community levels. Case studies in management of biodiversity to restore or maintain ecosystem function covering issues including genetics, timber harvesting, invasive species, plant reproduction, proprietary rights and others. Assumes a knowledge of basic botany. Offered every fall.

NRES 5245 Recreation Policy and Landscape-level Planning
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 3245; grad student or instr consent; 3 cr
Instructor: Schneider, Ingrid Elean
Overview of policies that affect recreation at the local, state and federal levels. Landscape-level planning and the building of collaborative relationships as means to implement sustainable natural and social policy. Applied class project involving all aspects of implementing recreation policy, from public meetings to hands-on evaluation of options. Offered every fall.
Class time: 40% lecture, 40% discussion, 20% small groups, teams

NRES 5261 Economics and Natural Resources Management
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: 3261; [[ApEc 1101 or Econ 1101], grad student] or instr consent; 3 cr
Instructor: Kilgore, Michael Alan
Introduction to fundamental microeconomic principles and the relationship of economic principles and concepts to natural resource management. Explanation of policy tools used to address market failure, the process of project analysis and evaluation using economic and financial considerations, and benefit/cost analysis methods and examples. Financial and economic valuation and assessment methods for property and resource valuation and links to planning and management problems, including aspects and implications of managing various renewable natural resources.

NRES 5295 GIS for Problem Solving in Environmental Science and Management
(Sec 001); A-F only; prereq—Grad student or instr consent; 4 cr
Instructor: Bolstad, Paul V
The application of spatial data inventory/analysis in complex environmental planning problems. Spatial data collection, database development methods, including GPS, DLG, TIGER, and NWI data, and spatial analysis. Topics identified by non-university partners. Offered every fall.

Naval Science
203 Armory; 612-625-6677

Nav 1000 Professional Training in Naval Science
(Sec 001); S-N only; prereq—enrolled in NROTC; 1 cr
Instructor: Zagrzebski, James F
Instruction and training in basic military subjects and professional development, including military leadership, close order drill, marksmanship, honors and ceremonies, personnel inspections, and computer-based war game simulations. Classes and small group seminars on leadership and ethical issues with case studies.

Nav 1101 Introduction to Naval Science
(Sec 001); A-F only; 3 cr
Instructor: Wenschlag, Eric Lee
Student may contact the instructor or department for information.

Nav 2000 Professional Training in Naval Science
(Sec 001); S-N only; prereq—Soph enrolled in NROTC; 1 cr
Instructor: Zagrzebski, James F
Instruction and training in basic military subjects and professional development, including military leadership, close order drill, marksmanship, honors and ceremonies, personnel inspections, and computer-based war game simulations. Classes and small group seminars on leadership and ethical issues with case studies.

Nav 3000 Professional Training in Naval Science
(Sec 001); S-N only; prereq—Jr enrolled in NROTC; 1 cr
Instructor: Zagrzebski, James F
Instruction and training in basic military subjects and professional development, including military leadership, close order drill, marksmanship, honors and ceremonies, personnel inspections, and computer-based war game simulations. Classes and small group seminars on leadership and ethical issues with case studies.

Nav 3301 Navigation I: Piloting and Celestial Navigation
(Sec 001); A-F only; 3 cr
Instructor: Hutton, David Allen
The primary objective of this course is to provide the student with the basic information and skills necessary to navigate a ship or boat safely and legally through inland, coastal, and international waters. The course will cover the following broad areas of navigation: Interpretation and use of navigational charts; Navigational instruments and their use; Sound/light signals and buoys; Tide and current computations; Piloting procedures; Celestial Navigation; U.S. Inland and International Rules/Laws.

Nav 4000 Professional Training in Naval Science
(Sec 001); S-N only; prereq—Sr enrolled in NROTC; 1 cr
Instructor: Zagrzebski, James F
Instruction and training in basic military subjects and professional development, including military leadership, close order drill, marksmanship, honors and ceremonies, personnel inspections, and computer-based war game simulations. Classes and small group seminars on leadership and ethical issues with case studies.

Nav 4401 Leadership and Management I
(Sec 001); A-F only; 3 cr
Instructor: STAFF
This course is an advanced level of study of organizational behavior and management designed to prepare students to balance leadership and management in their role as junior officers in the fleet. This course stresses learner-centered processes, such as collaboration, experiential exercises, reflective writing and group discussion. After an overview of Leadership and Management in Organizations, we will use this learning system to examine the leadership process in the context of the dynamic interaction of The Leader, the Followers, and The Situation. Case study discussions are sequenced throughout the course to illustrate the relevance of key concepts presented in preceding sessions and relate these ideas to the real-life experiences. The courseÆs theory to application model provides a scholarly framework complemented by direct application in each session. The custom textbook includes classic readings by prominent thinkers from numerous academic disciplines as well as thoughts from great military leaders like Vice Admiral James B. Stockdale, General Walt Ulmer, General S.L.A. Marshall and Major General Perry Smith. This course is designed to arm students with an understanding of the fundamental theoretical concepts of leadership and management, and to give students a set of practical leadership tools that can be derived from the theoretical concepts.
Class time: 30% lecture, 70% discussion
Work load: 30 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers, 1 presentation
Grade: 20% mid-semester exam(s), 15% written reports/papers, 15% in-class presentations, 20% class participation, 10% problem solving, 20% , exam
Exam format: essay and short answer

Nav 4410 Amphibious Warfare
(Sec 001); A-F only; 3 cr
Instructor: Zagrzebski, James F
This is a history-based course which traces the evolution of amphibious warfare from ancient times to present in a simple case study format.It is open to all university students who are interested in learning about amphibious warfare from a warfighting perspective.It begins with an overview of amphibious doctrine and the principles of warfare.Students will study historical examples of important battles in history as a method used to gain insight into both past and modern warfare.It is based on case studies designed to illuminate certain patterns and principles that provide a basis for a professional understanding of amphibious warfare.The student will apply the principles of war and the levels of war to analyze specific operations of the past while bringing into focus the application of these same principles and concepts to the amphibious battlefields of the present and future.Military history is used as a means by which the student may challenge and question the decisions of the past. Upon completion of the course the student should be able to:1) Comprehend the evolution of amphibious warfare and the impact of the cases studied on the evolution of amphibious warfare doctrine.2) Know the significant events in history relating to amphibious warfare.3) Comprehend the problems and advantages relative to employment of amphibious forces in the modern era. For more information contact Major Jim Zagrzebski U.S. Marine Corps at zagrz001@tc.umn.edu or 612-625-1567.
Class time: 75% lecture, 25% discussion, No prior military knowledge or previous military training or education is necessary to learn and app
Work load: 10 pages of reading per week, 5 pages of writing per semester, 2 exams, 1 papers, 1 presentation; note: At lease one famous military individual is planned to guest lecture one of the
Grade: 25% mid-semester exam(s), 25% final exam, 10% written reports/papers, 5% quizzes, 25% in-class presentations, 10% class participation
Exam format: Mostly Multiple Choice with 1 Essay

Neuroscience
6-145 Jackson Hall 612-626-6800

NSc 5037 Psychology of Hearing
(Sec 001); Credit will not be granted if credit has been received for: PSY 5037; prereq—Psy 3031 or instr consent; 3 cr
Instructor: STAFF
Biological and physical aspects of hearing, auditory psychophysics, theories and models of hearing, perception of complex sounds including music and speech, clinical and other applications. The general objective of this course is to introduce the student to basic phenomena of audition, the theoretical ideas used to explain these phenomena, and the methods used to study audition. Topics include: 1. The physics of sound. Measurement of sound. Temporal and spectral representations. Filters and physical analogies. 2. Structure and function of auditory system. Evolution of hearing. 3. Auditory physiology. Peripheral and central representation in neural responses. 4. Psychological measurement of hearing. Classical and modern psychophysics. Scaling. 5. Temporal aspects of hearing. Temporal resolution and temporal integration. 6. Frequency selectivity. Masking, critical bands, frequency discrimination. 7. Frequency coding and pitch. Models of pitch perception. 8. Intensity coding and loudness. Intensity discrimination, models of intensity coding. 9. Localization of sounds in space. Binaural hearing. 10. Perception of complex sounds. Perception of speech and music. 11. Applications. Hearing impairment and auditory prosthetic devices. Sound reproduction. The course consists of 3 hours per week of lecture in class plus 6 hours of work outside of class.

NSc 5461 Cellular and Molecular Neuroscience
(Sec 001); Same as: PHSL 5461; A-F only; prereq—NSc grad student or instr consent; 4 cr
Instructor: Newman, Eric A
Goals of the course: 1) To understand the principles of cellular and molecular neuroscience that underlie the function of cells in the nervous system. 2) To study key molecules in the nervous system and learn how they determine cellular properties. 3) To understand the basic principles of neurophysiology and cell biology that underlie cell signaling and communication in the nervous system. 4) To learn about molecular, genetic, cellular, and electrophysiological approaches to stydying the nervous system in health and disease. 5) To learn how to read the primary literature critically and to give effective oral presentations. 6) To learn how to write a concise review of a scientific topic based on primary journal articles.
Class time: 65% lecture, 35% discussion
Work load: 30 pages of reading per week, 40 pages of writing per semester, 4 exams, 1 papers
Grade: 10% written reports/papers, 35% class participation, 55% , 4 experiments
Exam format: Essay
Course URL: www.courses.ahc.umn.edu/medical-school/NeuroScience/5461/

Neuroscience Department
6-145 Jackson Hall 612-626-6800

Nsci 3101 Introduction to Neuroscience I: From Molecules to Madness
(Sec 001); A-F only; prereq—credit will not be granted if credit received for: Biol 3101, Phsl 3101; Biol/BioC 3021 or BioC 4331; 3 cr
Instructors: Miller, Robert F; Branton, W Dale; Mermelstein, Paul G
This course serves as an introduction to the basic principles of cellular and molecular neurobiology and nervous systems. The main topics include: Organization of simple networks, neural systems and behavior; how the brain develops and the physiology and communication of neurons and glia; the molecular and genetic basis of cell organization; ion channel structure and function; the molecular basis of synaptic receptors; transduction mechanisms and second messengers; intracellular regulation of calcium, neurotransmitter systems, including excitation and inhibition, neuromodulation, system regulation and the cellular basis of learning, memory and cognition. The course is intended for students majoring in neuroscience, but is open to all students with the required prerequisites. The course consists of three hours of lecture per week and approximately six hours of preparation and study per week for students.
Class time: 100% lecture

Work load: 6 hours/week
Grade: 33% mid-semester exam(s), 67% final exam
Exam format: Multiple choice
Course URL: www.neurosci.umn.edu/courses/3101/3101-home.html

Nsci 3105 Neurobiology Laboratory I

(Sec 001, 002); Credit will not be granted if credit has been received for: BIOL 3105, PHSL 3105, NSC 3105, NSCI 3105; A-F only; prereq—[3101 or Biol 3101 or Phsl 3101], [3102W or Biol 3102W], instru consent; 1.5 cr
Instructor: Dubinsky, Janet M
This course serves as an introduction to the principles, methods and laboratory exercises for investigating neural mechanisms and examining experimental evidence. This course constitutes a part of the core curriculum for Neuroscience majors and is designed to supplement and reinforce the objectives of NSci 3101 by emphasizing experimental approaches to understanding the brain. The course will provide an introduction to the development and structure of the vertebrate brain and the various experimental techniques available for this study. Topics include: Comparative gross and cell anatomy of invertebrate and vertebrate nervous systems; gross dissection of fish and mammalian brains; use of experimental histochemistry and fluorescent tracers to study brain circuitry, neurons and synaptic connections in the rat brain; small animal surgery and microdissection; use of fluorescent, confocal and dissecting microscopes; use of stereotaxic brain atlas. Students can expect 4 hours of laboratory and 2 hours for preparation and analysis per week. The main theme of the course is to learn by observation. The specific observations you make will be mostly self-directed and guided by a written assignment each week. There will be only a limited number of specific exercises with detailed instructions, the rest will depend on your initiative.
Class time: 100% laboratory
Work load: 8 written assignments, 1 lab project
Grade: 50% written reports/papers, 20% class participation, 30%, Final oral presentation
Course URL: www.neurosci.umn.edu/courses/3105/3105-home.html

Nsci 4793W Directed Studies: Writing Intensive

(Sec 001); max crs 7; 7 repeats allowed; S-N only; 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; 1-7 cr
Instructor: STAFF
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.
Work load: 45 hrs per credit per semester
Grade: 100% written reports/papers
Course URL: www.neurosci.umn.edu/courses/4793W/4793W—instructns.html

Nsci 4794W Directed Research: Writing Intensive

(Sec 001); max crs 7; 7 repeats allowed; S-N only; 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; 1-7 cr
Instructor: STAFF
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 constuction 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.
Work load: 45 hrs per credit per semester
Grade: 100% written reports/papers
Course URL: www.neurosci.umn.edu/courses/4794W/4794W—instructns.html

Nsci 4993 Directed Studies

(Sec 001); max crs 7; S-N only; prereq—instr consent, dept consent; max of 7 cr of 4993 and/or 4994 may count toward major requirements; 1-7 cr
Instructor: STAFF
Individual Study of selected topics with emphasis on selected readings and use of scientific literature. The course objective is to permit students who desire to learn about a specialized topic not already presented in a regularly scheduled lecture course to explore that area through individualized independent reading, analysis, and writing of a term paper. Topics and the literature vary according to the needs of the student. Most of the readings will be drawn from the primary research literature of neuroscience and related disciplines, although some monographs and reviews may also be consulted. This directed study course involves a student workload of a minimum of 45 hours work per credit (total workload for the entire semester). Some of this effort involves consultation with the faculty member who is directing the study and the remainder would be time spent by the student reading appropriate literature, conducting laboratory exercises, analyzing data, and/or writing one or more summary reports.
Work load: 45 hours per credit per semester
Grade: 100% written reports/papers
Course URL: www.neurosci.umn.edu/courses/4993/4993—instructns.html

Nsci 4994 Directed Research

(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; max of 7 cr of 4993 and/or 4994 may count toward major requirements; 1-7 cr
Instructor: STAFF
Directed Research is an individualized research experience under the direction of a faculty mentor. The course objective is to provide opportunity for undergraduates (primarily undergraduate majors in neuroscience) to experience laboratory research. This is very important preparation for those who intend to apply for graduate study. Topics vary according to the subject matter of the research project chosen by the student, with assistance from the faculty mentor. Readings will include several papers from the primary research literature as well as some review articles and several papers about appropriate research methods. Overall student effort will be at least 45 hours per semester per credit. Student effort is expected to include contact time with mentor (number of hours varies) to discuss direction of the project, methods to be used, results and interpretation, as well as future directions. In addition, the student will spend time doing experiments, collecting data, organizing results, as well as reading pertinent literature and writing a summary report.
Work load: 45 hours per credit per semester
Grade: 100% written reports/papers
Course URL: www.neurosci.umn.edu/courses/4994/4994—instructns.html

Norwegian

205 Folwell Hall; 612-625-2080

Nor 1001 Beginning Norwegian

(Sec 001, 002); Credit will not be granted if credit has been received for: NOR 4001; 5 cr
Instructor: STAFF
This is the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Norwegian. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transacions. Class sessions will emphasize interactive communicative activities in pairs and small groups, with a focus on improving listening and speaking skills. Additional class time will be spent on reading, writing, and grammar. Students are expected to practice these skills outside of class as well. Learning about life and culture in Norway is an integral part of the course. See description for Nor 4001 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Class time: 10% lecture, 70% discussion, 20% laboratory
Grade: 50% written reports/papers, 50%, oral/aural
Exam format: structured exercises in all 4 modalities and grammar, pronunciation, vocabulary and culture

Nor 1003 Intermediate Norwegian

(Sec 001, 002); Credit will not be granted if credit has been received for: NOR 4003; prereq—1002; 5 cr
Instructor: STAFF
This course continues the presentation of Norwegian language skills begun in 1001-2 (or quarter courses 1101-2-3). At this level, students will be reading and listening to more advanced authentic Norwegian material and

will expand and refine vocabulary and knowledge of grammar. The 1003-4 course sequence will prepare students for the Graduation Proficiency Test (GPT) that will be taken toward the end of 1004. Students will practice the four language skills (speaking, writing, reading, and listening). Class sessions will emphasize interactive communicative activities in pairs and small groups; additional class time will be spent on reading, writing, and grammar. Students are expected to practice these skills outside of class as well. Learning about life and culture in Norway is an integral part of the course. See the description for Nor 4003 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Class time: 10% lecture, 70% discussion, 20% laboratory
Grade: 50% written reports/papers, 50% , oral/aural
Exam format: written essays, listening and reading protocols, structural exercises, oral interviews

Nor 1010 Online Basic Norwegian
(Sec 001); max crs 8; 4 repeats allowed; 2 cr
Instructor: Hult, Marte Hvam
Introduction to Norwegian language and culture for students with a personal interest. Taught entirely online, students work at their own pace using multi-media WebCT-delivered curriculum. The instructor and students interact through e-mail, threaded discussions, chat rooms, and audio messages. Reading, listening, writing, and some speaking exercises are included. Students will learn basic vocabulary and structures of the Norwegian language. The course presents information about Norwegian customs in homes and in shops that the students would encounter if they travel to Norway. For more information contact Charlotte Melin Director of Language Instruction Phone: 625-3380 e-mail: melin005@tc.umn.edu

Nor 4001 Beginning Norwegian
(Sec 001, 002); Credit will not be granted if credit has been received for: NOR 1001, NOR 1001; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: STAFF
See the course description for Nor 1001. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Nor 1001 under the number Nor 4001 for 2 credits. Contact the department office, (612) 625-2080, for permission.

Nor 4003 Intermediate Norwegian
(Sec 001, 002); Credit will not be granted if credit has been received for: NOR 1003, NOR 1003; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: STAFF
See the course description for Nor 1003. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Nor 1003 under the number Nor 4003 for 2 credits. Contact the department office, (612) 625-2080, for permission.

Nursing
6-101 Weaver-Densford Hall; 612-624-9600

Nurs 1020 Challenge of Nursing
(Sec 001); S-N only; 2 cr
Instructor: Lindquist, Ruth Ann
This course presents an overview of the profession and practice of professional nursing. Views of contemporary nursing and its historical roots and stages are also discussed. The wide variety of career opportunities and challenges of a nursing career are discussed. Guest lecturers provide "real-world" stories and facts about care settings. The lecture format is embellished with class discussions and question-answer opportunities. A tour of the School of Nursing, readings, Internet exploration and class projects immerse students in information relevant to this dynamic and diverse career in the health field. The course targets undergraduates who are interested in pursuing a major in nursing as well as students who desire to know more about nursing or as a field in health care. This course is useful to students who are exploring options for a professional career in the health sciences.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 4-8 pages of writing per semester, 2 exams, 4 papers
Grade: 2 reviews/3 written reports/1special project/class attendance: The class is pass/fail. All of the ac

Nurs 4000 Introduction to Public Health
(Sec 001); prereq—Completed 15 cr; 2 cr
Instructors: Cross, Sharon L.; Weisensee, Mary G
This course is a prerequisite for the undergraduate nursing program. It is an introductory course in public health that focuses on the core functions, essential services, tenets and principles of public health, epidemiology, and population focused data and populations. This is an overview course presented by experts in the field of presentation that include environmental health, infectious and chronic disease including HIV/AID, international , health service delivery, culturally diverse populations, ethics and public health, chemical and mental health, and vulnerable populations.
Class time: 90% lecture, 10% video, slides
Work load: 40 pages of reading per week, 12 pages of writing per semester, 3 exams, 1 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 20% quizzes
Exam format: multiple choice

Off-Campus Study
320 Johnston Hall; 612-624-1377

OCS 0550 National Student Exchange: Off-Campus Study
(Sec 001); 3 repeats allowed; S-N only; prereq—dept consent; 0 cr
Instructor: STAFF
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.

OCS 1550 National Student Exchange: Off-Campus Study
(Sec 001); max crs 15; 3 repeats allowed; S-N only; prereq—dept consent; 1-15 cr
Instructor: STAFF
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.

OCS 3550 National Student Exchange: Off-Campus Study
(Sec 001); max crs 15; 3 repeats allowed; S-N only; prereq—dept consent; 1-15 cr
Instructor: STAFF
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.

Operations and Management Sciences
3-150 CarlsMgmt; 612-624-7010

OMS 1550 Business Statistics: Data Sources, Presentation, and Analysis
(Sec 001, 004, 007, 010, 013); A-F only; prereq—[Math 1031 or equiv], at least 20 cr; 4 cr
Instructor: STAFF
Exploratory data analysis, basic inferential procedures, statistical sampling/design, regression/time series analysis. How statistical thinking contributes to improved decision making.

OMS 3056 Managing Supply Chain Operations
(Sec 001); A-F only; prereq—3001 or instr consent; 4 cr
Instructor: STAFF
Concepts and principles related to designing, controlling, and improving production and inventory management systems throughout the supply chain. Topics include capacity planning, inventory planning, production planning, forecasting methods, Materiel Requirements Planning (MRP), Just-in-Time, and theory of constraints.

OMS 3059 Quality Management and Six Sigma
(Sec 001); A-F only; prereq—3001 or equivalent or instr consent; 4 cr
Instructor: STAFF
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.

Pharmacy
3-110 Weaver-Densford Hall; 612-624-9430

Phar 1002 Health Sciences Terminology
(Sec 001); prereq—Orientation [online or in-person], obtain info by end of 1st day of class at [B-288 Mayo or www.pharmacy.umn.edu/outreach/medterm/1002]; 2 cr
Instructor: Janke, Kristin Kari
This self-study, unlimited enrollment course has been designed to provide undergraduate students with an introductory knowledge of the terminology utilized in the Health Sciences. Students will learn how to analyze and build words from combining forms, suffixes, and prefixes in a systematic manner. Students will develop a working knowledge of the medical language which will serve as a basis for further course work in the health sciences. Orientation is required (on-line or at a limited number of in-person sessions). Obtain orientation information no later than the end of the 1st day of classes from flyer available outside B-288 Mayo and on website at www.pharmacy.umn.edu/outreach/medterm/1002 . Questions may be addressed to Ruthie Knoche Granheim (granheim@umn.edu; 612-625-8616).
Class time: 100% Self-study with regularly scheduled teaching sessions
Work load: 5 exams, Final required only if average of 4 exams = <90%
Grade: 100% , average of 4 exam scores
Exam format: multiple choice, bubble sheets
Course URL: www.pharmacy.umn.edu/outreach/medterm/1002

Phar 5201 Health Sciences Applied Terminology
(Sec 001); prereq—[1002 or anatomy/physiology], orientation [online or in-person], obtain info by end of 1st day of class at [B-288 Mayo or www.pharmacy.umn.edu/outreach/medterm/5201]; 2 cr
Instructor: Janke, Kristin Kari
This is an advanced, self-study, unlimited enrollment course for undergraduate and professional students that presumes basic knowledge of human anatomy and physiology. Students will learn medical terms as well as how to apply them when documenting and reporting patient care procedures. Students will develop a working knowledge of the medical language which will serve as a basis for further course work in the health sciences. Orientation is required (on-line or at a limited number of in-person sessions). Obtain orientation information no later than the end of the 1st day of classes from flyer available outside B-288 Mayo and on website at www.pharmacy.umn.edu/outreach/medterm/5201 . Questions may be addressed to Ruthie Knoche Granheim (granheim@umn.edu; 612-625-8616).
Class time: 100% Self-study with regularly scheduled testing sessions
Work load: 5 exams, Final required only if average of 4 exams = <90%
Grade: 100% , Average of 4 exam scores
Exam format: multiple choice, bubble sheet
Course URL: www.pharmacy.umn.edu/outreach/medterm/5201

Philosophy
831 Heller Hall; 612-625-6563

Phil 1001 Introduction to Logic
(Sec 001, 008); prereq—credit will not be granted if credit received for: 1021; meets CLE req of Mathematical Thinking Core; 4 cr
Instructor: Owens, Joseph I
In this course we will be concerned with two very different things. In the first place we will try to improve certain critical reasoning skills, skills which are essential in every intellectual context; in particular, we will be concerned with honing our ability to recognize, construct and evaluate arguments. Though we all have some intuitive ability in carrying out these tasks, that ability can be improved and we shall aim at doing just that. In learning how to evaluate and construct arguments, we will not simply rely upon 'intuitive insight' upon getting you to 'see it' in some clearer fashion. Our strategy will be very different; it will consist of translating or representing the 'natural argument' in a 'formal' or 'artificial language'. For this artificial language we have precise rules, rules which determine what logically follows from what. Using these rules we evaluate the translation of the original argument. If the translation is no good (if it violates the explicit rules) the original is no good; if the translation is good, the original argument is good. This brings us to the second point of the course: though this course is not primarily intended to be a course in symbolic logic, we do want to provide some indication as to what that disciplice is like. In this course we only get a taste of this, but we do get a taste, and there are further courses for those who long for more.
Class time: 90% lecture, 10% cctv

Phil 1003W Introduction to Ethics
(Sec 001); prereq—credit will not be granted if credit received for: 1103 or 1103V; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Dahl, Norman O
This course provides an introduction to moral philosophy via a discussion of a number of topics that arise in connection with the views of three prominent thinkers in the history of western philosophy—Plato, David Hume, and Immanuel Kant. Among the topics to be covered in the course will be the method appropriate for doing moral philosophy, Plato's conception of what it is to be moral, Plato's answer to the question 'Why should I be just?', Plato's conception of the ideal society, Hume's view about the nature of moral judgements, the objectivity of moral judgments, two forms of utilitarianism implicit in Hume's discussion of artificial virtues, utilitarianism and its conception of how society should be organized, Kant's view of the nature of morality, Kant's claim that the categorical imperative is the fundamental principle of morality and its connection with both the Golden Rule and rule utilitarianism, and Kant's conception of how society should be organized.
Class time: 75% lecture, 25% discussion
Work load: 50 pages of reading per week, 15-21 pages of writing per semester, 3 papers, 3 papers—including a first draft of the first paper.
Grade: 90-100%—written reports or papers and 0-10%—class participation.

Phil 1004W Introduction to Political Philosophy
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Root, Michael D **!!CLA Distinguished Teaching Award!!**
This course is built around four questions. First, what do we owe our government (Do we owe it our obedience?); second, what does our government owe us (Does it owe us an education, housing or health care?); third, should our government ignore our race and ethnicity; and fourth, who should be allowed to become a citizen? Our emphasis will be on the arguments used to support and oppose the different answers to these four questions as much as on the answers themselves. Students registered for 1004 can also register for a practicum, Phil 1007; it carries 1 additional credit and will require some form of community service as well as some additional course work. Approved opportunities for community service can be arranged through the Office of Special Learning Opportunities. All students taking 1007 must take 1004, but not all students in 1004 need to take 1007.
Class time: 80% lecture, 20% discussion
Work load: 60 pages of reading per week, 20 pages of writing per semester, 4 papers
Grade: 15% final exam, 85% written reports/papers
Exam format: essay
Course URL: classweb.cla.umn.edu

Phil 1006W Philosophy and Cultural Diversity

(Sec 001); Credit will not be granted if credit has been received for: PHIL 1002, PHIL 1002W, PHIL 1002W; prereq—credit will not be granted if credit received for: 1002W or 1026W or 1102; meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 4 cr

Instructor: Lewis, Douglas E **!!John Tate Award Undergrad Advising!!**

Incorporating both lecture and discussion, this course will introduce students to philosophy through culturally diverse texts and will explore, in the context of traditional philosophy, such central themes of cultural diversity as gender, ethnicity and race. Authors include: Anzaldua Camus, Descartes, DuBois, Haley, Locke, Lorde, Neihardt, and Plato. Students are required to integrate analytical and experiential approaches and to do a variety of types of writing, including outlines, in-class writing, and formal papers. The course satisfies both an arts and humanities diversified core and a cultural diversity designated themes requirement, and is intended for all interested students.

Class time: 65% lecture, 35% discussion

Work load: 40 pages of reading per week, 12 pages of writing per semester, 4 papers, 14 informal writings, one per week

Grade: 75% written reports/papers, 25% , discussion, participation, informal writing, presentations

Phil 1007 Introduction to Political Philosophy Practicum

(Sec 001); prereq—concurrent enrollment 1004W; meets CLE req of Citizenship/Publ Ethics Theme; 1 cr

Instructor: Root, Michael D **!!CLA Distinguished Teaching Award!!**

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 2 hours/wk of community service is required. Students in Phil 1007 attend classes for Phil 1004 and write 7 (2-page) biweekly papers, as well as give a presentation in Phil 1004.

Class time: 100% community service

Work load: 14 pages of writing per semester, 7 papers

Grade: 75% written reports/papers, 25% in-class presentations

Course URL: classweb.cla.umn.edu

Phil 3303W Business Ethics

(Sec 001); A-F only; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr

Instructor: Bowie, Norman Ernest **!!Endowed Chair, Andersen/Corp Respon!!**

Business Ethics: An examination of the purpose of business, its obligations to its various stakeholders, e.g., stockholders, customers, and employees and its social responsibilities to the overall community. Typical topics include issues of privacy, product safety, intellectual property, deception in marketing and advertising and corporate charitable giving. Requirements: Team project, case studies, and final exam.

Class time: 70% lecture, 30% discussion

Work load: 50 pages of reading per week, 25 pages of writing per semester, 1 exams, 4 papers, One paper as a team project

Grade: 20% final exam, 50% written reports/papers, 20% special projects, 10% in-class presentations

Exam format: Essay

Phil 3307W Social Justice and Community Service

(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 4 cr

Instructor: Wallace, John R

This course is designed as the first course in a sequence—to be followed by Philosophy 3308 in Winter quarter. It is also a course which can stand alone (that is, students may take one of 3307 or 3308 without taking the other). The best way to characterize the course is to say that (i) it is about four questions and (ii) it is about a method of inquiry. The questions are: What is good learning (good education)? What is right livelihood? What is a good life? What is a good society? The method of inquiry used in the course is philosophical. It is characterized by careful attention to the explicit articulation of views and positions and to giving reasons for these views and positions. It is especially alert to noticing and bringing into the open hidden assumptions and presuppositions. It also seeks to make explicit frameworks for approaching such large questions as "what is a good life?" and "what is a good society?" Students in the course are required to be involved in an ongoing activity in the wider community outside the classroom, an activity which normally will include working or learning (or both!) with others on a shared concern or issue or problem. This activity should be a commitment of at least two hours per week, and often will be four or more hours.

Class time: 25% lecture, 75% discussion

Phil 3502W Introduction to Aesthetics

(Sec 001); max crs 4; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 3 cr

Instructor: Eaton, Marcia Muelder **!!CLA Dean's Medal, CLA Dean!!**

Lecture/discussion course for majors and non-majors. Three-fourths of course devoted to history of philosophy or art, Plato to Tolstoy. Questions concerning nature of art and aesthetic experience discussed. One-fourth or course devoted to applying these theories to practical aesthetic problems, such as public art policies, forgery, environmental aesthetic management. Several short written assignments. One term paper. No exams.

Class time: 75% lecture, 25% discussion

Work load: 20 pages of reading per week, 30-40 pages of writing per semester, 0 exams, 9 papers (8 short, 1 long)

Grade: 90% written reports/papers, 10% class participation

Phil 3607W Philosophy of Psychology

(Sec 001); prereq—One course in philosophy or psychology; meets CLE req of Writing Intensive; 4 cr

Instructor: Owens, Joseph I

Mental phenomena present the philosopher with a number of deep but inescapable puzzles and challenges. We tend to suppose that we know what it is to have a mind, to have beliefs, desires, etc., and we think that each one knows her own own mind, know it and its contents even better than the world around her. All of this is surely amazing; indeed it verges on the outrageous. We admit to not knowing the makeup of the simplest structures, to not knowing how to explain the behavior of the simplest organisms—we leave such issues to scientific investigators—and at the same time we think we know how to explain the behavior of this most complex of systems; we know how to do it, and we know what we are talking about when we explain behavior by citing the relevant beliefs, desires, etc. Strange indeed. Not only is this initial conifidence puzzling, but attempts to articulate it and integrate it inot the larger picture have all proven problematical. We start our investigation with a brief look at Descartes, who is usually supposed to have expressed our shared intuitive conception of mind. For our purposes, Descartes' vision is best viewed as posing the central problems rather than answering them.

Class time: 75% lecture, 25% discussion

Work load: 2-3 exams

Grade: 100% written reports/papers

Phil 3993 Directed Studies

(Sec 001); max crs 6; 6 repeats allowed; prereq—instr consent, dept consent, college consent; 1-3 cr

Instructor: STAFF

Students may contact the instructor or department for information.

Phil 4004W 19th-Century Philosophy

(Sec 001); prereq—[Grad or upper div undergrad] student; meets CLE req of Writing Intensive; 3 cr

Instructor: Gunderson, Keith

The course will deal with writings by Kant, Schopenhauer, Marx, Kierkegaard, and Nietszche. These writings cover a wide range of philosophical topics, many of them closely connected with one another, and some more isolated. The first few weeks of the course wil focus on a short but very difficult work of Kant's (The Prolegomena to any Future Metaphysics) which summarizes his highly influential views on many large and important issues having to do with the limits of human reason in attempting to understand the nature reality. Schopenhauer's neo-Kantian views are contrasted with Kant's on similar topics, but will include as well his theory of art and the mind. A short piece by Marx on political philosophy (dealing with what he calls "alienated labor") is studied next, and is more or less self-contained. With Kierkegaard there is another shift of problems, this being to those involving faith in God, knowledge, and human religious and social commitments. In the writings of Nietszche there is a return (of a highly critical sort) to some of the themes dealt with by Kant and Schopenhauer together with a number of Nietzche's own novel doctrines.

Class time: 35% discussion

Work load: 40 pages of reading per week, 18 pages of writing per semester, 3 papers

Grade: 85% written reports/papers, 15% class participation

Exam format: 2 topics (chosen from a list) to be dealt with equally for each 6 page paper.

Phil 4607W Philosophy of the Biological Sciences
(Sec 001); prereq—Courses in [philosophy or biology] or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Waters, C. Kenneth
Biology is a provocative science. We often hear that biology provides or will soon provide answers to a broad range of questions with intellectual, social, and perhaps even religious import including the following: Where did human beings come from? In what sense are the forms of life contingent? What is responsible for the development and functioning of individual organisms? What are the fundamental units of life? Is life reducible to molecules? What causes differences among organisms? What is the basis of human behavior and behavioral differences? We will investigate contemporary evolutionary biology and molecular biology to determine the extent to which science might answer such questions.
Class time: 66% lecture, 34% discussion
Work load: 50 pages of reading per week, 20 pages of writing per semester, 2 papers, plus one rewrite
Grade: 80% written reports/papers, 20% class participation

Phil 4611W Philosophy of the Social Sciences
(Sec 001); prereq—9 cr of [philosophy or social science] or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Root, Michael D **!!CLA Distinguished Teaching Award!!**
This course explores three philosophical issues raised by the social sciences: (1) how do or should the methods used in the social sciences to justify theories or explanations differ from those used in the natural sciences; (2) how do or should the methods used in the social sciences to collect and classify data differ from those used in the natural sciences; (3) how do or should the ideals of the social and natural sciences differ and, in particular, can or should inquiry in the social sciences be value-neutral? The course is designed for social science students as well as for students with a background in philosophy.
Class time: 60% lecture, 40% discussion
Work load: 80 pages of reading per week, 30 pages of writing per semester, 3 papers
Grade: 80% written reports/papers, 10% in-class presentations, 10% class participation

Phil 4615W Minds, Bodies, and Machines
(Sec 001); prereq—one course in philosophy or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Gunderson, Keith
The course is divided roughly into two closely related but somewhat separately developed topics: 1) those haveing to do with traditional and contemporary theories of our knowledghe of our mind and other minds, and the relationship between minds and bodies (mental states processes and events, and neurophysiological states, processes, and events, together with behavior); 2) philosophical aspects of AI (artificial intelligence) which include topics such as "Can machines think?", "Could a robot have feelings?" and so on, together with issues in cognitive psychology, computer simulation of cognition, and other matters. Doctrines discussed throughout the course include mind/body dualism, the identity theory, eliminative materialism, functionalism, epiphenomenalism, and the connected issues of intentionality, the status of "folk psychology" and others.
Class time: 60% lecture, 40% discussion
Work load: 40 pages of reading per week, 18 pages of writing per semester, 2-3 papers, writing will include either two 9 page or three 6 page papers (to be decided)
Grade: 85% written reports/papers, 15% class participation
Exam format: the papers serve as the exams

Phil 5201 Symbolic Logic I
(Sec 001); prereq—1001 or instr consent; 4 cr
Instructor: Hanson, William H **!!Morse Alumni Award!!**
This course is an introduction to the fundamentals of symbolic logic. It is intended for students who have already had some exposure to the subject, such as that offered in Phil 1001. Topics will include syntax and semantics of a first-order language, translation from English to first-order languages and vice versa, formal proofs, and some basic results of meta-theory (soundness and completeness). The text, Barwise and Etchemendy, "Language, Proof and Logic" comes with a software package that greatly facilitates mastering the material of the course. Requirements will include exercises to be handed in on a regular basis and five exams (including the final exam)
Class time: 60% lecture, 40% discussion
Exam format: Mostly problem solving, some short answer

Physical Education
220 Cooke Hall; 612-625-5300

PE 1004 Diving: Springboard
(Sec 001); prereq—1007 or equiv or instr consent; 1 cr
Instructor: STAFF
All class materials provided. Course open to anyone interested in learning about diving as a sport. Course involves notes on technical aspects of competitive diving, actual participation in learning how to dive, safely and correctly.
Class time: 100% participatory, 20% attitude toward learning
Work load: 3 pages of writing per semester, 1 exams, 1 papers
Grade: 10% written reports/papers, 20% quizzes, 50% class participation
Exam format: Multiple choice, matching, fill-in-the-blanks

PE 1007 Beginning Swimming
(Sec 001-004); 1 cr
Instructor: STAFF
This course is designed to introduce students to basic aquatic safety and to teach the fundamentals of swimming and hydrodynamics. Students will: gain a basic understanding of the principles of hydrodynamics and stroke mechanics; be introduced to the five basic strokes; demonstrate basic aquatic skills; read about the concepts of hydrotherapy for disabilities and other conditions; and gain knowledge of opportunities which exist for competitive activities and for a lifetime enjoyment of aquatics. The required textbook is American Red Cross "Swimming and Diving". This same text will be used for both PE 1007 and PE 1107. Students will be swimming and practicing in the pool for every class meeting with the exception of written exam days. Students are welcome to attend more than one section of class for extra practice time.
Class time: 10% lecture, 90% in-water practice
Work load: 20 pages of reading per week, 4 exams
Grade: 20% mid-semester exam(s), 20% final exam, 25% quizzes, 35% class participation
Exam format: Written exams: 25 questions multiple choice; practical quizzes: in-water skills test

PE 1014 Conditioning
(Sec 001-009); 1 cr
Instructor: STAFF
Conditioning is a beginning-level class. It is designed to introduce the basic fundamentals of personal fitness. The topics covered are the following: principles of fitness, health-related and motor-skill related components of fitness, principles of training and conditioning programs, nutrition, weight control, common fitness injuries, and stress management.
Class time: 5% lecture, 95% physical activity
Work load: 12 pages of reading per week, 2-3 pages of writing per semester, 1 exams, 1 papers
Grade: 20% final exam, 20% written reports/papers, 30% class participation, 30% , attendance
Exam format: multiple choice, true/false, matching

PE 1015 Weight Training
(Sec 001-009); 1 cr
Instructor: STAFF
Designed as an introductory course in weight training, the course stresses the physiological considerations of weight lifting; selecting exercises for a basic program, charting workouts, nutritional considerations and the safety of weight training.
Class time: 70% lecture, 30% discussion
Work load: 1 exams, 1 papers
Grade: 20% final exam, 10% written reports/papers, 70% class participation
Exam format: multiple choice, fill in the blank

PE 1029 Handball
(Sec 001); 1 cr
Instructor: STAFF
The beginning handball course offers a variety of fun and effective activities to learn the rules and the necessary skill to play the game of handball. Interactive drills, videotaping and game situationals are a few of the methods used to teach the class.
Class time: 20% lecture, 2% cctv, 78% skills and activities.
Work load: 2-5 pages of reading per week, 1 exams
Grade: 40% final exam, 40% class participation, 20% , skills test/ tournament.

PE 1031 Sabre Fencing
(Sec 001); 1 cr
Instructor: STAFF
Basic Sabre techniqes, movement, a general overview of fencing as a recreational sport and an Olympic sport, and the history of fencing.
Class time: 10% lecture, 90% laboratory
Work load: 2 exams
Grade: 10% final exam, 90% lab work
Exam format: multiple choice

PE 1032 Badminton
(Sec 001); 1 cr
Instructor: STAFF
This is a beginning-level class designed to introduce the student to the basic fundamentals of badminton. The following topics will be covered: badminton terminology, game rules of singles and doubles, services, shots, returns, and basic strategies. The text for the course will be "Badminton Today" by Wadood and Tan (1990). General requirements for the course are: 1) assigned reading which the student will be able to apply during on-court exercises; 2) be able to document information learned in class and from readings in the form of a written final exam; and 3) demonstrate court skills which are evaluated through on-court performance assessments.

PE 1033 Foil Fencing
(Sec 001); 1 cr
Instructor: STAFF
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.
Class time: 10% lecture, 90% laboratory
Work load: 2 exams
Grade: 10% final exam, 90% lab work
Exam format: multiple choice

PE 1034 Judo
(Sec 001, 002); 1 cr
Instructor: Crone, Tom
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.
Class time: 5% lecture, 5% discussion, 2 handouts, 1 page each, spring semester-class booklet required
Work load: 2 exams, A 25 page Judo booklet is required reading
Grade: 25% mid-semester exam(s), 25% final exam, 50% class participation
Exam format: Matching, multiple choice, true/false

PE 1035 Karate
(Sec 001-003); 1 cr
Instructor: Fusaro, Robert L
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 mandatory. There will be a $35.00 facility fee.
Class time: 15% discussion, 80% training, 5% exams
Grade: 20% mid-semester exam(s), 70% final exam, 10% , Attendance
Exam format: Mid-term: 20 short multiple choice questions; Final: physical test on basic movements worked on duri

PE 1036 Racquetball
(Sec 001); 1 cr
Instructor: STAFF
Learn the fast-paced and exciting sport of racquetball. In addition to learning the skills of racquetball, you will be able to get a workout at the same time. The course will cover the rules, etiquette, basic strategy, and a variety of shots. Students will be introduced to the forehand and backhand drive strokes, lob shots, 2 shots, pinch shots, kill shots, back-wall shots, and a variety of serves. This is an opportunity to start a lifetime sport.
Class time: 10% lecture, 60% practicing racquetball skills, 30% playing points
Work load: 8 pages of reading per week, 2 exams, 8 weekly quizzes (true-false)
Grade: 10% mid-semester exam(s), 20% final exam, 40% class participation, 30% , skills test
Exam format: short answer

PE 1037 Squash Racquets
(Sec 001); 1 cr
Instructor: STAFF
This course has been designed as an introductory-level activity program for squash players. Its intent is to familiarize the individual with the international dimension courts, and basic equipment for novice players. Daily lessons will focus on entry-level technique as well as safety on and around the court. Upon completion of this course, students will: 1) be able to describe the basic dimensions and markings of an international squash rackets court; 2) be able to select and care for equipment; 3) understand and apply basic rules for play; 4) learn the foundations of a competitive swing; 5) acquire simple court strategy. The texts for the course include the well-illustrated "How to Win at Squash" by Wilkinson (1989), and the "International Rules Book". General requirements for the course are: 1) assigned reading which the student will be able to apply during on-court exercises; 2) be able to document information learned in class and from reading in the form of two written exams; 3) demonstrate court skills which are evaluated through on-court performance assessments; 4) complete an outline of one of the assigned readings and be prepared to orally present their summary to the class.
Class time: 10% lecture, 10% discussion, 80% court
Work load: 10 pages of reading per week, 1 page of writing per week.
Grade: 35% final exam, 15% written reports/papers, 20% class participation, 30% , performance evaluation.
Exam format: multiple choice, essay

PE 1038 Beginning Tennis
(Sec 001-007); 1 cr
Instructor: STAFF
This class is designed for players with little or no experience or for players with experience who want to review the basics. Topics to be covered include: tennis terminology, stroke, fundamentals, game rules, and basic positioning for singles and doubles play, footwork, and tennis etiquette.
Class time: 15% discussion, 85% drill and play
Work load: 10 pages of reading per week, 2 exams
Grade: 25% mid-semester exam(s), 25% final exam, 50% class participation
Exam format: multiple choice, true/false, short answer

PE 1041 Cycling
(Sec 001); 1 cr
Instructor: STAFF
Fundamentals of cycling, including physical fitness associated with aerobic training, stretching, safety, and bike maintenance. Students should provide a bicycle in good working condition.

PE 1043 Beginning Horse Riding
(Sec 001-012); 1 cr
Instructor: Soderberg, Thomas
Students will study the lifelong sport of horseback riding. Focus will be on techniques, styles and communication. Students will learn riding techniques at a walk and trot. This is an English riding class. There will be a $95.00 facility fee. Transportation is provided by the instructor to the St. Croix Equestrian Center.
Class time: 5% lecture, 95% laboratory
Work load: 5 pages of reading per week, 1 exams
Grade: 25% final exam, 75% class participation

PE 1044 Self-Defense
(Sec 001-003); 1 cr
Instructor: STAFF
Course consists of learning basic physical and psychological skills to help the student 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) and blocking. 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 attackers force, eye contact and strong body language, and basic verbal skills such as assertiveness. Also included in self-defense psychological proficiency are basic recognition skills, i.e., how attackers chose victims; plays and scenarios attackers use to get close to victims so the student is more likely to recognize a potentially violent situation early and can apply avoidance skills. Class work will include drills in physical techniques to develop coordination and strength, practice time in hitting and kicking bags, controlled situations with partners (including floor and weapon situations) to teach basic skills of analysis and application.
Class time: 10% discussion, 90% physically active class using demonstration with explanations.
Work load: 1 exams, 1 papers
Grade: 30% final exam, 10% written reports/papers, 60% class participation
Exam format: physical demonstration of basic skills plus physical demonstration with a partner of basic blocking,

PE 1048 Bowling
(Sec 001); 1 cr
Instructor: STAFF
Designed as an introductory course in bowling, the course stresses fundamentals of stance, approach and delivery, scoring, bowling terminology, and etiquette. There is a $40.00 facility fee.
Class time: 2% lecture, 20% discussion
Work load: 2 exams
Grade: 10% mid-semester exam(s), 10% final exam, 80% class participation
Exam format: multiple choice, fill in the blank

PE 1053 Ice Skating
(Sec 001, 002); 1 cr
Instructor: STAFF
This class is designed for beginning ice skaters. Equipment, safety issues, ice skating terminology, and other relevant information being taught. Fundamentals that will be covered include: basic turns, basic steps, balance techniques and various other skills from both the forward and backward positions. Skate rental is available on site.
Class time: 30% lecture, 70% laboratory
Work load: 2 exams
Grade: 20% mid-semester exam(s), 20% final exam, 10% written reports/papers, 50% class participation
Exam format: Multiple choice, fill-in-the-blank, short answer

PE 1055 Golf
(Sec 001-004); 1 cr
Instructor: STAFF
Proper grip, stance, ball address, swing, club selection, psychological management, rules, and etiquette. Basic instruction in analyzing, assisting with, and coaching golf.

PE 1059 Track and Field
(Sec 001); 1 cr
Instructor: STAFF
Track and Field is a beginning-level class. It is designed to introduce the student to the nature and significance of Track and Field. The following topics will be covered: conditioning and training, events and skills, strategies, track and field knowledge, equipment, and facilities and technology.
Class time: 10% lecture, 90% physical activity.
Work load: 15 pages of reading per week, 1 pages of writing per semester, 1 exams, 1 papers, presentations by students.
Grade: 20% final exam, 20% written reports/papers, 20% in-class presentations, 30% class participation, 10% , class attendance.
Exam format: Multiple choice, T/F, matching.

PE 1065 Tumbling and Floor Exercise
(Sec 001); 1 cr
Instructor: STAFF
This course is designed for individuals with little or no tumbling/spotting experience. Students will learn the fundamentals of basic tumbling skills including rolls, handstands, cartwheels, extensions, handsprings, and sommies (flips), accompanied by the appropriate spotting techniques. Students will also experience teaching a skill to a small group of classmates. Safety issues in tumbling and gymnastics will be addressed.
Class time: 15% lecture, 85%
Work load: 2-10 pages of reading per week, 1 exams, 2 performance evaluations, 1 project
Grade: 20% mid-semester exam(s), 20% final exam, 20% special projects, 40% class participation
Exam format: true/false, multiple choice, short answer

PE 1067 Basketball
(Sec 001); 1 cr
Instructor: STAFF
Participation-based course emphasizing basketball fundamentals such as passing, dribbling, shooting, as well as basic fast-break, offensive and defensive principles. Undergraduate and graduate students are encouraged to join the class. Students will scrimage at times and will be tested on the rules and basketball fundamentals they learn during the course.
Class time: 20% lecture, 5% discussion, 75%
Work load: 5-15 pages of reading per week, 5-7 pages of writing per semester, 2 exams, 1 papers
Grade: 20% mid-semester exam(s), 30% final exam, 20% written reports/papers, 30% class participation
Exam format: multiple choice, true/false, short answer

PE 1072 Soccer
(Sec 001); 1 cr
Instructor: STAFF
This is a beginning level class. The class is designed to introduce the student to the basic fundamentals of soccer. The following topics will be covered: sportsmanship both on and off the field, game rules, soccer terminology, participation and competition drills, fundamental soccer skills, understanding values derived from active participation, and practical instruction in strategy.
Class time: 15% lecture, 85% Physical activity and demonstrations
Work load: 15 pages of reading per week, 1 exams, 1 papers
Grade: 20% final exam, 20% written reports/papers, 60% lab work
Exam format: Multiple choice, true/false, matching

PE 1074 Beginning Volleyball
(Sec 001-005); 1 cr
Instructor: STAFF
This is an introductory course aimed at the beginning student in volleyball. Students will learn the fundamentals of the sport, including setting, serving, passing, and blocking. The course will also include an understanding of the rules and strategies involved in volleyball. Particular emphasis is placed in practical application of knowledge and game situations Text: "Volleyball: Steps to Success," Ferguson B. & Viera B., Leisure Press, 1989.
Class time: 10% lecture, 90% Practical practice and application
Work load: 0-30 pages of reading per week, 2 exams, practical testing.
Grade: 20% mid-semester exam(s), 35% final exam, 45% class participation

PE 1107 Intermediate Swimming
(Sec 001-003); prereq—1007 or equiv, proficient ability to swim 100 meters or instr consent; 1 cr
Instructor: STAFF
This course is designed to improve a swimmer's stroke proficiency and to develop an appreciation for aquatic safety principles. Students will: gain a more advanced understanding of the principles of hydrodynamics and stroke mechanics, develop greater proficiency in their strokes; demonstrate basic pool-side rescue techniques and use of pool safety equipment; gain an understanding of basic diving techniques and will demonstrate a satisfactory level of proficiency in diving skills, develop an understanding of competitive swimming and diving and will be able to perform starts and turns used; learn the principles of aquatic fitness; gain knowledge of opportunities which exist for competitive activities and for a lifetime enjoyment of aquatics. First day of class we do not swim. Enter through Rec Center main door.
Class time: 10% lecture, 90% in-pool practice
Work load: 30 pages of reading per week, 4 exams
Grade: 20% mid-semester exam(s), 20% final exam, 30% quizzes, 30% class participation

Exam format: written exams- multiple choice; practical exams- in-pool demonstration of skills

PE 1205 Scuba and Skin Diving

(Sec 001-005); prereq—1107 or equiv or instr consent; 1 cr
Instructor: Karl, Robert J
This course is available to all students and prospective students (through the College of Continuing Education) 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. There will be a $85 course fee.
Class time: 50% lecture, 50% laboratory
Work load: 30 pages of reading per week, 5 exams
Grade: 33% final exam, 33% quizzes, 33% class participation
Exam format: multiple choice

PE 1205 Scuba and Skin Diving

(Sec 001-005); prereq—1107 or equiv or instr consent; 1 cr
Instructor: Karl, Robert J
This course is available to all students and prospective students (through the College of Continuing Education) 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 open water 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. There will be a $85 course fee.
Class time: 50% lecture, 50% laboratory
Work load: 30 pages of reading per week, 5 exams
Grade: 33% final exam, 33% quizzes, 33% class participation
Exam format: multiple choice

PE 1306 Lifeguard Training

(Sec 001); prereq—[Proficiently swim 500 meters, at least 17 yrs old] or instr consent; 1 cr
Instructor: STAFF
Lifeguard training is a class for anyone aged 17 and older with a moderate to high swimming ability. The class covers current American Red Cross courses. Upon successful completion, certificates will be obtained in the following categories: American Red Cross Lifeguarding Today and first aid, CPR for the Professional Rescuer, and Waterfront Lifeguarding. Pre-course screening: 500-yard continuous swim using breaststroke, crawlstroke, and sidestroke, treading water for two minutes without use of hands, and retrieving a brick from a 7-foot depth in the water. There is a course fee of $30.00.
Class time: 25% lecture, 25% cctv, 25% discussion, 25% hands-on skill
Work load: 4 exams
Grade: 25% mid-semester exam(s), 25% final exam
Exam format: multiple choice, essay

PE 1411 Water Safety Instructor

(Sec 001); prereq—[Proficiency in basic strokes, completion of skill/written pre tests] or instr consent; 2 cr
Instructor: STAFF
The water safety instructor course teaches the basics needed to be a successful water safety instructor. This course meets four hours per week for 9 weeks. In addition, students are required to practice teach outside of class a total of 10 hours. Practice teaching arrangements are done for the students. A proficient swimming ability is needed. All students must pass a pre-course skills test demonstrating the 5 basic strokes. 30% of the class time is spent in the water with the rest in the classroom. There are several required readings and books. There is no specific target audience other than good swimming ability.
Class time: 30% lecture, 10% cctv, 30% discussion, 30% pool time
Work load: 30 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers, 5 lesson plans, 2 block plans
Grade: 10% mid-semester exam(s), 30% final exam, 10% written reports/papers, 10% special projects, 30% in-class presentations, 10% class participation
Exam format: multiple choice 90%, essay 10%

Physical Medicine and Rehabilitation

500 Boynton Health Service (Box 297 Mayo). 612-626-4050

PMed 1002 Orientation to Physical Therapy

(Sec 001); S-N only; 1 cr
Instructor: STAFF
PMed 1002, Orientation to Physical Therapy is a survey course designed to provide information about physical therapy as a career choice. Lecture topics include physical therapy practice areas of pediatrics, geriatrics, sports medicine, orthopedics and neurological rehabilitation. Lectures on history, general practice issues, patient perspectives, career specialization, pre-requisite courses, clinical exposure and admissions are also included. Students are required to write summaries of selected lectures and to complete a short essay examination.

Physics

148 Tate Laboratory of Physics. 612-624-7375

Phys 1001W Energy and the Environment

(Sec 100); prereq—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; 4 cr
Instructor: STAFF
Energy and the Environment. 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. 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. The course may include visits to local power plants, guest speakers on renewable energy sources, and films of nuclear power accidents. An interactive web page includes a variety of energy and environmental resources. 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.
Class time: 60% lecture, 10% discussion, 30% laboratory
Work load: 30 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers, 10 laboratory reports
Grade: 15% mid-semester exam(s), 30% final exam, 20% written reports/papers, 10% quizzes, 25% lab work
Exam format: A combination of short written statements, multiple choice, and short calculations
Course URL: www.physics.umn.edu

Phys 1101W Introductory College Physics I

(Sec 100, 200); prereq—High school algebra, plane geometry, trigonometry; primarily for students interested in technical areas; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
Phys 1101W/1102W 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 infor-

mation. To achieve these goals, this course requires you to understand the material in depth; we will go at a pace which should make that possible. This is not a survey of all physics. Phys 1101W will emphasize the dynamics approach to physics with the description of motion of interacting objects and the forces that they exert on each other. We don't assume that you have taken previous physics courses. But it is assumed that you are able to do algebra, including solving quadratic and simultaneous equations, interpret simple graphs, and know some basic geometry, especially the geometry of triangles; the use of sine, cosine, and tangent; and the Pythagorean theorem. A lab is included to allow you to apply both the concepts and problem solving skills taught in this course to the real world. It will also emphasize technical communications skills. A rec sec will give you the opportunity to discuss your conceptual understanding and practice your problem solving skills. The workload/grade/effort percentages in this document are subject to change on the syllabus.

Class time: 45% lecture, 25% discussion, 30% laboratory

Work load: 20 pages of reading per week, 20 pages of writing per semester, 5 exams, 7 lab reports

Grade: 30% mid-semester exam(s), 30% final exam, 10% written reports/papers, 15% quizzes, 10% lab work, 5% problem solving

Exam format: A combination of short written statements, multiple choice and quantitative problem solving.

Course URL: www.physics.umn.edu

Phys 1201W Introductory Physics for Pre-Medicine and Biology I

(Sec 100); prereq—[High school or college] calculus, trigonometry, algebra; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; 5 cr

Instructor: STAFF

This 2 semester course is designed primarily for premed and biological > sciences students. A course in calculus taken previously or simultaneously is strongly > recommended, but the essential calculus will be developed as the course proceeds. We will begin with a discussion of the scientific method, measurements, and the language of physics. Then comes the study of the interactions of mechanical systems with applications extending to objects with complex shapes (rotations), flexible objects (vibrations), and fluids. The importance of energy transfer between objects in a system and between systems will be considered within the framework of thermodynamics.

Class time: 70% lecture, 30% discussion

Work load: 15-20 pages of reading per week, 3 exams, 12 problem sets

Grade: 35% final exam, 10% written reports/papers, 35% quizzes, 5% lab work, 15% problem solving

Exam format: Problems

Course URL: www.physics.umn.edu

Phys 1202W Introductory Physics for Pre-Medicine and Biology II

(Sec 100); prereq—1201; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; 5 cr

Instructor: STAFF

This is the continuation of Physics 1201W designed primarily for premed and biological sciences students. The course will begin with the study of electricity and magnetism, then continue to study waves, light, modern physics, and the structure of matter.

Class time: 70% lecture, 30% laboratory

Work load: 15-20 pages of reading per week, 5 exams, 12 problem sets

Grade: 35% final exam, 10% written reports/papers, 35% quizzes, 5% lab work, 15% problem solving

Exam format: Multiple choice and problems

Course URL: www.physics.umn.edu

Phys 1301W Introductory Physics for Science and Engineering I

(Sec 100, 200, 300, 400, 500); Credit will not be granted if credit has been received for: PHYS 1401, PHYS 1401V; prereq—=Phys 1401; concurrent enrollment Math 1271 or Math 1371 or Math 1571; meets CLE req of Physical Sciences/Lab Core; meets CLE req of Writing Intensive; 4 cr

Instructor: STAFF

This is the first of a three semester introductory course in physics for students in sciences and engineering. 1301/1302/2303 or 2503 is designed to prepare you for work in your field by: building a solid conceptual understanding of real world applications based on a few fundamental principles of physics; practicing solving 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; we will go at a pace which should make that possible. The emphasis will always be on the application of physics principles to real-life situations, and a large fraction of the problems will be designed to simulate such situations. 1301 will emphasize the application of physics to mechanical systems beginning with the description of motion of interacting objects and the forces that they exert on each other. Conservation ideas will also be used to describe the effect of interactions on systems of objects. This course assumes a background equilivant to high school physics and some familiarity with calculus. Both physics and calculus concepts used in this course will be explained as they are introduced. It will also emphasize technical communications skills.

Class time: 50% lecture, 20% discussion, 30% laboratory, A laboratory is included to allow you to apply both the concepts and problem solving skills taught i

Work load: 15 pages of reading per week, 30 pages of writing per semester, 5 exams, 7 lab reports; In the laboratory and recitation sections, there will be a strong emphasis on group p

Grade: 35% final exam, 10% written reports/papers, 45% quizzes, 5% lab work, 5% , homework or in class questions

Exam format: A combination of quantitative problem solving and short qualitative statements or multiple choice.

Course URL: www.physics.umn.edu

Phys 1302W Introductory Physics for Science and Engineering II

(Sec 100, 200); Credit will not be granted if credit has been received for: PHYS 1402, PHYS 1402V; prereq—=1402; 1301, concurrent enrollment Math 1272 or Math 1372 or Math 1572; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; 4 cr

Instructor: STAFF

This is the 2nd of a 3 semester intro course in physics for students in science and engineering. 1302W discusses the application of physics to electrical and magnetic systems. 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. Some emphasis will be given to the application of physics principles to real-life situations, and a fraction of the problems will be 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 rec section will give you the opportunity to discuss your conceptual understanding and practice your problem solving skills. In the lab and rec sections, there will be a strong emphasis on group problem solving as a powerful learning tool and as a preparation for work in your profession.

Class time: 50% lecture, 20% discussion, 30% laboratory

Work load: 15 pages of reading per week, 30 pages of writing per semester, 5 exams, 7 lab reports

Exam format: A combination of quantitative problem solving and short qualitative statements or multiple choice

Course URL: www.physics.umn.edu

Phys 1401V Honors Physics I

(Sec 001-005, 010-016); Credit will not be granted if credit has been received for: PHYS 1301, PHYS 1301W; prereq—credit will not be granted if credit received for: 1301; selection for IT honors or consent of IT honors office; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr

This is the first of a three semester introductory course in physics for students in the IT Honors Program. 1401V/1402V/2403H is designed to prepare you for work in your field by: having a 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. This course requires you to understand the material in depth; it will go at a pace faster than Physics 1301W and at a higher mathematical level. The emphasis will always be on the application of physics principles to interesting situations, and a large fraction of the problems will be designed to simulate such situations. 1401V will emphasize the application of physics to mechanical systems beginning with the description of motion of interacting objects and the forces that they exert on each other. Conservation ideas will also be used to describe the effect of the interaction on systems of objects. These fundamental ideas will be applied to complex systems such as continuous

material, fluids, and gasses. This course assumes a background equivalent to high school physics and some familiarity with calculus. Students should have the ability and desire to use mathematics not yet introduced in math class.
Class time: 50% lecture, 20% discussion, 30% laboratory
Work load: 20 pages of reading per week, 30 pages of writing per semester, 7 exams, 7 labs
Grade: 45% mid-semester exam(s), 20% final exam, 10% written reports/papers, 5% class participation, 20% lab work
Exam format: A combination of quantitative problem solving and short qualitative statements or multiple choice
Course URL: www.physics.umn.edu

Phys 1905 Freshman Seminar: Realistic Motion: Animation and Physics

(Sec 003); A-F only; prereq—Fr with no more than 24 cr; 2 cr
Instructor: Border, Pete Mac
Realism in game design and animation requires more than just gorgeous stills—objects must also move in a convincing and realistic fashion. This course will explore the physics required to simulate motion accurately. We will cover the standard topics of mechanics through collisions and 3D rotations, with extensive use of computer-aided 3D simulation. Students will be required to produce their own animation scripts on a computer, and the grade will depend on a project on a topic chosen by the student. Students will be taught enough python to write scripts for vpython or blender, though they may also use other systems if they wish. Access to a computer is required.
Class time: 25% lecture, 25% discussion, 50% laboratory
Work load: 30 pages of reading per week, 10 pages of writing per semester, 5 hours per week programming
Grade: 25% final exam, 50% special projects, 25% in-class presentations
Exam format: Written problems
Course URL: www.physics.umn.edu

Phys 1905 Freshman Seminar: What is Everything Made Of?

(Sec 005); A-F only; prereq—Fr with no more than 24 cr; 2 cr
Instructor: Heller, Kenneth J **!!Geo Taylor/IT Alumni Soc Award, Distinguished Research!!**
We all know that the everyday objects around us are made of atoms. The atoms are themselves made of electrons and a nucleus with lots of space in between. The nuclei are made of protons and neutrons. But what are the protons, neutrons, and electrons made of? Does this chain of smaller and smaller bits of matter go on forever? What about space? Is it really empty, or is it made of something? There are less common objects in our Universe: cosmic rays, black holes, antimatter. Are they made of the same stuff as a chair? This seminar will allow you to investigate the latest results, theories, and speculations from the frontiers of physics in a very qualitative manner.
Math Level: High School Algebra
Class time: 100% discussion
Work load: 20 pages of reading per week, 1 papers
Grade: 75% special projects, 25% class participation
Course URL: www.physics.umn.edu

Phys 1905 Freshman Seminar: Science in Comic Books

(Sec 010); A-F only; prereq—Fr with no more than 24 cr; 2 cr
Instructor: Kakalios, James
This seminar class will discuss basic principles of physics and chemistry as illustrated by their correct application in comic books. We will discuss how large the gravity on Krypton must have been in order to enable someone on earth to leap tall buildings in a single bound. The principle of conservation of energy will be illustrated by considering the super speedster, the Flash. Are any of the x-men's powers realistic? Plausible? Possible? And why can't Superman change history when he travels through time? After you learn what would really happen if you were bitten by a radioactive spider, you'll want to sleep with the lights on!
Class time: 30% lecture, 70% discussion
Work load: 10 pages of reading per week, 20 pages of writing per semester, 2 papers
Grade: 30% written reports/papers, 30% in-class presentations, 40% class participation
Exam format: Written reports and in-class presentations.
Course URL: www.physics.umn.edu

Phys 2303 Physics of Matter

(Sec 001); Credit will not be granted if credit has been received for: PHYS 2403, PHYS 2403H, PHYS 2403V; prereq—credit will not be granted if credit received for: Phys 2403 or 2601; 1302, [Math 1272 or Math 1372 or Math 1572]; 4 cr
Instructor: STAFF
This is the continuation of a three semester introductory course in physics for students in sciences and engineering. 1301W/1302W/2303 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; we will go at a pace which should make that possible. The emphasis will always be on the application of physics principles to real-life situations, and a large fraction of the problems will be designed to simulate such situations. 2303 will emphasize the applications of physics which have been important in the 20th century. This includes both mechanical and electromagnetic waves, introduction to thermodynamics, optics, special relativity, quantum theory and applications of the quantum nature of solids. This course assumes a good working knowledge of the concepts and skills in 1302W. Because of the nature of this material, this course will be more abstract and mathematical than 1302W.
Class time: 90% lecture, 10% discussion
Work load: 20 pages of reading per week, 5 exams
Grade: 45% mid-semester exam(s), 40% final exam, 15% problem solving
Exam format: A combination of quantitative problem solving and qualitative questions
Course URL: www.physics.umn.edu

Phys 2403H Honors Phys III

(Sec 001); Credit will not be granted if credit has been received for: PHYS 2303, PHYS 2303; prereq—Phys 1453H, selection for IT honors or consent of IT honors office; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: STAFF
A con't of a 3-semester intro course in phys for students in the IT Honors Program. 1401/02/2403 is designed to prepare for work in your field by: having a solid conceptual understanding of the way the real world works based on a few fundamental principles of phys; being able to solve realistic problems using logical reasoning/quantitative problem solving skills; applying those phys concepts/problem solving skills to new situations; and learning to effectively communicate technical information. This couse requires you to understand the material in depth; we will go at a faster pace than Physics 2303 and at a higher math level. The emphasis will be on the application of phys principles to interesting situations, and some of the problems will be designed to simulate such situations. 2403 will emphasize the application of phys which have been important in the 20th century; including electromagnetic wares, optics, special relativity & quantum theory. This course assumes a good working knowledge of the concepts/skills in 1402. A lab is included to allow you to apply both the concepts and problem solving skills taught in this course to the real world. Also emphasized are technical communications skills. A rec sect will give you the opportunity to discuss your conceptual understanding/practice your problem solving skills. In the lab/rec sect, there will be a strong emphasis on group problem solving both as a learning tool and as prep for in your profession.
Class time: 80% lecture, 20% discussion
Work load: 20 pages of reading per week, 5 exams, 7 lab reports
Grade: 55% mid-semester exam(s), 45% final exam
Exam format: a combination of quantitative problem solving and qualitative questions.
Course URL: www.physics.umn.edu

Phys 2503 Modern Physics Principles

(Sec 001); prereq—credit will not be granted if credit received for: Phys 2403V; Phys 1302W, [Math 1272 or Math 1372 or Math 1572]; 4 cr
Instructor: STAFF
The course is a continuation of the 1301 and 1302 calculus based physics sequence. The course will cover three main topics: thermodynamics, waves, and special relativity. The course is introductory in the sense that students are not expected to have prior knowledge of the topics studied, but it will rely extensively on the fundamental physical principles covered in the previous physics courses.
Class time: 100% lecture
Work load: 10 pages of reading per week, 4 exams
Grade: 35% mid-semester exam(s), 40% final exam, 25% problem solving

Exam format: Multiple choice questions and problems to solve
Course URL: www.physics.umn.edu

Phys 3071W Laboratory-Based Physics for Teachers
(Sec 001); prereq—College algebra; meets CLE req of Physical Science/ Lab Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course is intended to provide a rich, hand-on experience in a selection of elementary physics material especially chosen to be useful for potential elementary teachers. The course is activity-based (performing experiments and working with computers) and discussion-oriented (discussing ideas with your classmates)with four major goals: (1) to help you construct a set of physics ideas that you can apply to explain phenomena that are intrinsically interesting at a level appropriate to an elementary school science curriculum; (2) to help you develop more positive attitudes about science; (3) to help you learn the nature of science, so you will have more confidence in your ability to do science, and (4) to help you become more aware of, and more in control of, your own learning. You will find many of our teaching and learning strategies valuable and appropriate for you to use when you begin your teaching career.
Class time: 5% lecture, 10% discussion, 85% laboratory
Work load: 4 exams, 3 papers
Grade: 40% mid-semester exam(s), 20% final exam, 30% written reports/ papers, 10% problem solving
Exam format: In class problems

Phys 4001 Analytical Mechanics
(Sec 001); prereq—2601, Math 2263 or Math 2374 or Math 3574; 4 cr
Instructor: STAFF
Analytic course in Newtonian mechanics. The course will emphasize a mathematically sophisticated reformulation of Newtonian mechanics. Mathematics beyond prerequisites developed as required.
Class time: 80% lecture, 20% discussion
Work load: 15 pages of reading per week, 3 exams, 13 problem sets
Grade: 44% mid-semester exam(s), 28% final exam, 28% problem solving
Exam format: Quantitative problems
Course URL: www.physics.umn.edu

Phys 4051 Methods of Experimental Physics I
(Sec 001); prereq—2605 or equiv lab experience or instr consent; 5 cr
Instructor: STAFF
This course is the first of a two semester sequence on the techniques used in a modern laboratory. Because of the importance of electronic instrumentation, the first semester of the laboratory will deal with the use of digital and analog techniques for acquiring electronic signals and on computer interfacing to prepare those signals for analysis. In addition the course develops the techniques of writing scientific research reports suitable for publication. It is designed for science and engineering students who have successfully completed Physics 2605 or the equivalent. Although required for upper division Physics and Astronomy students, this course is also an excellent introduction to modern laboratory techniques for upper division and graduate students in other scientific or technological fields.
Class time: 35% lecture, 10% discussion, 55% laboratory
Work load: 30 pages of reading per week, 30 pages of writing per semester, 2 exams, 6-8 hours of laboratory work per week
Grade: 10% mid-semester exam(s), 20% final exam, 50% written reports/ papers, 20% lab work
Exam format: Quantitative and qualitative problems.
Course URL: mxp.physics.umn.edu

Phys 4101 Quantum Mechanics
(Sec 001); prereq—2601; 4 cr
Instructor: STAFF
This is an intermediate course in Quantum mechanics. It will focus on the Schrodinger Equation in one and three dimensions, the quantum mechanical treatment of angular momentum and spin. The course will also introduce approximation methods such a Perturbation Theory and the Variational Technique. Applications such as scattering will also be discussed.
Class time: 90% lecture, 10% discussion
Work load: 20 pages of reading per week, 3 exams, 1 homework set per week
Grade: 30% mid-semester exam(s), 40% final exam, 30% problem solving
Exam format: Quantitative problems
Course URL: www.physics.umn.edu

Phys 4121 History of 20th-Century Physics
(Sec 001); Same as: HSCI 4121; prereq—credit will not be granted if credit received for: HSci 4121; general physics or instr consent; 3 cr
Instructor: Janssen, Michael HP
This course is an introduction to the work of historians and philosophers of science trying to trace the conceptual development of 20th-century physics. Our main focus will be on the development of relativity theory (both special and general) and quantum theory in the first quarter of the century. Special attention will be paid to the contributions of Albert Einstein. We will also study some episodes in the further developments of these fields: in nuclear physics in the 1930s, in particle physics in the 1970s, in both cases with special attention to the interplay between theory and experiment. Finally, we will look at the development of big bang cosmology and its marriage with particle physics in inflationary cosmology. Readings are taken from a variety of sources. General surveys are used to get us started on a particular topic. That will prepare us for more specialized literature in history and philosophy of science. We will also read (passages from) some of the seminal texts written by the physicists we will study, both to get some of the flavor of their work and to evaluate interpretations and reconstructions of these texts offered in the historical and philosophical literature. The course is aimed at upper-level undergraduate and graduate students in physics, history of science, and philosophy of science, but should be of interest to other students with a strong interest in 20th-century physics as well.
Class time: 90% lecture, 10% discussion
Work load: 100 pages of reading per week, 30 pages of writing per semester, 3 exams, 1 papers, paper for graduate students only
Grade: 10% class participation, 90% , take-home essays/paper (grad students)
Exam format: Take-home essay

Phys 4201 Statistical and Thermal Physics
(Sec 001); prereq—2601; 3 cr
Instructor: STAFF
This is a course in thermodynamics and statistical mechanics in which the properties of materials are developed using a microscopic statistical point of view. In this couse, the basic definitions and concepts of statistical physics, temperature, entropy, free energy, partition function, grand partition function, etc., will be developed in-depth. Students are expected to be upper division physics majors, beginning graduate students in physics, or other physical sciences and engineering students.
Class time: 90% lecture, 10% discussion
Work load: 20 pages of reading per week, 3 exams, 1 homework set per week
Grade: 30% mid-semester exam(s), 40% final exam, 30% problem solving
Exam format: quantitative and qualitative problems
Course URL: www.physics.umn.edu

Phys 4611 Introduction to Space Physics
(Sec 001); prereq—2601, 4001, 4002; 3 cr
Instructor: STAFF
An introduction to the study of space plasma physics. Topics will include basic plasma physics, particle acceleration in space plasmas, the aurora on Earth and other planets, magnetic reconnection, solar physics, planetary magnetospheres, plasma and MHD waves, the solar wind. There will be several textbooks and readings from current journal articles.
Class time: 75% lecture, 20% discussion, 5%
Work load: 15 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers, 1 oral report
Grade: 15% mid-semester exam(s), 25% final exam, 20% written reports/ papers, 20% in-class presentations, 20% problem solving
Course URL: www.physics.umn.edu

Phys 5001 Quantum Mechanics I
(Sec 001); prereq—4101 or equiv; 4 cr
Instructor: STAFF
Part I of a year-long course sequence in quantum mechanics for first-year graduate students in physics and other fields. Familiarity with quantum mechanics at the level of an upper division undergraduate physics course in the subject, such as Physics 4101, will be assumed. The course will include such topics as the Schroedinger Equation and the general formalism of quantum mechanics, bound state and scattering problems in one and three dimensions, angular momentum, the hydrogen atom, approximation methods in stationary and time dependent problems, and the interaction of electromagnetic radiation with atoms.
Class time: 75% lecture, 25% discussion
Work load: 15 pages of reading per week, 3 exams
Grade: 30% final exam, 45% quizzes, 25% problem solving
Exam format: problems to be solved
Course URL: www.physics.umn.edu

Phys 5011 Classical Physics I
(Sec 001); prereq—4001, 4002 or instr consent; 4 cr
Instructor: STAFF
This is the first semester in a year-sequence of Classical Physics intended primarily for first-year graduate students. Preparation at the level of Phys 4001-4002 is assumed. Classical Mechanics including hydrodynamics, nonlinear phenomena, and relitivity are covered in the fall semester.
Class time: 80% lecture, 20% discussion
Work load: 40 pages of reading per week, 3 exams, 14 problem sets
Exam format: possibly some questions to be discussed
Course URL: www.physics.umn.edu

Phys 5041 Analytical and Numerical Methods of Physics I
(Sec 001); prereq—Grad or instr consent; 4 cr
Instructor: STAFF
The course aims to introduce the students to analytical and numerical mathematical methods and their application in physics. The course will cover basic material like complex analysis, Fourier transforms, differential equations, probabilities, asymptotic analysis. Computational methods will be discussed, such as Mathematica—symbolic calculations with a computer. An additional goal of the course will be to expose the students to applications of these methods in contemporary research.
Class time: 90% lecture, 10% discussion
Work load: 30 pages of reading per week, 2 exams, 1 problem set each week
Grade: 25% mid-semester exam(s), 25% final exam, 50% problem solving
Exam format: problem solving
Course URL: www.physics.umn.edu

Physiology
6-125 Jackson Hall; 612-625-5902

Phsl 1001 Human Physiology
(Sec 001); prereq—high school chem, high school biol; 3 cr
Instructor: Bloom, George R
Basic Human Physiology (1001) is primarily for non-science majors who are interested in how their own bodies work. It is a survey of how the major organ systems function including nerve, muscle, circulation, respiration, endocrine, renal, gastrointestinal, temperature regulation and energy metabolism. Emphasis on function in terms of mechanism; presented in terms of the ideas and methods of science, however, a scientific background is not assumed. This class is only offered fall semester.

Phsl 3051 Human Physiology
(Sec 001); prereq—1 yr college biol, 1 yr college chem; 4 cr
Instructor: Bloom, George R
Principles of Human Physiology is primarily for students in the Pre-Allied Health Science majors such as Nursing, Physical Therapy, etc Two quite different versions of the course are offered. Some students love the Fall format, some hate it. If you are selecting the Fall course because it fits your schedule more easily, I would discourage this choice. The reduced lecture format works out better for those students who truly like to study on their own; more contact is available in the traditional lecture format. The lab is the same for both versions. However lab is given immediately following the lectures in the Fall. This can be a long three hours. Call to discuss your registration if you have any doubts. It is a survey of the major organ system function including nerve, muscle, circulation, respiration, endocrine, renal, gastrointestinal and energy metabolism. In the fall course offering, we make extensive use of e-mail for the exchange of information. The Web is used as an information repository. There is only one lecture hour on special topics, discussion, and three exams. The lecture is followed by a traditional 2-hr lab. The student is responsible for learning the material from the textbook. This requires good reading skills and good judgement, as well as use of the on-line interchange by e-mail. The fall class is best suited for self-motivated students who like to learn independently. The spring course offering is a traditional day class format.

Phsl 3095 Problems in Physiology
(Sec 001); max crs 20; 20 repeats allowed; prereq—concurrent enrollment in college physiology, instr consent; 1-5 cr
Instructor: Bloom, George R
Individualized study in physiology. Students will address a selected problem in physiology through library or laboratory research under the guidance of Physiology faculty. This course may stand alone or be used to augment other regular courses in physiology.

Phsl 4095 Honors Problems in Physiology
(Sec 001); max crs 4; A-F only; prereq—concurrent enrollment 3071, physiology honors candidate, director of undergraduate studies in physiology consent; meets HON req of Honors; 2-4 cr
Instructor: Bloom, George R
Honors students in physiology pursue a selected topic in physiology on an individual basis through library or laboratory research under the guidance of physiology faculty. Open only to undergraduate honors candidates in physiology. Not suitable for graduate credit.

Plant Biology
220 Biological Sciences Center; 612-625-1234

PBio 4321 Taxonomy of Minnesota Flora
(Sec 001); prereq—Biol 2022 or Biol 3007; 3 cr
Instructors: Cushing, Edward J; Wetmore, Clifford M
The identification of common vascular plants of Minnesota and surrounding region. Emphasis is on the use of technical keys and comparison with herbarium specimens rather than on-sight recognition. By the end of the course, students should be able to (1) Describe an unknown plant with proper morphological terms; (2) Identify the plant to species from the keys and descriptions given in Gleason & Cronquist's "Manual"; and (3) Explain how it differs from similar species. They should also know the distinguishing characteristics of the most common plant families and selected genera. Both native and naturalized species are used as examples. Students are expected to describe, identify, press, and label 30 plants that they have collected in the field. Ten of those are to be mounted in the form required of voucher specimens to be deposited in a herbarium. One 1-hour lecture and two 2-hour labs per week. One Saturday field trip is required. Laboratory sessions will include a survey of common plant families, the practice identification of unknown plants, occasional field trips on or near campus, and time to identify personal collections with the instructor's supervision. Textbooks: (1) Smith, J.P. Jr., 1977, "Vascular Plant Families"; (2) Gleason, H.A. & Cronquist, A., 1995. "Manual of Vascular Plants of Northeastern United States and Adjacent Canada." A hand lens is also required.
Class time: 18% lecture, 73% laboratory, 9% field trip
Work load: 15 pages of reading per week, 15 pages of writing per semester, 2 exams, 0 papers, 30 plant specimens collected and identified
Grade: 30% mid-semester exam(s), 20% final exam, 15% quizzes, 35% lab work
Exam format: short answer
Course URL: webct.umn.edu

PBio 4993 Directed Studies
(Sec 001); max crs 7; 7 repeats allowed; S-N only; prereq—instr consent, dept consent; 1-7 cr
Instructor: STAFF
Contract between student and advisor required, plus department approval. Credits arranged.

PBio 5301 Plant Genomics
(Sec 001); Same as: PLPA 5301; prereq—[Intro course in genetics, intro course in biochemistry] or instr consent; 3 cr
Instructor: Young, Nevin Dale
Plant genomics is intended for graduate students and advanced undergraduates interested in recent discoveries and emerging technologies in genomics, proteomics, and bioinformatics applied to the study of plants. Students will learn strategies for structural and functional genomic analysis by exploring the genomes of model prokaryotes and eukaryotes, comparative genomics among cereals, organization of disease resistance gene clusters, microarray and DNA chip expression systems, and transposon-based gene tagging. Students also learn the fundamentals of nucleic acid sequence analysis, databasing, and data-mining, especially through individual projects focused on a topic chosen by the student. Lectures, discussions, and small group activities will be complemented by field trips and guest scientists.
Class time: 50% lecture, 25% discussion, 25% Small group activities and field trips
Work load: 20 pages of reading per week, 10 pages of writing per semester, Computer/datamining project
Grade: 25% special projects, 50% quizzes, 25% problem solving
Exam format: Four quizzes throughout the semester, each consisting of 4-6 short answer questions.

Plant Pathology

304 Borlaug Hall 612-625-8300

PlPa 1002 Plant Diseases and Your Garden
(Sec 001); 2 cr
Instructor: Mac Donald, David H !!COAFES Distinguished Teaching Award!!
Every gardener and even gardeners who are plant pathologists would like their time and efforts in their gardens to result in healthy, productive and/or attractive plants. But many things can cause plants to be unhealthy, unproductive, and/or unattractive. Plant diseases, as a natural part of the real world garden, are one of those "things". This course will help you to learn to recognize if a plant is deseased. And if it is in fact diseased, then the effects of its disease, its symptom or symptoms, can often be used to identify the most likely cause or causes of that disease. Once you know, for example, that a fungus is probably the cause of the disease, then you will want and need to know some of the impoortant characteristics of fungi in order to be able to understand why the disease occurred and what you can do to avoid, prevent, or control the disease in the future. In this class you will learn to recognize symptoms of plant disease, the important characteristics of causes of plant disease and the identification and management of 18 representative diseases of garden plants. This course provides information of interest to non-horticulture undergraduates and others who are interested in healthy plants and gardens. It does not meet the plant pathology requirements for horticulture majors.
Class time: 30% lecture, 60% laboratory, 10% Quizzes and exams and their critique
Work load: 15 pages of reading per week, 36 pages of writing per semester, 1 exams, 3 quizzes (2 are take-home)
Grade: 26% final exam, 43% quizzes, 31% , Plant disease notebook
Exam format: Multiple choice-short answer

PlPa 3002 Air Pollution, People, and Plants: The Science and the Ethics
(Sec 001); prereq—Biol 1009 or equiv, Chem 1021, concurrent enrollment Chem 1022; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Environment Theme; 3 cr
Instructors: Krupa, Sagar V; Herzfeld, Dean
Although air pollution has been prevalent since nomadic times, its proliferation has been a result of the industrial revolution. Today it is widely known that human influence has adversely affected the beneficial ozone layer in the upper atmosphere (the ozone hole) and has affected our climate (perhaps global warming). Besides these concerns, air pollution can negatively impact our health and our welfare (e.g., crops and forests). As developed nations attempt to curb air pollution, developing nations will have the difficulty achieving the same results due to minimal resources and enormous obstacles (population growth, e.g., India and poverty, illiteracy and starvation). Thus, as we start the 21st century, we need to learn more about the complexities of air pollution, global climate change, and their impacts on human health and welfare in order to stimulate greater societal response at local, national and international levels. Course topics include; 1) the earth we live on and our climate; 2) how does air pollution alter our climate, human health, crops and forests?; 3) how can we control air pollution and global climate change at the international level?; 4) how do we perceive and assess risk?; 5) how do the overall issues relate to public ethics and decision making?. The target audience includes undergraduate, non-majors and majors (meets requirements of College of Ag. and CLE Environmental and CLE Citizenship/Public Ethics themes).
Class time: 75% lecture, 25% discussion
Work load: 20 pages of reading per week, 4 exams
Grade: 100% quizzes
Exam format: very brief answers and short essays
Course URL: www.plpa.agri.umn.edu/courses/plpa3002

PlPa 3090 Research in Plant Pathology
(Sec 001); max crs 4; 2-4 cr
Instructor: STAFF
Assignment of a special problem to undergraduates desiring an opportunity for independent research in plant pathology. The student determines the problem.
Class time: 100% laboratory
Work load: research paper
Grade: 100% lab work

PlPa 4096 Professional Experience Program: Internship
(Sec 001); max crs 6; 6 repeats allowed; S-N only; prereq—COAFES undergrad, complete internship contract available in COAFES Career Services before registering; UC only; 1-3 cr
Instructor: STAFF
Supervised practicum professional experience in plant pathology. Practicum may be completed in government, higher education or private industry setting. Directed toward senior undergraduates.
Grade: 100% , Job performance, self-evaluation

PlPa 5090 Issues in Plant Pathology
(Sec 001); max crs 4; 2-4 cr
Instructor: STAFF
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.
Class time: 50% lecture, 50% discussion
Work load: depends on topic and instructor
Grade: 100% special projects, depends on topic and instructor

PlPa 5102 Epidemiology and Genetics of Host-Parasite Interactions
(Sec 001); A-F only; prereq—[5201 or equiv], GCD 3022; 3 cr
Instructors: Kinkel, Linda Lee; Steffenson, Brian Joel
This course covers concepts and methodology in the quantitative study of plant disease epidemics and host plant resistance. Disease assessment, analysis of disease in time and space, models for epidemic progress, environmental influences on epidemic development, crop loss assessment, disease forecasting, and ecology of host-parasite interactions will be covered in the first section of the course. The second section of the course will address the history, sources, inheritance, and durability of plant disease resistance and examine various strategies in using host resistance in disease management. Emphasis will be placed on a synthesis of information as necessary in the development of programs aimed at environmentally sound plant disease management strategies and the effective use of resistance for disease control. Students will be expected to read and critically evaluate scientific literature and actively participate in class discussions.
Class time: 75% lecture, 25% discussion
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams
Grade: 50% mid-semester exam(s), 30% final exam, 20% written reports/papers
Exam format: essay

PlPa 5201 Biology of Plant Diseases
(Sec 001); prereq—Biol 1009 or equiv; 4 cr
Instructors: Percich, James Angelo; Mac Donald, David H !!COAFES Distinguished Teaching Award!!
Principles and concepts of plant diseases caused by abiotic plant stress selected fungi, bacteria, viruses and nematodes. In-depth presentation of pathogen biology (life cycles) and factors that influence disease (pathogen virulence, host susceptibility and environment); and interaction of pathogens with plants (physiology, defense mechanisms and genetics). Epidemiology (disease forecasting and dynamics) and control (integrated biological and chemical) measures appropriate to plant disease. The laboratories will present experimental approaches emphasizing plant pathogen identification, isolation, culture, inoculation, and recovery from infected plants. Plant pathogen interactions illustrating pathogenesis and plant defense mechanisms will be studied.
Class time: 50% lecture, 50% laboratory
Work load: 25 pages of reading per week, 3 exams, 1 papers
Grade: 40% mid-semester exam(s), 20% final exam, 20% written reports/papers, 20% lab work
Exam format: essay

PlPa 5203 Biology and Ecology of Fungi
(Sec 001); prereq—Biol 1009 or equiv; 3 cr
Instructors: Groth, James Vernon; Percich, James Angelo
A survey of the fungal kingdom and its allies including recognition of all major groups of fungi, their important roles in ecosystems and in the affairs of humans, their environmental and nutritional needs, and their modes of dissemination and survival. Representative species of fungi will be observed and manipulated in the laboratory. Students completing this course should be able to: 1) Recognize the major groups of fungi down to the ordinal level; be familiar with macro- and microscopic morphological structures through examination of selected species of fungi. 2) Understand environmental and nutritional requirements of fungi in culture and in nature. 3) Briefly define the compatibility systems (and their genetic implications) operative in selected groups of fungi. 4) Recognize varied

modes of spore dissemination relative to survival strategy. 5) Understand fundamental phylogenetic relationships between fungi; contrast phylogenetic taxonomy with artificial systems of taxonomy. 6) Effectively locate and use appropriate references for manipulation or identification of fungi. 7) Understand the role of fungi in natural history and in human affairs. For graduate and upperdivision undergraduate students in any major.
Class time: 30% lecture, 5% discussion, 60% laboratory, 5% Films
Work load: 20 pages of reading per week, 3 exams, One Fungel Profile workbook
Grade: 85% mid-semester exam(s), 15% special projects
Exam format: Multiple choice, matching, short answer
Course URL: www.crc.agri.umn.edu/~jamesg/mygmain.html

PlPa 5301 Plant Genomics
(Sec 001); Same as: PBIO 5301; prereq—Intro course in genetics or instr consent; 3 cr
Instructor: Young, Nevin Dale
Plant genomics is intended for graduate students and advanced undergraduates interested in recent discoveries and emerging technologies in genomics, proteomics, and bioinformatics applied to the study of plants. Students will learn strategies for structural and functional genomic analysis by exploring the genomes of model prokaryotes and eukaryotes, comparative genomics among cereals, organization of disease resistance gene clusters, microarray and DNA chip expression systems, and transposon-based gene tagging. Students also learn the fundamentals of nucleic acid sequence analysis, databasing, and data-mining, especially through individual projects focused on a topic chosen by the student. Lectures, discussions, and small group activities will be complemented by field trips and guest scientists.
Class time: 50% lecture, 25% discussion, 25% Small group activities and field trips
Work load: 20 pages of reading per week, 10 pages of writing per semester, Computer/datamining project
Grade: 25% special projects, 50% quizzes, 25% problem solving
Exam format: Four quizzes throughout the semester, each consisting of 4-6 short answer questions.

PlPa 5999 Special Workshop in Plant Pathology
(Sec 001); max crs 4; 1-4 cr
Instructor: STAFF
Special workshops involving current issues and/or techniques (experimental and laboratory) in plant pathology. Directed towards senior undergraduates and graduate students.
Class time: Depends on the nature of the workshop experience.
Grade: 100% special projects, Depends on the nature of the workshop experience.

Polish
215 Nolte Center; 612-624-3331

Plsh 1101 Beginning Polish
(Sec 001); 5 cr
Instructor: Polakiewicz, Leonard Anthony **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
This course is first 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 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.
Class time: 30% lecture, 70% recitation and interactive activities
Work load: 10 pages of reading per week, 50 pages of writing per semester, 10 exams, 2-3 hours per week listening to audio tapes
Grade: 30% final exam, 30% quizzes, 30% class participation, 10%, oral exam
Exam format: fill in blanks, answer questions, translation

Political Science
1414 Social Sciences Tower; 612-624-4144

Pol 1001 American Democracy in a Changing World
(Sec 001-004); prereq—=1002; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Soper, Paul W
We will examine the basic characteristics of contemporary American politics and government, and how these have changed over time, with a special emphasis on the role played by money and well-organized interests. Then, we will ask whether our system of government is a democracy, or a republic, or some other form of government, and in what ways our politics have become more democratic, and in what ways less democratic. Finally, we will consider what reforms or alternative political arrangements might improve our political system and enhance our democracy. Format: mix of lecture and discussion. Reading: 2-3 books + 2-3 short articles. Midterm Essay & Midterm Exam; Final Essay & Final Exam. Intended for 1st & 2nd year students, non-majors.
Class time: 70% lecture, 30% discussion
Work load: 100-150 pages of reading per week, 14 pages of writing per semester, 2 exams, 2 papers
Grade: 20% mid-semester exam(s), 30% final exam, 50% written reports/papers
Exam format: multiple choice
Course URL: www.polisci.umn.edu/courses/fall2001/1001/001/kiosk.asp

Pol 1001H Honors Course: American Democracy in a Changing World
(Sec 001); prereq—=1001, =1002; honors; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; meets HON req of Honors; 4 cr
Instructor: Abernathy, Scott F
This course is intended to introduce students to the expressed hopes of the American people for their government and to the institutions and processes that have been created and recreated to achieve these hopes. What do we mean by good government? Have we achieved it? How do we build it? By the end of the semester students should have a basic understanding of the structure and function of American government as well as an increased ability to critically reflect on the degree to which our situations and processes live up to the expectations placed on them. The honors section will include additional reading and longer writing assignments.
Class time: 50% lecture, 30% discussion, 20% media
Work load: 75-100 pages of reading per week, 3 exams, 5 papers
Grade: 20% mid-semester exam(s), 20% final exam, 40% written reports/papers, 10% class participation

Pol 1025 Global Politics
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Freeman, John Roy **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
Global politics introduces students to the study of the world's political systems and to the debates over certain global issues. Various theroretical frameworks are examined throughout the semester, but the emphasis is on the so-called liberal perspective. Related middle range accounts of war and of international political economy also are studied. While many global political issues will be mentioned, the focus will be on the legacies of the East-West conflict, particularly nuclear proliferation, and on the North-South conflict, expecially Southern demands for distributional justice. At the end of the semester, students will be able to describe and predict the evolution of a global political system. In addition, they will be able to carve out and defend a stand on one of the global issues mentioned above.
Work load: 100 pages of reading per week, 4 exams
Grade: 60% mid-semester exam(s), 40% final exam
Course URL: www.polisci.umn.edu

Pol 1054 Repression and Democracy Around the World
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 4 cr
Instructor: STAFF
Introduction to political life in all its worldwide variety. Focus on repression, democracy, rights, corruption, gender, and political change. Guest lectures by political science professors who are experts on different parts of the world. Non-majors welcome.

Pol 1065 Government and Medicine
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; 3 cr
Instructor: Jacobs, Lawrence Rubin
Governement and Medicine offers a levely introduction to American politics, focussing on government policy toward health and health care issues. It uses the study of government and politics to understand government policy toward medicine, and to explore the symbiotic relationship between medicine and government. The course is aimed at majors and non-majors seeking an introductory course to American politics and interested in government health policy. Many Americans harbor two central assumptions about government health policy decisions: medical experts alone are equipped to make the "best" policy, and government policy is invariably an unwarrented intrusion. Both assumptions are wrong, and foster a set of unrealistic and unfounded expectations. This course will explore the tension between the expertise of medical professionals and policy makers, and the diverse values and interests of the larger political community. It will trace the origin of government health policy both to democratic pressures (elections, public opinion, interest groups, etc) and to the initiative of doctors, hospitals, health care suppliers of equipment and drugs, and others. Specific sections will focus on the constitutional framework, political participation and public opinion, and the institutional interaction of the three branches of national government.
Class time: 60% lecture, 40% discussion
Work load: 100-120 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers
Grade: 35% mid-semester exam(s), 30% final exam, 35% written reports/papers
Exam format: multiple choice and essay

Pol 1201 Political Ideas and Ideologies
(Sec 001, 002); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Disch, Lisa J
This course is an introductory-level political theory class for political science majors and non-majors that assumes no prior knowledge of political theory. The readings address this fundamental political question: "What is the secret to a well-ordered and lasting political community?" We no longer appeal to nature to justify our political institutions, and we have thoroughly rejected the notion that political rule should be the perogative of an educated elite. Instead, we derive political legitmacy from popular consent. But who are the people? And what counts as consent? We will explore these questions through works by Plato, Jean-Jacques Rousseau, Derrick Bell and others. The course uses participatory learning stratgies to convey the material.
Class time: 80% lecture, 20% discussion
Work load: 50 pages of reading per week, 25 pages of writing per semester, 1 exams, 2 papers, 3 microthemes
Grade: 30% final exam, 65% written reports/papers, 5% problem solving
Exam format: essay

Pol 1908W Topics: Freshman Seminar: Citizenship in Multicultural Soc & Global World
(Sec 002); max crs 30; A-F only; prereq—Fr or max 36 cr; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Lomonaco, Jeffrey D
Politically, both multiculturalism and globalization defy received ideas of political belonging, and as such present special challenges to our identities as citizens, our most comprehensive political identity. This intensive seminar in political theory offers students an opportunity to think through these challenges, to understand what they are and how we might respond to them. Topics to be considered include multicultural citizenship; "race" and ethnicity in the United States; the relationship between multiculturalism and feminism; the moral status of national boundaries and patriotism; a purported "clash of civilizations;" the prospects for cosmpolitan citizenship; immigration and refugees; and global terrorism and responses to it.
Class time: 20% lecture, 80% discussion
Work load: 100 pages of reading per week, 20 pages of writing per semester, 1 exams, 6 papers
Exam format: Short answer and essay

Pol 3070 Faculty-Supervised Individual Field Work
(Sec 001); max crs 12; A-F only; prereq—instr consent, dept consent; 1-12 cr
Instructor: Soper, Paul W
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: daily journal, 5-7page essay, 10page research paper. Acceptable internships include: MN state legislature, federal, state, and local gov't agencies, as well as political parties, campaign organizations, and non-governmental advocacy groups. Students must arrange for credit no later than the end of the second week of the semester.
Class time: 100% Fieldwork/Participant-Observation
Work load: 20 pages of reading per week, 30-50 pages of writing per semester, 0 exams, 0-2 papers
Grade: Weighting of assignments varies with credit level.
Course URL: www.polisci.umn.edu/courses/fall2001/3070/001/kiosk.asp

Pol 3080 Faculty-Supervised Individual Internships
(Sec 001); max crs 15; 3 repeats allowed; A-F only; prereq—instr consent, dept consent; 4-12 cr
Instructor: Soper, Paul W
Students working as interns for members of the U.S. Congress, either in Washington, D.C., or in Minnesota district offices, 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: daily journal, 5-7page essay, 10page research paper. Readings and assignments will focus on both the policymaking process within Congress and the operation of members' offices. Students must arrange for credit no later than the end of the second week of the semester.
Class time: 100% Fieldwork/Participant-observation
Work load: 20 pages of reading per week, 30-50 pages of writing per semester, 0-2 papers
Course URL: www.polisci.umn.edu/courses/fall2001/3080/001/kiosk.asp

Pol 3085 Quantitative Analysis in Political Science
(Sec 001); A-F only; prereq—9 cr social sciences or instr consent; meets CLE req of Mathematical Thinking Core; 4 cr
Instructor: Druckman, James N.
This course serves as an introduction to empirical research techniques, or how one tests a political hypothesis using data. The class will be divided into four parts: research design, measurement and sampling, descriptive statistics, and inferential statistics. We also will discuss how to use statistical software to analyze data. Students will be asked to carry out a research project that includes the collection and analysis of their own data. Additionally, there will be two tests and two presentations. No mathematical of statistical background is necessary. The course is designed for undergraduate majors and non-majors. Required books includ: StataQuest 4 by J. Theodore Anagnoson and Richard E. Deleon, Statistics: Concepts and Controversies 4th Edition by David Moore, and The Craft of Political Research 4th Edition by W. Phillips Shively.
Class time: 60% lecture, 25% discussion, 15% laboratory
Work load: 100 pages of reading per week, 18 pages of writing per semester, 1 exams, 2 papers, presentations
Grade: 15% mid-semester exam(s), 15% final exam, 10% written reports/papers, 40% special projects, 15% in-class presentations, 5% class participation
Exam format: short answer

Pol 3451 Politics and Society in the New Europe
(Sec 001); prereq—3051 or Soc 1001 or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Reutter, Werner
It is almost a trivial statement that the performance and the stability of political systems depend on social, cultural, and economic preconditions. However, more closely examined, this relationship between politics and society probes to be more complicated and to have more ramifications than the overall statement may suggest at first sight. In this course we study politics and society in selected West European countries. First, after an introduction in Comparative Politics, we focus upon the history, and the social and political developments in Germany, France, and the United Kingdom. Then we examine major political and social structures in a comparative perspective thus trying to reach some general conclusions. Required reading: Geoffrey K. Roberts, Patricia Hogwood, European Politics Today, Manchester: Manchester University Press 1997; David P. Conradt, The German Polity, 7th edition, New York: Longman 2001; Philip Norton, The British Polity, 4th edition, New York: Longman 2001; William Safran, The French Polity, 5th edition, New York: Longman 1998.
Class time: 60% lecture, 20% discussion, 20% presentation of students
Work load: 70-100 pages of reading per week, 12-15 pages of writing per semester, 2 exams, 1 paper
Grade: 25% mid-semester exam(s), 25% final exam(s), 50% written report(s)/paper(s)
Exam format: essay

Pol 3477 Political Development
(Sec 001); max crs 5; prereq—1054 or 3051 or instr consent; meets CLE req of Social Science Core; 3-4 cr
Instructor: Nimtz Jr, August H !!CLA Distinguished Teaching Award!!
This course has as its aim an understanding of political change—why it occurs and what are the likely outcomes—with particular emphasis on the political state. Under what circumstances did the state arise and how has it evolved? Is the state necessary for governance? Of major importance is the relationship between economic and political change, especially for democratic governance. Because the most profound changes, if not always the most immediately visible, occur in the course of revoloutions, a major focus will be on understanding how the revolutionary process and its outcomes have implications for governance and democracy. Students are expected to understand and evaluate competing strategies of revolutionary change as well as competing methodologies for analyzing change, for example Marxist and non-Marxist perspectives. Finally as an overall goal, the course seeks to provide an understanding of the interconnectedness between political change in more and less developed ataes/societies.
Class time: 75% lecture, 25% discussion
Work load: 100 pages of reading per week, 12 pages of writing per semester, 2 exams, 2 papers
Grade: 25% mid-semester exam(s), 50% final exam, 25% written reports/papers
Exam format: Essay

Pol 3739 Politics of Race, Class, and Ethnicity
(Sec 001); max crs 5; prereq—6 cr social science; meets CLE req of Cultural Diversity Theme; meets CLE req of International Perspect Theme; 3-4 cr
Instructor: Nimtz Jr, August H !!CLA Distinguished Teaching Award!!
What similarities are there, if any, between the conflicts in the former Yugoslavia, South Africa, Northern Ireland, Rwanda, and Palestine/Israel? Why does racial and ethnic conflict persist in so many regions of the world? To what extent does racial conflict in th U.S. reflect the increasing disparities in wealth? How is racial/ethnic oppression similar and different from sexual oppression? These are some of the questions that this course will address and attempt to answer. This will be done primarily through a comparative analysis of racial/ethnic/class conflict in the U.S., South Africa, and Cuba with particular attention on the experiences of Blacks in the three countries.
Class time: 75% lecture, 25% discussion
Work load: 100 pages of reading per week
Grade: 25% mid-semester exam(s), 50% final exam, 25% written reports/papers
Exam format: Essay.

Pol 3835 International Relations
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; 3 cr
Instructor: Duvall, Raymond D !!CLA Distinguished Teaching Award; Morse Alumni Award!!
This course is meant to provide the skills for analyzing contemporary issues in world politics through examination of influential theoretical approaches to understanding these issues. Emphasis will be placed on developing usable knowledge of various theoretical approaches for analyzing cooperation and conflict at the international and global levels in the modern era. Specific topics covered by the class will include: the origins and importance of the modern territorial (or,nation-)state system; the causes, forms and consequences of major wars; and the structuring of relations of power and domination around such contemporary issues as globalization, environmental change, sub-state and transnational violence, and the proliferation of weapons of mass destruction. The course is primarily lecture format, although students are encouraged to particpate in classroom discussions. It is intended for students who wish to have a better grasp of key theories, which can be used to improve understanding of international relations. Some background in the subject matter, such as is acquired through POL 1025, is recommended.
Class time: 75% lecture, 25% discussion
Work load: 100-150 pages of reading per week, 20 pages of writing per semester, 1 exams, 3 papers, 5 short quizzes
Grade: 30% final exam, 60% written reports/papers, 10% quizzes
Exam format: Essay

Pol 4900W Senior Paper
(Sec 001); A-F only; prereq—Pol sr, instr consent; meets CLE req of Writing Intensive; 1 cr
Instructor: STAFF
Can be attached to any 3XXX or 4XXX course (with the instructor's agreement). A 10-15 page paper is submitted for evaluation/advice by instuctor, then revised for final submission.
Work load: 10-15 pages of writing per semester, 1 papers
Grade: 100% written reports/papers
Exam format: None

Portuguese
34 Folwell Hall 612-625-5858

Port 1101 Beginning Portuguese
(Sec 001, 002); 5 cr
Instructor: STAFF
Speaking and understanding Portuguese; pronunciation; introduction to reading and writing; basic grammar; cultural aspects of language and civilizations of Portuguese-speaking world.

Port 1103 Intermediate Portuguese
(Sec 001); prereq—1102 or instr consent; 5 cr
Instructor: STAFF
Speaking and comprehension. Development of reading and writing skills based on Portuguese-language skills.

Port 3001 Portuguese for Spanish Speakers
(Sec 001, 002); prereq—[Span 3015, GPT] or instr consent [for prereqeakers of other Romance languages]; 4 cr
Instructor: STAFF
Study of Portuguese based on student knowledge of Spanish (speakers of other Romance languages are admissable with instructor permission). Contrastive approach to the phonic and morpho-syntactic structures of Portuguese.

Port 3003 Portuguese Conversation and Composition
(Sec 001); prereq—[1104, GPT] or 3001; 4 cr
Instructor: STAFF
Student may contact the instructor or department for information.
Class time: 50% lecture, 20% discussion, 20% Presentaion
Work load: 10 pages of reading per week, 10 pages of writing per semester, Presentation (oral)
Grade: 50% written reports/papers, 20% special projects, 20% in-class presentations, 10% class participation
Exam format: Essay

Port 3502W Foundations of Brazilian Culture
(Sec 001); Same as: LAS 3502W; Credit will not be granted if credit has been received for: PORT 3402, PORT 3502V; prereq—3003 or equiv; meets CLE req of Writing Intensive; 3 cr
Instructor: Oliver, Elide V
As the title implies, this is a course that deals with the first impressions the European coloniser had when he discovered Brazil, his idealised vision and the problems generated by the implantation of an European civilization in the tropics, the colonial system, the generation of a legitimate Brazilian Society out of a luso-tropical experience. This is a course that shows how Brazil is different from the stereotypical vision most Americans have about this great fiction called "Latin" America. We will deal with some basic texts, texts that perceive Brazil as a unique culture and emphasize its originality. We'll read Sergio Buarque de Hollano, Gilberto Freyre, Antonio Candido, who are considered the "inventors" of Brazil. We'll also read from sources of Brazilian literature in prose and poetry. Music is also part of the program since this is an important field of Brazil's manifestation as a nation. Students are required to give an oral presentation and to write one paper (10 pages) for evaluation. This course can be taught in English but the students need some knowledge of Portuguese to read texts.
Class time: 50% lecture, 25% discussion, 25% oral presentations by students
Work load: 20-30 pages of reading per week, 10 pages of writing per semester, 1 papers
Grade: 70% written reports/papers, 10% in-class presentations, 10% class participation, 10% lab work
Exam format: Essay

Port 5540 Literatures and Cultures of Lusophone Africa
(Sec 001); max crs 9; 3 repeats allowed; prereq—instr consent; 3 cr
Instructor: Arenas, Fernando E
A graduate-level introduction (ALSO OPEN TO ADVANCED UNDERGRADUATES) to the literatures and cultures of Portuguese-speaking Africa (Angola, Cape Verde, Guinea Bissau, Mozambique, and Spo TomT & Prfncipe). Through an interdisciplinary focus that includes history, literature, intellectual thought/critical theory, film, and popular music, students will become acquainted with the key cultural problematics related to Lusophone Africa as a whole and the various individual countries in question. Key topics featured, among others: colonialism, post- or neo-colonialism, Pan-Africanism, Negritude, liberation wars, national identity, periphery, democratization, globalization, gender, and sexuality. When pertinent, cultural links will be established with other regional or national realities such as Africa, Brazil, Portugal, Spanish-speaking America, and the United States. Lectures will be in Portuguese, but discussions may take place in Portuguese, English, or Spanish.
Class time: 50% lecture, 20% cctv, 30% discussion
Work load: 100 pages of reading per week, 20 pages of writing per semester, 4 papers
Grade: 75% written reports/papers, 25% class participation

Port 5970 Directed Readings
(Sec 001); max crs 9; 3 repeats allowed; prereq—MA or PhD candidate, instr consent, dept consent, college consent; 3 cr
Instructor: STAFF
Lusophone Studies (Portuguese-speaking Africa, Brazil and Portugal) Thematic areas not covered in other courses. Students submit reading plans for particular topics, figures, periods or issues.

Psychology
N-218 Elliott Hall 612-625-4012

Psy 3005W Introduction to Research Methods and Statistics
(Sec 001, 014, 015); A-F only; prereq—1001; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
PSY 3005 is an introduction to the basic concepts and procedures used to conduct and evalute research, especially research in the social sciences. Emphasis is placed on understanding the benefits and limitations of traditional research methods, using statistics to describe and interpret research outcomes, and evaluating scientific claims. During class time students listen to lectures, participate in small group activities, and plan, conduct, and participate in experiments. Target audience of course: undergraduates, both Psychology majors and non-Psychology majors; required for Psychology majors. Prerequisite: Psy 1001 and sophomore standing
Class time: 40% lecture, 30% discussion, 30% laboratory
Work load: 50 pages of reading per week, 30 pages of writing per semester, 3 exams, 11 papers, Ten quizzes
Grade: 16% mid-semester exam(s), 16% final exam, 29% written reports/papers, 19% special projects, 10% quizzes, 10% problem solving
Exam format: multiple choice
Course URL: www.psych.umn.edu/psycourses/psy3005

Psy 3031 Introduction to Sensation and Perception
(Sec 001); prereq—1001; 3 cr
Instructor: Burkhardt, Dwight A
This course is concerned with understanding how humans and animals perceive and respond to the external world. It thus deals with "universals" spanning generations, cultures, civilizations and the biological kingdom. Vision and hearing are emphasized. The approach includes psychological experiments on human perception as well as the study of nerve cells and the brain in animals and humans. The general question -of how we perceive the sensory world- is a central question in psychology and contemporary neuroscience. Topics: Taste, Neurons and Brain. Olfaction. Touch. Pain. Hearing: Speech and Brain. Music Perception. Eye and images. Visual adaptation. Contrast perception. Perception of Form. Structure and function of nerve cells in the retina and visual brain. Perception of Depth and Size and Movement. Illusions. Color vision in humans and animals. Target students: Psychology majors, Liberal Arts undergraduates in general (juniors and seniors) with interest and introductory background in psychology and/or neuroscience. Representative text: Goldstein, E.B.. (1998). Sensation and Perception. 5th edition. Brooks/Cole.
Class time: 100% lecture
Work load: 40 pages of reading per week, 3 exams, 40 pages or reading per week = approximately 6-7 hours of reading
Grade: 60% mid-semester exam(s), 40% final exam
Exam format: multiple choice
Course URL: www.psych.umn.edu/psycourses/Burkhardt/psy3031/

Psy 3061 Introduction to Biological Psychology
(Sec 001); Credit will not be granted if credit has been received for: PSY 5061, PSY 5061; prereq—=5061; 1001 or Biol 1009; 3 cr
Instructor: STAFF
Basic neurophysiology and neuroanatomy, neural mechanisms of motivation, emotion, sleep-wakefulness cycle, and learning and memory in animals and humans. Neural basis of abnormal behavior and drug abuse.

Psy 3101 Introduction to Personality
(Sec 001); Credit will not be granted if credit has been received for: PSY 5101, PSY 5101; prereq—credit will not be granted if credit received for: 5101; 1001; 3 cr
Instructor: Oishi, Shigehiro
This course explores major theories and research in personality psychology. Goals of this course are that students will learn historical changes in research topics, become familiar with various research methods used in personality research and learn how to conduct personality research.
Class time: 80% lecture, 20% discussion
Work load: 60 pages of reading per week, 10 pages of writing per semester, 2 exams, 2 papers
Grade: 30% mid-semester exam(s), 40% final exam, 30% written reports/papers
Exam format: Multiple choice

Psy 3604 Introduction to Abnormal Psychology
(Sec 001); Credit will not be granted if credit has been received for: PSY 5604, PSY 5604H; prereq—credit will not be granted if credit received for: 5604H; 1001; 3 cr
Instructor: Grove, William Merrill
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.
Class time: 100% lecture
Work load: 50 pages of reading per week, 3 exams
Grade: 66% mid-semester exam(s), 33% final exam
Exam format: multiple choice

Psy 3666 Human Sexuality
(Sec 001); prereq—1001; 3 cr
Instructor: STAFF
Overview of theories, research, and contemporary issues in human sexual behavior from an interdisciplinary perspective. Topics include sexual anatomy and physiology, hormones and sexual differentiation, cross-cultural perspectives on sexual development, social and health issues, and sexual dysfunction and therapy.

Psy 3902W Major Project in Psychology
(Sec 001-006); A-F only; prereq—3005W, [jr psychology major or sr psychology major]; 4 cr
Instructor: STAFF
Major project provides an opportunity for senior psychology majors to show that they: 1. Have enough knowledge of psychology to form an interesting hypothesis. 2. Have the ability to design a valid study to test this hypothesis. 3. Have the writing and speaking skills to make a clear presentation of their proposed studies. Students will propose studies that would, if performed, add to the knowledge about an area of psychology. They will review existing literature, form and defend a hypothesis, design a study to test the hypothesis, discuss possible results from such a study, and discuss the significance of those results. This proposal will be presented in a 10-minute oral presentation and in a 20-page paper. Major project resembles an independent study more than it resembles a traditional class. The focus is not on absorbing material from lectures and assigned readings in order to answer test questions. Most of the learning takes place outside the classroom. Students need to work independently to succeed in this class. Students should think about proposal topics before the semester begins and should be prepared to spend a significant amount of time developing the proposals during the beginning of the semester.

Class time: varies
Work load: 40 pages of reading per week, 40+ pages of writing per semester, 1 papers
Grade: 40% written reports/papers, 20% in-class presentations, 10% class participation, 30% , Rough draft of final paper, miscelleneous assignments
Exam format: None

Psy 3993 Directed Study

(Sec 001); max crs 24; 8 repeats allowed; prereq—instr consent, dept consent, college consent; 1-6 cr
Instructor: STAFF
Directed studies allow undergraduates to gain knowledge about a topic in psychology in a manner not available in traditional course offerings. Students work with a faculty/adjunct faculty member. Activities may include conducting literary research, writing a paper or developing an individual project. Directed Studies require a special contract with signed approval of a faculty member, student and psychology advisor. The contract and registration instructions are available in 105 Elliot Hall. Undergraduate students may register for Directed Studies for 1- 6 credits per semester.
Class time: 100% Determined by faculty advisor
Work load: 3 Hours each week per registered credit.
Grade: 100% , Determined by faculty advisor
Exam format: Typically, there are no exams

Psy 3994 Directed Research

(Sec 001); max crs 24; 8 repeats allowed; prereq—instr consent, dept consent, college consent; 1-6 cr
Instructor: STAFF
Directed research allows undergraduates to gain research experience by working as a research assistant for a faculty/adjunct faculty member. Activities may include data analysis , running labs, learning about instrumentation, etc. Students must also write a minimum of a 5 page APA format paper. Data entry and reading relevant articles do not qualify as directed research. However, these activities may comprise part of the research experience. Directed research requires a contract with signed approval of a faculty member, student, and psychology advisor. The contract and registration instructions are available in 105 Elliot Hall. Undergraduates may register for Directed Research for 1- 6 credits per term.
Class time: 100% Determined by faculty advisor
Work load: 3 hours work each week per registered credit
Grade: 100% , Determined by faculty advisor
Exam format: Typically, there are no exams

Psy 3996 Undergraduate Field Study/Internship in Psychology

(Sec 001); max crs 12; 4 repeats allowed; prereq—1001, instr consent, dept consent, college consent; 1-6 cr
Instructor: STAFF
The Undergraduate Field Study/Internship in Psychology provides students with a practical, "real world", more job-related learning experience. Locations and particulars of these internships/field study experiences vary widely, but examples include working with mentally ill adults in a hospital or group home, applying intensive in-home behavior modification programs with autistic children, developing and evaluating remedial academic and vocational training programs, conducting task analysis and human factors research, data collection and analysis for clinical trials for a pharmaceutical company, etc. Students typically keep journals which are subsequently submitted to supervisory professors. Also, supervisors at the internship/field work site often submit evaluations of the student's learning and accomplishments. The student may also describe the project and its outcome in a formal paper submitted to the faculty advisor for the evaluation. Registration requires a contract signed by a faculty/adjunct faculty advisor, student and psychology advisor. Contract forms and instructions are available in 105 Elliot Hall.
Class time: 100% Determined by faculty advisor
Work load: 3 hours of work each week per credit
Grade: 100% , Determined by faculty advisor
Exam format: Typically, there are no exams

Psy 4501 Psychology of Women

(Sec 001); prereq—1001 or instr consent; 3 cr
Instructor: STAFF
This course covers current theories and research regarding the psychology of women and psychological sex differences. This includes topics that relate uniquely to women (e.g., pregnancy) as well as differences and similarities between men and women. It is primarily geared toward upper-level psychology majors. More specific topics include sex differences in infancy; sex differences in personality and abilities in adulthood; gender stereotypes; menstruation; sexuality; pregnancy, childbirth and motherhood; women, achievement and work; women and psychotherapy; specific psychological disorders common in women (e.g., eating disorders); violence against women; heterosexual and lesbian relationships; and older women. The emphasis of the course is on critically evaluating the research literature on gender differences and similarities. The text, "Psychology of Women" by M. Matlin, is augmented by selected readings. Class time is divided between lectures, small group discussions, and large group discussions. There will also be occasional guest speakers and videotapes. Evaluation is based on two mid-term exams and one final exam, as well as several smaller assignments (e.g., short reaction papers on assigned readings and small data collection assignments).
Class time: 60% lecture, 40% discussion
Work load: 50 pages of reading per week, 12-18 pages of writing per semester, 3 exams, 6 papers
Grade: 40% mid-semester exam(s), 30% final exam, 15% written reports/papers, 15%
Exam format: Multiple choice, short answer and essay

Psy 4801 Introduction to Statistics

(Sec 001); prereq—3005W or instr consent; 3 cr
Instructor: Cudeck, Robert
Survey of statistical methods used in the analysis of behavioral data. Topics include descriptive statistics, graphs and displays, probability theory, interval estimation, hypothesis tests, regression and correlation. Computer exercises are emphasized. Prerequisite: High school algebra, Limited to honors students and students with instructor permission.
Class time: 75% lecture, 10% discussion, 15% laboratory
Work load: 25 pages of reading per week, 3 exams, Computer exercises.
Grade: 45% mid-semester exam(s), 35% final exam, 20% , Computer exercises.
Exam format: Multiple choice

Psy 4902V Honors Project

(Sec 001); max crs 5; A-F only; prereq—Honors, instr consent, dept consent; meets CLE req of Writing Intensive; meets HON req of Honors; 1-6 cr
Instructor: STAFF
The Honors Project is a critical literature review or empirical study undertaken in consultation with a faculty/adjunct faculty advisor. Projects may be developed independently or through previous work on faculty research projects, but in either case must be sponsored by a faculty member. Students may enroll for a total of 6 credits across one or more terms. Total credit depends upon the nature and scope of the thesis. Psychology majors enrolled in the Honors Program are eligible. Typically taken during the senior year. For details regarding selection of an advisor and registration, see an advisor in 105 Elliott. Registration requires completion of a contract form and faculty advisor and Psychology departmental approval.
Class time: 100% Determined by faculty advisor
Work load: 3 hours of work each week per credit
Grade: 100% , Determined by faculty advisor

Psy 4993 Directed Study: Special Areas of Psychology and Related Sciences

(Sec 001-005, 008-011, 013, 014, 016, 017, 019-028); max crs 16; 6 repeats allowed; prereq—instr consent, dept consent; 1-6 cr
Instructor: STAFF
Specialized research laboratory courses. Registration requires instructor and departmental approval. Information and registration instructions are available in 105 Elliot Hall.
Class time: 100% Varies by instructor.
Work load: Varies by instructor.
Grade: 100% , Varies by instructor.
Exam format: Varies by instructor.

Psy 4993 Directed Study: Special Areas of Psychology and Related Sciences

(Sec 006, 007, 012, 030); max crs 16; 6 repeats allowed; prereq—instr consent, dept consent; 1 cr
Instructor: STAFF
Specialized research laboratory courses. Registration requires instructor and departmental approval. Information and registration instructions are available in 105 Elliot Hall.
Class time: 100% Varies by instructor.
Work load: Varies by instructor.
Grade: 100% , Varies by instructor.
Exam format: Varies by instructor.

Psy 4993 Directed Study: Special Areas of Psychology and Related Sciences
(Sec 015); max crs 16; 6 repeats allowed; prereq—instr consent, dept consent; 1-4 cr
Instructor: STAFF
Specialized research laboratory courses. Registration requires instructor and departmental approval. Information and registration instructions are available in 105 Elliot Hall.
Class time: 100% Varies by instructor.
Work load: Varies by instructor.
Grade: 100%, Varies by instructor.
Exam format: Varies by instructor.

Psy 4993 Directed Study: Special Areas of Psychology and Related Sciences
(Sec 029); max crs 16; 6 repeats allowed; prereq—instr consent, dept consent; 2-4 cr
Instructor: STAFF
Specialized research laboratory courses. Registration requires instructor and departmental approval. Information and registration instructions are available in 105 Elliot Hall.
Class time: 100% Varies by instructor.
Work load: Varies by instructor.
Grade: 100%, Varies by instructor.
Exam format: Varies by instructor.

Psy 4996H Honors Internship/Externship
(Sec 001); max crs 6; A-F only; prereq—Honors, instr consent, dept consent, college consent; meets HON req of Honors; 1-6 cr
Instructor: STAFF
The Honors Internship/Externship provides Psychology Honors Students with an opportunity to gain practical experience in a "real life" setting relevant to an academic interest in psychology. The objective is for the student to learn practical skills and discover work in a particular career area. Opportunities may be coordinated through the Career and Community Learning Center. A written report describing the experience and its consequences is required. Written evaluation from the internship supervisor will be considered as part of the evaluation. Registration requires a contract between a faculty member and the student, and approval from the department. Registration instructions are available in 105 Elliott Hall.
Class time: 100% varies by advisor
Work load: 3 hours of academic work each week per credit
Grade: 100%, varies by advisor
Exam format: Typically, there are no exams

Psy 5012W Learning and Cognition in Animals
(Sec 001); prereq—3011 or 4011 or honors or grad student or instr consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Overmier, J Bruce
Student may contact the instructor or department for information.
Class time: 85% lecture, 9% discussion, 6% film
Work load: 35 pages of reading per week, 25 pages of writing per semester, 3 exams, in 3 "sections"
Grade: 75% mid-semester exam(s), 25% written reports/papers
Exam format: both essay and multiple choice

Psy 5015 Cognition, Computation, and Brain
(Sec 001); prereq—3051 [except for honors/grad student]; 3 cr
Instructor: Marsolek, Chad James
This course covers human cognitive abilities, such as perception, memory, and attention, from different perspectives. The first part of the course examines such abilities from the perspective of cognitive psychology. An emphasis is placed on the behavioral/functional approach to research and theory, and limitations of this approach are discussed. The second part of the course examines these abilities from the perspective of cognitive neuroscience. An emphasis is placed on the neural processing subsystems that underlie these abilities 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.
Class time: 80% lecture, 20% discussion
Work load: 50 pages of reading per week, 7 pages of writing per semester, 3 exams, 1 papers
Grade: 40% mid-semester exam(s), 30% final exam, 30% written reports/papers
Exam format: Short answer
Course URL: levels.psych.umn.edu/5015

Psy 5037 Psychology of Hearing
(Sec 001); Credit will not be granted if credit has been received for: NSC 5037, NSC 5037, NSC 5037; prereq—3031 or instr consent; 3 cr
Instructor: Viemeister, Neal Frank
Biological and physical aspects of hearing, auditory psychophysics, theories and models of hearing, perception of complex sounds including music and speech, clinical and other applications. This course is moderately quantitative and requires skills at the level of college algebra. Remedial help/review will be available. Text: Moore, "An Introduction to the Psychology of Hearing" 4th Edition, Academic Press, 1997. Target Audience: graduate students and undergraduatess in Psychology, Communication Disorders, Neuroscience, Electrical Engineering
Class time: 100% lecture
Work load: 20 pages of reading per week, 2 exams, 1 papers, 1-2 problem sets
Grade: 35% mid-semester exam(s), 35% final exam, 20% written reports/papers, 10% problem solving
Exam format: Multiple choice and essay

Psy 5062 Cognitive Neuropsychology
(Sec 001); prereq—3031 or 3051; 3 cr
Instructor: He, Sheng
This course will survey the consequences of different types of brain damage on human perception and cognition. The goal is to understand the neural mechanisms of normal perceptual and cognitive functions. Major phenomena that will be covered include: Blindsight (seeign without awareness), Visual Agnosia (failure to recognize object), Prosopagnosia (impairments of facial recognition), Neglect (failure to attend to part of the world), the split brain, Spoken language deficits, reading and writing disorders, memory disorders, central planning deficits. The emphasis is on function and phenomenology, with minimal amount of brain anatomy. This course is aimed at undergraduate and beginning graduate students who are interested inpsychology and neuroscience. Text: A.J. Parkin "Explorations in Cognitive Neuropsychology".
Class time: 90% lecture, 5% cctv, 5% discussion
Work load: 20 pages of reading per week, 2 exams, 1 or 2 homework questions per week
Grade: 30% mid-semester exam(s), 50% final exam, 20% problem solving
Exam format: Multiple choice and short essay

Psy 5137 Introduction to Behavioral Genetics
(Sec 001); prereq—3005W or equiv or instr consent; 3 cr
Instructor: Mc Gue, Matt
This course focuses on the application of genetic methods to human and animal behavior. Genetic methods discussed include both traclitinal methodologies like twin and adoption studies as well as cytogenetic and molecular genetic methods. Behavioral applications covered include: Intelligence and mental retardation, personality, schizophrenia, affective illness, and alcoholism.
Class time: 100% lecture
Work load: 50 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 40% final exam, 30% written reports/papers
Exam format: Essay

Psy 5207 Personality and Social Behavior
(Sec 001); A-F only; prereq—3101 or 3201 or honors or grad student or instr consent; 3 cr
Instructor: Snyder, Mark
This class explores the interface between two important psychological fields: Personality and Social Psychology. Understanding of individual and social behavior progresses in this class by analyzing the mutal influences of "the person" (their characteristics, motives, history, etc.) and the forces of social situations (social norms, peer pressure, social roles, expectation, etc.). Even though this is a lecture class, there will be ample opportunity for class discussions. The work load is moderate, with grading emphasis placed on synthetic thinking. This class is open to undergraduate and graduate students with an interest in this topic. A background in psychology is helpful.
Class time: 80% lecture, 20% discussion
Work load: 40 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 25% quizzes

Public Affairs

225 HHHCtr; 612-624-3800

PA 3961W Leadership, You, and Your Community
(Sec 002); Credit will not be granted if credit has been received for: EDPA 3302, EDPA 3302W, EDPA 3302W; prereq—[1961 or EdPA 1301], [undergrad leadership minor or jr or sr]; meets CLE req of Writing Intensive; 3 cr
Instructors: Nobbe, June Elly; Melin, LeeAnn Jessen
Leadership and leadership capacities. Multicultural/multidimensional perspectives. Students examine their views on leadership. Leadership theory/practice. Group dynamics/behavior. Applying knowledge to practice.

PA 3971 Leadership Minor Field Experience
(Sec 001); A-F only; prereq—[3961 or EdPA 3302], undergrad leadership minor; 2 cr
Instructor: Schneider, Byron J
Core leadership information applied to leadership situations. Settings include community or educational organizations, corporations, University student organizations, and formal internships. Students identify two leadership objectives from among personal, interpersonal and organizational development. Experiential learning, individual presentations, group discussions, critical reflection/writing.

PA 5131 Conflict Management: Readings in Theory and Practice
(Sec 001); prereq—Grad or instr consent; 3 cr
Instructor: Fiutak, Thomas Richard
Current theory. Review of conflict resolution strategies. Aspects of interpersonal, group, organizational, and systemic conflict.

PA 5132 Mediation Training
(Sec 001); prereq—Grad or instr consent; 3 cr
Instructor: Fiutak, Thomas Richard
This class will prepare students to facilitate a mediation process. The teaching process is highly interactive, relying on role playing, and active skill building and assessment. There is no expectation that students have prior experiences in dispute resolution, though some background in conflict management theory is helpful. Past classes have attracted students from varied backgrounds. Undergraduate, graduate, and non-matriculating students are welcomed.
Class time: 25% lecture, 35% discussion, 40% simulations/demonstrations, role play
Work load: 25 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers, Outside group work is encouraged
Grade: 25% written reports/papers, 25% class participation, 50%, Mediate two observed mock mediations
Exam format: The final is to mediate a case with external mediators acting as role players. In order to apply thi

PA 5133 Conflict Management Proseminar
(Sec 001); prereq—Grad or instr consent; 1 cr
Instructor: Fiutak, Thomas Richard
Topics in conflict management research/practice. Theoretical implications, practical applications from the perspectives of participants. National/international issues.

PA 5203W Geographical Perspectives on Planning
(Sec 001); Same as: GEOG 5605W; prereq—=Geog 3605W, =Geog 5605W; Grad student or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of International Perspect Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: Miller, Roger P **!!Morse Alumni Award!!**
This course introduces the history of planning, the contexts within which it arose, and how it has responded to social, economic, and political pressures to influence the shape and direction of contemporary urban development. A second goal of this course is to address issues of how planning encourages or discourages citizen participation in controlling the built urban environment and the kinds of activities that occur within it. Has planning made for greater or lesser amounts of public participation in urban development? Is planning primarily a neutral, technical handmaiden to public policy processes, or does it function in ways that benefit certain groups at the expense of others? We will examine these questions using examples from North America, Great Britain, France, Germany, Austria, the former Soviet Union, Scandinavia, Latin America, and other Third World settings. In addition to lecture and discussion, students participate in a group project in which they interact with planning agencies and neighborhood organizations around current planning controversies or development projects. Some students may be able to do this through an extra-credit community service learning internship. Please contact the instructor for further information.Includes additional weekly seminar-style meeting and bibliography project on topic selected in consultation with instructor.
Class time: 75% lecture, 20% discussion, 5% group projects
Work load: 60 pages of reading per week, 40 pages of writing per semester, 0 exams, 3 papers, 2 study questions
Grade: 70% mid-semester exam(s), 15% quizzes, 5% in-class presentations, 5% class participation

PA 5231 Transit Planning and Management
(Sec 001); prereq—Grad student or instr consent; 3 cr
Instructor: Laverny-Rafter, David O
Principle focus is on planning and management of transit facilities and services. Through a multi-media perspective, bus and rail transit are integrated with automobile, pedestrian, bicycle, land use and environmental planning. Creative solutions are explored through case studies, field projects, and interactive course exercises. Undergraduate students require permission.
Class time: 50% lecture, 50% discussion
Work load: 20 pages of reading per week, 25 pages of writing per semester, 2 exams, 2 papers
Grade: 25% mid-semester exam(s), 25% final exam, 40% written reports/papers, 5% in-class presentations, 5% class participation
Exam format: Essay

PA 5311 Program Evaluation
(Sec 001); prereq—Grad student or instr consent; 3 cr
Instructor: STAFF
Examines principle methods and primary applications of evaluation research as applied to policies and programs in health and human sevices, educationm or environment. Enables students to conduct evaluations and to be more critical consumers of the studies done by others.

PA 5401 Poverty, Inequality, and Public Policy
(Sec 001); prereq—Grad or instr consent; 3 cr
Instructor: Hanratty, Maria J
Nature/extent of poverty/inequality in the United States, causes/consequences, impact of government programs/policies. Extent/causes of poverty/inequality in other developed/developing countries.

PA 5441 Education Policy and the State Legislature
(Sec 001); prereq—Grad or instr consent; 3 cr
Instructor: Nathan, Joseph Henry
Want to learn how you can influence Minnesota's legislature, and help improve the world? Want to understand how the legislature makes decisions about education issues, elementary, secondary and higher ed? Want to meet with legislators, reporters, lobbyists? Want to discuss how the Internet can be used to help influence legislators? If so, this is a good class for you. Classroom debates, discussions and roleplays play a key part. There also is a field trip to state legislature. Students will help write a guide for others on what people do to get things done at the legislature. Target audience: mature undergraduates, community members, graduate students
Class time: 20% lecture, 45% discussion, 20% conversations; 10% role plays, 5% field trip
Work load: 70 pages of reading per week, 25 pages of writing per semester, 1 exams, 2 papers, Three minute speech
Grade: 30% final exam, 50% written reports/papers, 15% in-class presentations, 5% class participation
Exam format: Take-home final exam

PA 5511 Community Economic Development
(Sec 001); prereq—Grad or instr consent; 3 cr
Instructor: STAFF
Contexts/motivations behind community economic development activities. Alternative strategies for organizing/initiating economic development projects.Tools/techniques for economic development analysis/planning (market analysis, feasibility studies, development plans). Implementation at local level.

PA 5521 Development Planning and Policy Analysis
(Sec 001); prereq—[[5031 or equiv], [5501 or equiv], grad student] or instr consent; 4 cr
Instructor: Assaad, Ragui A
Examines techniques/assumptions of development planning and policy analysis at the national & regional & project levels. Focus on modeling techniques & planning applications rather than theory. Students assumed to have a background in theories of economic development and to have had previous preparation in quantitative methods. The point of the course is to introduce you to some widely-used modeling techniques that you may come across in the literature, professional practice or future careers. The

goal is not to make you experts in any particular method. Instead, you should come away with an appreciation of the promise and pitfalls of quantitative modeling, while acquiring a specific set of skills through hands-on application. Models in the course are used to analyze direct and indirect effects of government interventions in the economy, with a stress on intersectoral linkages. Planning & policy analysis techniques such as macroeconomic modeling, input-output analysis, social accounting matrices & multipliers are covered. Techniques used in project appraisal and evaluation such as cost-benefit analysis will be examined. While focus will be on developing countries, many techniques covered will have applications in the U.S. context.
Class time: 67% lecture, 33% laboratory
Work load: 50 pages of reading per week, 1 exams, Three 15 page project reports done in groups
Grade: 15% mid-semester exam(s), 85% special projects
Exam format: short essay, short answer

PA 5701 Science and State
(Sec 001); prereq—Grad or instr consent; 3 cr
Instructor: Keller, Kenneth H
Relationship between science and contemporary society. Nature of science: its values, processes, and ways of knowing. How science has influenced U.S. political institutions and political/judicial processes. Issues in current debate over U.S. science policy.

PA 5722 Environmental and Resource Economics Policy
(Sec 001); prereq—[Intermediate microeconomics, intermediate policy analysis, grad student] or instr consent; 3 cr
Instructors: Archibald, Sandra O; Easter, K William
The course emphasizes the use of natural resources over time, natural resource scarcity or adequacy, environmental quality and mechanisms for pollution control and their implications for public policy. It will also include the study of the use of economic analysis and benefit cost analysis in natural resource and environmental quality decisions made both by the public and private sectors. This course is designed to service two groups: (1) seniors and graduate students in Applied Economics, Public Affairs, Geography, Natural Resources, etc., for whom it is a terminal course, and (2) Applied Economic or Economics students who plan to take ApEc 8601 and/or 8602. The course is organized around three lectures per week. However, discussion and questions are encouraged. Readings will be assigned that are on reserve such as Charles W. Howe's book, "Natural Resource Economics: Issues, Analysis and Policy", David W. Pearce and R. Kerry Turner, "Economics of Natural Resources and the Environment", and Roger Permon, Yue Ma and James McGiluroy, "Natural Resources of Environmental Economics". Lecture notes for the class will be available in the book store. The latter book may be used as a text if it is still available from the publisher.
Class time: 85% lecture, 15% discussion
Work load: 60 pages of reading per week, 15 pages of writing per semester, 2 exams, 2 papers
Grade: 35% mid-semester exam(s), 40% final exam, 20% written reports/papers, 5% problem solving

PA 5941 Leadership for the Common Good
(Sec 001); prereq—instr consent; 4 cr
Instructor: Fennelly, Katherine
Personal, team, organizational, visionary, political, and ethical aspects of leadership. Emphasizes building/experiencing a learning community. The course is designed for graduate students.
Class time: 33% lecture, 66% discussion, 33% small group discussion and exercise and 33% large group discussion
Work load: 50 pages of reading per week, 45 pages of writing per semester, 2 papers, Two annotations ans journal questions and exercise every week
Grade: 60% written reports/papers, 10% in-class presentations, 30% ; Journal questions and exercises
Course URL: www.webct.oit.umn.edu/public/PA5941/index.html

Public Health
A 502 Mayo (Box 197) 612-624-6669

PubH 3001 Personal and Community Health
(Sec 001); prereq—credit will not be granted if credit received for: 3004; meets DELM req of classroom; 2 cr
Instructor: Farley, Dana Mark
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 can be found on the Division of Epidemiology website at: www.epi.umn.edu/epi_pages/syllabi/default.html
Class time: 95% lecture, 5% discussion
Work load: 20 pages of reading per week, 3 pages of writing per semester, 3 exams, 1 papers
Grade: 50% mid-semester exam(s), 40% final exam, 10% written reports/papers
Exam format: Multiple choice, fill-in-the-blank
Course URL: webct3.umn.edu

PubH 3003 Fundamentals of Alcohol and Drug Abuse
(Sec 001); prereq—credit will not be granted if credit received for: 3004, 5003; meets DELM req of classroom; 2 cr
Instructor: Rothenberger, James Henry **!!Outstanding Service Award!!**
Lecture, discussion, and special readings on the scientific, sociocultural and attitudinal aspects of alcohol and other drug problems, with special emphasis on the incidence, prevalence, high risk populations, prevention, and interventions. The full syllabus for the course, including lecture outlines, textbook and exam information can be found on the Division of Epidemilogy website at: www.epi.umn.edu/epi_pages/syllabi/default.html
Class time: 95% lecture, 5% discussion
Work load: 30 pages of reading per week, 3 pages of writing per semester, 3 exams, 1 papers
Grade: 50% mid-semester exam(s), 40% final exam, 10% written reports/papers
Exam format: multiple choice and short answer
Course URL: www.epi.umn.edu/epi_pages/syllabi/default.html

PubH 3004 Basic Concepts in Personal and Community Health
(Sec 001); prereq—credit will not be granted if credit received for: 3001, 3003; meets DELM req of classroom; 4 cr
Instructors: Rothenberger, James Henry **!!Outstanding Service Award!!**; Farley, Dana Mark
Introduction to scientific, sociocultural, and attitudinal aspects of communicable and degenerative diseases, environmental and occupational health hazards, alcohol and drug problems; emphasis on the role of education in health conservation, disease control, and drug abuse. The full syllabus for the course, including lecture outlines, textbook and exam information can be found on the Division of Epidemiology website at: www.epi.umn.edu/epi_pages/Syllabi/default.html
Class time: 95% lecture, 5% discussion
Work load: 50 pages of reading per week, 6 pages of writing per semester, 5 exams, 2 papers
Grade: 50% mid-semester exam(s), 40% final exam, 10% written reports/papers
Exam format: multiple choice and short answer
Course URL: www.epi.umn.edu/epi_pages/syllabi/default.html

PubH 3201 Issues in Environmental and Occupational Health
(Sec 001); prereq—credit will not be granted if credit received for: 5201; meets CLE req of Environment Theme; meets DELM req of classroom; 3 cr
Instructor: Olson, Debra Kay
The intent of this course is to have you become sensitized to envrionmental health issues that are affecting you and your community, and which you and your community may be affecting in turn. We all live out our lives in an environment, and, whether we are aware of it or not, are constantly modifying our environment to protect our lives and the lives of others. The focus is on the interaction of humans and the natural environment and how this interaction affects the health of communities. One hundred thirty five hours of student effort are anticipated for this 3-credit semester based course as necessary for an average student to achieve an average grade in the course. This includes 45 hours of content offered in an on-line learning environment and 90 hours including text readings in Nadakavukaren 2000 and a course packet, participating in on-line discussion assignments and quizzes and a written analysis of an environmental health issue of concern in your community. Content will be presented in a password protected site on the Internet with no face-to-face attendance on campus required. The on-line course is available for undergraduate students. A prerequisite tutorial "Module O" is required for students choosing this course to acquaint them with web browsing and navigating the course within the WebCt framework.
Class time: 100% On-line content and discussion
Work load: 40 pages of reading per week, 20 pages of writing per semester, 2 exams, 1 papers, On-line discussion and assignment
Grade: 50% written reports/papers, 20% quizzes, 18% class participation, 12% problem solving
Exam format: Multiple choice
Course URL: webct3.umn.edu/public/PUBH3201/

PubH 5905 Human Nutrition and Health
(Sec 001); prereq—Jr or sr or grad or professional school student; meets DELM req of classroom; 2 cr
Instructor: Brown, Judith E
Goals: To help create informed professionals who value nutrition as a science, who can apply critical thinking skills to decision-making about personal food choices, nutrition issues, and health; who appreciate the cultural and social heritage underlying dietary patterns, and who are able to identify social, political, economic and scientific considerations surrounding national and international food and nutrition policy decisions and controversies. Additional goals for the course include instilling within students an enthusiasm for life-long learning about nutrition and for the universal importance of adequate diets to the health and well-being of people. Objectives: an understanding of the unifying concepts of the science of nutrition; a basic understanding of nutrition, physical fitness and health relationships; an appreciation for the scientific underpinnings of nutrition and the scientific methods that comprise the ways in which knowledge about nutrition and health becomes known; a clear sense of the importance of nutrition to public and personal health; an ability to apply critical thinking skills in the evaluation of nutrition information and claims; an understanding of their current nutritional status; an undestanding of how to apply basic nutrition information and behavioral change strategies to improve diets;an awareness of personally held misconceptions about foods, diets,health and physical performance.
Class time: 50% lecture, 25% discussion, 25% laboratory
Work load: 20 pages of reading per week, 10 pages of writing per semester, 2 exams, 1 papers, 5 lab assignments
Grade: 25% mid-semester exam(s), 30% final exam, 10% written reports/ papers, 15% in-class presentations, 20% lab work
Exam format: objective

Radiology
2-300 Fairview University Medical Center; 612-626-6004

Rad 0125 Cardiovascular Roentgenologic Conference
(Sec 001); 0 cr
Instructor: Hunter, David W
The lecture is a review of the history of the development of x-rays and an overview of medical imaging in today's practice.
Class time: 100% lecture
Work load: A large measure of intellectual curiosity
Grade: No information form this lecture will be utilized for any test or grading purposes—although it shou

Recreation, Park, and Leisure Studies
220 Cooke Hall; 612-625-5300

Rec 3541W Recreation Programming
(Sec 001); A-F only; prereq—1501 or instr consent, Rec major; meets CLE req of Writing Intensive; 3 cr
Instructor: Feldman, Harvey M
This 3-credit course is designed to introduce the student to a variety of methodologies, skills, and materials needed for planning, developing, implementing, and evaluating professional recreation programs for diverse populations in a variety of settings. Course Objectives: 1) Understand the ethical principles and professionalism as applied to all professional practices, attitudes, and behaviors in leisure service delivery. 2) Understand the importance of and resources for professional development. 3) Understand and have the ability to use diverse community, institutional, natural, cultural, and human service resources to promote and enhance the leisure experience. 4) Know the role and content of leisure programs and services. 5) Have the ability to develop outcome oriented goals and objectives for individuals and groups. 6) Understand the concept and use of leisure resources to facilitate participant involvement. 7) Know marketing techniques and strategies. 8) Understand and have the ability to implement public relations and promotion strategies. 9) Have the ability to utilize effectively the tools for communication, including technical writing, speech, and audiovisual techniques.
Class time: 50% lecture, 30% discussion, 20% laboratory
Work load: 31 pages of reading per week, 16 pages of writing per semester, 2 exams, 4 papers
Grade: 15% mid-semester exam(s), 15% final exam, 40% written reports/ papers, 20% in-class presentations, 10% class participation
Exam format: true/false, multiple choice, essay
Course URL: webct.umn.edu/

Rec 3796 Senior Internship in Recreation, Park, and Leisure Studies
(Sec 001, 002); max crs 15; S-N only; prereq—Rec sr, instr consent; 1-12 cr
Instructor: Feldman, Harvey M
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 course work 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.
Class time: 100% Fieldwork
Grade: 100% , field work at recreation agency

Rec 3993 Directed Study in Recreation, Park, and Leisure Studies
(Sec 001, 003, 005-007); max crs 24; 24 repeats allowed; prereq—Rec major or instr consent; 1-9 cr
Instructor: STAFF
A self-directed scholarly pursuit of information, related to the practice of recreational therapy, that is not readily available through current course offerings. Directed Study provides the opportunity to extend knowledge of classroom content to its application in field based projects or analyze status of existing practice based on standards and best practice. Required amount of work = 3 hours per-credit for 14 weeks. Approval via signature of cooperating faculty on Directed Study contract.

Rec 5101 Foundations of Recreation
(Sec 001); A-F only; prereq—MEd or grad student or instr consent; 3 cr
Instructor: STAFF
Investigation of the rational, sociological, psychological and philosophical foundations of the recreational use of leisure in contemporary society. Course objectives/outcomes: 1) Demonstrate an understanding of significant issues/theories within the leisure and recreation areas. 2) Articulate both historical and current philosophical issues which have shaped the direction and scope of leisure, recreation and play. 3) Identify specific concerns and issues regarding leisure/recreation services and resources. 4) Examine leisure/recreation policy issues and how those policy issues affect leisure/recreation services, resources, service providers and consumers. 5) Examine general issues and problems related to research and disciplined inquiry. This course is taught by Corliss Outley.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 30 pages of writing per semester, 2 exams, 2 papers
Grade: 20% mid-semester exam(s), 20% final exam, 60% written reports/ papers

Rec 5191 Commercial Recreation and Tourism
(Sec 001); A-F only; prereq—3551 or instr consent; 3 cr
Instructor: Feldman, Harvey M
This course is designed to provide students with a broad understanding of the private-for-profit leisure services sub-system (also called "commercial" recreation). Commercial recreation projects can have significant economic impacts on a community, including the creation of new jobs, and ancillary development projects, as well as, negative impacts if not properly planned. A major portion of the course will be used to introduce the travel and tourism segment of the commercial recreation field.
Class time: 70% lecture, 30% discussion
Work load: 28 pages of reading per week, 15 pages of writing per semester, 1 exams, 3 papers
Grade: 25% mid-semester exam(s), 50% special projects, 5% class participation, 20% lab work
Exam format: True/false, multiple choice, and essay
Course URL: www.umn.edu/WebCt

Rec 5211 Introduction to Therapeutic Recreation
(Sec 001); A-F only; prereq—1501 or concurrent enrollment 5101, rec major or instr consent; 3 cr
Instructor: Tabourne, Carla E S
Overview of the field of recreational therapy (a.k.a. therapeutic recreation) as purposeful intervention and outcome based services. Content includes roles of certified therapeutic recreation specialists within health care systems, private practice, and in community services. Course includes field experience. Target audience: TR majors, Rec 1501 prerequisite, and students interested in TR as allied health or complementary therapy.
Class time: 40% lecture, 30% discussion, 30% Practicums/Speakers
Work load: 100 pages of reading per week, 30 pages of writing per semester, 2 exams, 2 papers, 40 hour practicum at a chosen facility.
Grade: 10% mid-semester exam(s), 10% final exam, 30% written reports/papers, 20% quizzes, 10% class participation, 20% Practicums
Exam format: Multiple choice, essay
Course URL: webct.umn.edu

Rec 5215 Assess and Monitor Patient/Client Functioning in Recreation Therapy
(Sec 001); prereq—TR major or academic health professional or instr consent; majors A-F only; 3 cr
Instructor: Britt McKenzie, Sharon SE
Selecting appropriate techniques/tools, analysis of individual patient/client supports/deficits. Monitoring/recording progress in recreation therapy and in collaborative services: standard notes; team meetings; on-line reporting for quality assurance, referral, augmentation/termination of services.

Rec 5311 Programming Outdoor and Environmental Education
(Sec 001); A-F only; 3 cr
Instructor: Mc Avoy, Leo H
Methods, materials, and settings appropriate for developing and conducting outdoor and environmental education programs. Emphasis will be on the development of practical environmental education skills. Topics include: benefits of outdoor education, environmental education, environmental interpretation, planning and evaluating programs, integrating persons with disabilities into outdoor and environmental education programs, current issues in environmental education. A number of field visits will be made to local environmental sites. An optional 4-day field experience will give students an opportunity to put theory into practice. Field trip is a canoe trip on St. Croix River in early October. Class includes "Project Wild" workshop, or "Project Learning Tree" workshop.
Class time: 40% lecture, 40% discussion, 10% laboratory, 10% Field trips.
Work load: 65 pages of reading per week, 30 pages of writing per semester, 1 exams, 2 papers, 3 discussion papers.
Grade: 20% mid-semester exam(s), 50% written reports/papers, 30% problem solving
Exam format: take home essay

Rec 5981 Research Methodology in Kinesiology and Leisure Studies
(Sec 001); Same as: KIN 5981; A-F only; prereq—credit will not be granted if credit received for: Kin 5981; MEd or grad student or instr consent; 3 cr
Instructor: STAFF
Defines and reviews various types of research in exercise and sport science, physical education, and recreation studies. Covers qualitative research, field studies, and methods of introspection as alternate research strategies instead of relying on traditional scientific paradigm.

Rec 5992 Readings: Recreation
(Sec 001, 003, 005-007); max crs 9; 9 repeats allowed; 1-3 cr
Instructor: STAFF
Independent study opportunity to conduct in-depth review of the literature on a particular topic. The student works with the faculty to outline a plan of work for the semester including the method by which the student will demonstrate his/her ability to analyze, synthesize, and evaluate the information.

Rec 5995 Problems in Recreation, Park, and Leisure Studies
(Sec 001, 003, 005-007); max crs 30; 30 repeats allowed; prereq—MEd or grad student or instr consent; 1-12 cr
Instructor: STAFF
Independent study of issues related to recreation as intervention modalities and outcome based services in allied health, health care and health promotion arenas. The study is intended to involve scholarly projects, systematic evaluations, preliminary investigation leading to research topics or further formal education of TR content and process, service delivery, policy and legislation, public relations and advocacy, or other endeavors. This opportunity is NOT intended for additional clinical fieldwork or programming experience.

Religions in Antiquity

330 Folwell Hall 612-625-5353

RelA 1034 Introduction to Judaism
(Sec 001); Same as: JWST 1034, JWST 3034, RELA 3034; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Yadin, Azzan I
The goal of this course is to present a historic overview of the cultural and intellectual development of the Jewish People from the Rabbinic Period to the present. In order to best present such a broad topic, the course will combine background lectures and readings with the study of select primary texts in translation. The focus of these readings will be the figure of Moses. This approach will allow the class to trace the development of a central motif as it is reinterpreted by each generation in light of its own historical concerns and problems. Among the issues that will be discussed: The formation of Rabbinic Judaism and the break between Judaism and Christianity; Jew-Greek, Philo and Hellenistic Judaism; Medieval philosophy (Maimonides) and mysticism (Kabbalah); the Jewish Enlightenment; Zionism; American Judaism; and Women and Judaism. The course is intended for students majoring in any area of study and does not assume any prior knowledge of Jewish history or Jewish customs.
Class time: 85% lecture, 15% discussion
Work load: 50 pages of reading per week, 10 pages of writing per semester, 2 exams, 0 papers, 5 one to two paragraph response papers responding to class issues; 1 quiz
Grade: 35% mid-semester exam(s), 50% final exam, 5% quizzes, 10% class participation
Exam format: essay

RelA 1082 Jesus in History
(Sec 001); Same as: CLAS 1082; prereq—=1182; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Sellew, Philip H
In this course we study Jesus of Nazareth in his original setting: first-century Jewish Palestine. How did the image of Jesus shift in changing cultural circumstances? How do modern scholars approach the historical figure of Jesus? What special issues and problems emerge as we try to apply scholarly methods of inquiry to an ancient person who is still worshipped daily almost 2000 years after his death? We ask how Jesus fit within his own world—Jewish, Greek, and Roman. How unusual was Jesus in his own day? What were his intentions? What attracted people to him? What led to his arrest, trial, and execution? We consider the various stories told in the gospel writings of the early churches about Jesus the healer, Jesus the teacher, Jesus the prophet, Jesus the man on a (temporary) visit from Heaven. We ask whether or how we might manage to correlate these competing portraits of Jesus. Structure: We have two lectures and one discussion section each week. Conversation is always welcome. We engage in close readings of the Gospel of Mark, thought to be the oldest gospel that still survives intact, as well as parts of other biblical and apocryphal texts from ancient Christianity. Each student writes seven brief reports (1-2 pp.) on assigned topics or problems; these reports form the basis of discussion in our Tuesday or Thursday sections. Brief quizzes each week test reading comprehension.
Class time: 65% lecture, 35% discussion
Work load: 50 pages of reading per week, 15 pages of writing per semester, 1 exams, Read the assigned texts, show up for class, and be prepared to talk in section. Produce seven brief
Grade: 25% final exam, 40% written reports/papers, 20% quizzes, 15% class participation
Exam format: There is a take-home final exam, in which students write essays evaluating the different reconstruct

RelA 1082H Honors Course: Jesus in History
(Sec 001); Same as: CLAS 1082H; prereq—credit cannot be granted if credit has been received for: 1082, 1182, Clas 1082, Clas 1182; honors; meets CLE req of Historical Perspective Core; meets HON req of Honors; 4 cr
Instructor: Sellew, Philip H
In this course we study Jesus of Nazareth in his original setting: first-century Jewish Palestine. How did the image of Jesus shift in changing cultural circumstances? How do modern scholars approach the historical figure of Jesus? What special issues and problems emerge as we try to apply scholarly methods of inquiry to an ancient person who is still worshipped daily almost 2000 years after his death? We ask how Jesus fit within his own world—Jewish, Greek, and Roman. How unusual was Jesus in his own

day? What were his intentions? What attracted people to him? What led to his arrest, trial, and execution? We consider the various stories told in the gospel writings of the early churches about Jesus the healer, Jesus the teacher, Jesus the prophet, Jesus the man on a (temporary) visit from Heaven. We ask whether or how we might manage to correlate these competing portraits of Jesus. Structure: We have two lectures and one discussion section each week. Conversation is always welcome. We engage in close readings of the Gospel of Mark, thought to be the oldest gospel that still survives intact, as well as parts of other biblical and apocryphal texts from ancient Christianity. Students write a brief report (1-2 pp.) on assigned topics or problems every week; these reports form the basis of discussion in our Tuesday or Thursday sections. Brief quizzes each week test reading comprehension.

Class time: 65% lecture, 35% discussion

Work load: 80 pages of reading per week, 30 pages of writing per semester, 1 exams, Read the assigned texts, show up for class, and be prepared to talk in section. Produce weekly brief

Grade: 25% final exam, 40% written reports/papers, 20% quizzes, 15% class participation

Exam format: There is a take-home final exam, in which students write essays evaluating the different reconstruct

RelA 3034 Introduction to Judaism

(Sec 001); Same as: JWST 1034, JWST 3034, RELA 1034; meets CLE req of Historical Perspective Core; 3 cr

Instructor: Yadin, Azzan I

The goal of this course is to present a historic overview of the cultural and intellectual development of the Jewish People from the Rabbinic Period to the present. In order to best present such a broad topic, the course will combine background lectures and readings with the study of select primary texts in translation. The focus of these readings will be the figure of Moses. This approach will allow the class to trace the development of a central motif as it is reinterpreted by each generation in light of its own historical concerns and problems. Among the issues that will be discussed: The formation of Rabbinic Judaism and the break between Judaism and Christianity; Jew-Greek; Philo and Hellenistic Judaism; Medieval philosophy (Maimonides) and mysticism (Kabbalah); the Jewish enlightenment; Zionism; American Judaism; and Women and Judaism. The course is intended for students majoring in any area of study and does not assume any prior knowledge of Jewish history or Jewish customs.

Class time: 85% lecture, 15% discussion

Work load: 50 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 0 papers

Grade: 35% mid-semester exam(s), 50% final exam, 5% quizzes, 10% class participation

Exam format: essay

RelA 3036 Islam: Religion and Culture

(Sec 001); Same as: ARAB 3036, HUM 3036; prereq—credit will not be granted if credit received for: Arab 3036 or Hum 3036; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr

Instructor: Farah, Caesar Elie

The evolution of Islam in historical context; institutions that made for diversity and continuity; traditions, law and observances of the faith; sectarian movements; philosophical and theological trends; modern developments; reformist, revolutionary, and militant, Islamic revivalism movements, fundamentalism and militancy. Course limited to sophomores, juniors or seniors. Freshmen wishing to take this class must contact the instructor directly for permission.

Class time: 65% lecture, 10% discussion, 20% attendance

Work load: 25 pages of reading per week, 8 pages of writing per semester, 2 exams, 1 papers

Grade: 25% mid-semester exam(s), 25% final exam, 15% written reports/papers, 5% in-class presentations, 5% class participation, 15% , attendance

RelA 3201 The Bible: Narrative Texts

(Sec 001); Same as: ANE 3001, ANE 1001; meets CLE req of Literature Core; 3 cr

Instructor: STAFF

This course will examine narrative portions of the Hebrew Bible, many taken from the Pentateuch (Genesis-Deuteronomy). The focus will be on understanding how biblical narrative texts arose, and on how modern scholarship reads such texts. Considerable attention will be paid to the ancient Near Eastern world as an aid to biblical understanding. The course assumes no prior knowledge of the Hebrew Bible (Old Testament).

RelA 5080 New Testament Proseminar

(Sec 001); Same as: CLAS 5080; prereq—RelA 1082 or 3072 or equiv; 3 cr

Instructor: Sellew, Philip H

Paul, Corinth and Rome. This course focuses on the early Christian communities of Corinth and Rome, as known chiefly from the letters of the Apostle Paul. Much of the class will involve close reading and discussion of three New Testament books: Romans and especially First and Second Corinthians, along with some additional texts that speak to the connections between these communities in the first and second centuries. A second main interest of the course will be to set these early Christian groups into the social-historical setting of Corinth and Rome in the mid-first century. Drawing on archaeology, historical reports, inscriptions and other non-literary sources, we will try to locate the Christians of these Greco-Roman cities in their ancient landscapes. We will discuss possible connections with Diaspora Judaism and other salvation religions of the Mediterranean world. We will analyze the membership of these groups from the perspectives of gender, social class, and economic resources. The class will be run as a discussion seminar. The main textbooks will include (in addition to the Bible) such books as Jerome Murphy O'Connor, "St. Paul and Corinth"; Wayne Meeks, "The First Urban Christians"; Gerd Theissen, "The Social Setting of the Early Christians"; Dale Martin, "The Corinthian Body". Students will make presentations and prepare a final research paper.

Class time: 20% lecture, 80% discussion

Work load: 100 pages of reading per week, 15 pages of writing per semester, 1 papers

Grade: 35% written reports/papers, 25% in-class presentations, 40% class participation

RelA 5251 Archaeology of Herodian Israel

(Sec 001); Credit will not be granted if credit has been received for: CLAS 5251, RELS 5251; A-F only; prereq—One course in [archaeology or ancient history] or grad student; 3 cr

Instructor: Berlin, Andrea

In this course, we will study art, architecture, and household goods from archaeological sites in Israel dating from the reign of King Herod the Great (37-4 B.C.). We will first focus on the constructions by Herod himself: his fabulous palaces (eg., Masada, Jericho, Herodium, Caesarea), as well as the magnificant religious structures he built for his various subjects (eg., the Temple in Jerusalem for Jews, Roman-style temples at Caesarea and Samaria for pagans). Herod's buildings exhibit a mix of Roman, Near Eastern, and Hellenistic Greek styles, which is understandable given his position and the period in which he lived: he was a friend of Augustus Caesar, the first emperor of Rome; a Near Eastern monarch in the tradition of the Assyrians and Persians; and an artistic patron of Hellenistic Greek culture. We will next concentrate on remains from both Jewish and pagan settlements throughout Herod's kingdom. These exhibit an astonishing variety, and reflect the diversity of Herod's subjects. Study sites will include Jerusalem, where the Jewish aristocracy lived; Qumran, village of the sect who wrote the Dead Sea Scrolls; Gamla, a prosperous Jewish village in the Golan Heights; and Caesarea, the city and harbor that Herod built for the comfort and prosperity of his pagan subjects. The course readings will consist of contemporary literary sources and excavation reports. The target audience is graduate students and committed undergraduates with relevant preparatory work.

Class time: 50% lecture, 25% discussion, 25% student reports

Work load: 50 pages of reading per week, 30 pages of writing per semester, 3 papers

Grade: 75% written reports/papers, 25% in-class presentations

Exam format: There are no exams.

Religious Studies

330 Folwell Hall 612-625-3553

RelS 3521W History of the Holocaust

(Sec 001); Same as: JWST 3521W; Credit will not be granted if credit has been received for: HIST 3727W; meets CLE req of Writing Intensive; 3 cr

Instructor: Feinstein, Stephen

This course will attempt to document and analyze the Holocaust—in particular, the background, development and systematic extermination of European Jews and Roma/Sinti (gypsies) by the Nazis. Not only were Jews affected by policies of the Third Reich ("Nazi Germany"), but others labeled "undesirable" or "subhuman" were also exterminated in this process. There were also political enemies of the regime. In this course, particular attention will be given to the phenomenon of anti-Semitism, in both its religious and secular forms, to the relationship between mass murder or genocide and the growth of bureaucracy and technology, and to the challenges posed by the Holocaust for religious and humanistic beliefs

and values. There are a wide variety of historiographical approaches that have tried to analyze why the Holocaust happened in Germany, the most enlightened and "modern" country in Europe. As a subject of history, however, the facts and analytical skills derived from many disciplines should be able to provide answers that fit into an overall framework of historical knowledge.
Class time: 90% lecture, 10% discussion
Work load: 250 pages of reading per week, 35 pages of writing per semester, 1 exams, 3 papers
Grade: 25% final exam, 70% written reports/papers, 5% class participation
Course URL: webct3.umn.edu

ReIS 5251 Archaeology of Herodian Israel
(Sec 001); Credit will not be granted if credit has been received for: CLAS 5251, RELA 5251; A-F only; prereq—One course in [archaeology or ancient history] or grad student; 3 cr
Instructor: Berlin, Andrea
In this course, we will study art, architecture, and household goods from archaeological sites in Israel dating from the reign of King Herod the Great (37-4 B.C.). We will first focus on the constructions by Herod himself: his fabulous palaces (eg., Masada, Jericho, Herodium, Caesarea), as well as the magnificant religious structures he built for his various subjects (eg., the Temple in Jerusalem for Jews, Roman-style temples at Caesarea and Samaria for pagans). Herod's buildings exhibit a mix of Roman, Near Eastern, and Hellenistic Greek styles, which is understandable given his position and the period in which he lived: he was a friend of Augustus Caesar, the first emperor of Rome; a Near Eastern monarch in the tradition of the Assyrians and Persians; and an artistic patron of Hellenistic Greek culture. We will next concentrate on remains from both Jewish and pagan settlements throughout Herod's kingdom. These exhibit an astonishing variety, and reflect the diversity of Herod's subjects. Study sites will include Jerusalem, where the Jewish aristocracy lived; Qumran, village of the sect who wrote the Dead Sea Scrolls; Gamla, a prosperous Jewish village in the Golan Heights; and Caesarea, the city and harbor that Herod built for the comfort and prosperity of his pagan subjects. The course readings will consist of contemporary literary sources and excavation reports. The target audience is graduate students and committed undergraduates with relevant preparatory work.
Class time: 50% lecture, 25% discussion, 25% student reports
Work load: 50 pages of reading per week, 30 pages of writing per semester, 3 papers
Grade: 75% written reports/papers, 25% in-class presentations
Exam format: There are no exams.

Rhetoric

64 Classroom Office Building 612-624-3445

Rhet 1001 Introduction to Scientific and Technical Communication
(Sec 001); S-N only; 2 cr
Instructor: STAFF
Introduction to Scientific and Technical Communication introduces the field of STC to current and potential STC students. Discussions, lectures, and guest speakers introduce the everyday work of STC professionals, including technical writing, project managing, and multimedia/Internet designing. The course will also address the many fields in which STC professionals work, such as medical technology, computer software, agriculture, and natural resources. It will also introduce the employment (marketing) portfolio, student and professional organizations, and trade and scholarly journals. Since these topics and applications cover a wide variety of experiences, the class will be light on lecture and heavy on guest speakers including professors, undergraduate and graduate students, and industry professionals who will share their expertise and experiences. The course is graded pass/fail (S-N).
Class time: 10% lecture, 45% discussion, 45%
Work load: 5 pages of reading per week, 5 pages of writing per semester, 1—2 papers
Course URL: www.agricola.umn.edu/rhet1001/

Rhet 1101 Writing to Inform, Convince, and Persuade
(Sec 001-015); A-F only; meets CLE req of Cultural Diversity Theme; 4 cr
Instructor: STAFF
This course introduces the writing process and types of academic writing you may be expected to complete in your college career such as research papers, argumentative papers, and literature reviews. The course is designed to help you develop a clear thesis in a written paper and support that thesis with appropriate sources. Time will be spent discussing rhetorical elements in writing such as audience, purpose, and argumentative structure. In addition, you will practice steps in the writing process such as invention, research, organization, drafting, revision, and editing. This course emphasizes cultural diversity; therefore many readings and class discussions will relate to cultural diversity issues. Your assignments will report, synthesize, and draw conclusions regarding the significance of what you read. Assignments may include 1) summary or abstract 2) rhetorical analysis 3) short thesis paper; 4) prospectus; 5) evaluation or review of literature; 6) research paper. Some courses are taught in a computer classroom and some in a traditional classroom.
Class time: 20% lecture, 40% discussion, 40% laboratory
Work load: 30 pages of reading per week, 6 papers
Grade: 100% written reports/papers

Rhet 1152W Writing on Issues of Science and Technology
(Sec 001, 002); A-F only; prereq—exemption from 1101 or equiv; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course is designed to explore issues of scientific writing. Students explore the ethical, social and political challenges that science and technology create. Students gain: 1) Familiarity with the strategies of rhetorical analysis; 2) A basic fluency in the conventions and philosophy of scientific discourse, and 3) Understanding the role of science in society. For non-science majors, the goal of the process is to gain competency in science as it pertains to political and social situations, which you will face as a citizen. For science majors, the goal is to increase your skill as a participant in these future debates. Specific topic areas include bio-science and environmental controversies; such as cloning, organ transplantation, pollution, and ozone depletion.

Rhet 1223 Oral Presentations in Professional Settings
(Sec 001-008, 010); A-F only; 3 cr
Instructor: STAFF
Rhetoric 1223 is designed to help you improve your oral presentation skills. In this course you will learn techniques for preparing, organizing, and delivering a message to an audience; you will enhance your ability to make a good, persuasive argument; and you will learn to respect the ethical responsibilities that come with speaking in public and professional settings. You will gain these skills and sensibilities through the study of rhetorical principles and extensive practice in speaking.
Class time: 40% lecture, 30% discussion, 30% laboratory
Work load: 25 pages of reading per week, 10 pages of writing per semester
Grade: 15% quizzes, 75% in-class presentations, 10% class participation

Rhet 1311 The Family in American Experience
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Literature Core; 3 cr
Instructor: Scanlan, Thomas M **!!COAFES Distinguished Teaching Award; Morse Alumni Award!!**
We all carry around in our heads and hearts images of what family life is supposed to be. This course is about the expression of family life in literature as the cultural context for our own individual attitudes. We will see both WHAT is said about family lives as well as HOW it is said. That is, we will discuss literary form as well as domestic content, primarily in fiction, drama, and autobiography. The emergence of the nuclear family with its particular tensions is the background for looking at such themes as changing family roles (especially, but not exclusively, for women), at the conflicts between self and mutuality, at the importance of place and story, and at different and evolving family patterns. In this class you are asked to examine your own ideas about family life by writing short papers. I also give quizzes to encourage you to keep up with the reading and exams to see how well you have read.
Class time: 50% lecture, 50% discussion
Work load: 60 pages of reading per week
Grade: 30% mid-semester exam(s), 30% written reports/papers, 30% quizzes, 10% class participation
Exam format: short answer/ essay

Rhet 1381W Fictional History: 20th Century Through the Eyes of Novelists
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Walzer, Arthur Eugene **!!COAFES Distinguished Teaching Award!!**
This course examines selected 20th-century documentary novels—novels claimed to be based on historical fact, or at least set against a background of actual events. We will look at these novels as persuasive documents that attempt to influence the reader's view of a particular conflict or culture. Since this course is intended to help students explore how literature

works—especially how it persuades—we may compare fictional treatments of specific events with historical or journalistic accounts. The course is also intended to help students explore how writers from different cultures represent the same pivotal events of the twentieth century; to this end students will be asked to compare African or Palestinian novels with those written about the same events by British or American writers. Conflicts discussed include imperialism in Africa, the Holocaust, the Vietnam War, and the Israeli-Palestinian conflict. Course is "writing intensive."
Class time: 25% lecture, 75% discussion
Work load: 100 pages of reading per week, 20 pages of writing per semester, 0 exams, 5 papers, 9 Quizzes
Grade: 40% written reports/papers, 30% quizzes, 30% class participation
Exam format: Quizzes will include both short answer questions and essays.
Course URL: www.agricola.umn.edu/rhet1381/

Rhet 3221W Theories of Human Communication

(Sec 001, 002); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
Course provides a detailed survey of several fundamental theories and models of human communication. Major topic areas within this broad field include theories of language, interaction and influence. Students apply theories in analysis of communicative events in interpersonal, group and mass-mediated contexts.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 30 pages of writing per semester, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 20% final exam, 50% written reports/papers, 10% class participation

Rhet 3257 Scientific and Technical Presentations

(Sec 001-003); prereq—1223 or instr consent; 3 cr
Instructor: STAFF
An advanced class in oral presentation, designed so students can continue to enhance and improve their public speaking skills. Learn presentation software and other computer technology, and understand the complexities of presenting scientific or technical information. Students will be asked to focus on presenting scientific or technical information to a general audience. Course focuses on learning theories and techniques for effective communication through verbal presentation, visual communication, and supplemental materials. Analysis and critical thinking skills are also emphasized. Class participation is an essential element of this course.

Rhet 3266 Group Process, Team Building, and Leadership

(Sec 001, 002); prereq—1223 or equiv or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: STAFF
Learning how communication interactions influence outcomes of the group process is the primary focus of this course. Goals for the semester include learning: 1) to become critical observers of communication behavior and interactions in yourself and others; 2) to analyze and evaluate communication behavior based on desired goals and outcomes of the group process; 3) specific theories and techniques which will help facilitate the group process; 4) to apply theories and techniques through in-class practice in group interactions
Class time: 20% lecture, 40% discussion, 40% In class activities
Work load: 40 pages of reading per week, 30 pages of writing per semester, 3 papers, 2 quizzes
Grade: 50% written reports/papers, 10% quizzes, 30% in-class presentations, 10% class participation

Rhet 3291 Independent Study

(Sec 001); max crs 3; prereq—instr consent, dept consent; 1-3 cr
Instructor: STAFF
Supervised reading and research on topics not covered in regularly scheduled course offerings. Students negotiate a topic and assignments with a chosen faculty member.

Rhet 3361 Literature of Social Movements in the United States: 1950 to 2000

(Sec 001); A-F only; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Literature Core; 3 cr
Instructor: STAFF
This course examines the personal and political reasons why people become involved in social movements, and how they express their arguments and ideologies when they move into the public arena. It also 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. Six social movements will be examined within the course: Civil Rights, Women's Movement, Anti-Vietnam War, AIDS Activism, Chicano/Latino 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 the novelist, playwright, documentary filmmaker, and popular filmmaker. We also examine how memory and retelling of personal stories affects the autobiographer or memoir writer.
Class time: 15% lecture, 85% discussion
Work load: Two take-home exams, in-class readings, quizzes
Grade: 15% quizzes, 20% class participation, Exam 1, 30%; Exam 2, 35%

Rhet 3371 Technology, Self, and Society

(Sec 001); prereq—[Jr or sr] STC major or instr consent; 3 cr
Instructor: Scanlan, Thomas M **!!COAFES Distinguished Teaching Award; Morse Alumni Award!!**
This course is designed not as a history of technology, but as an examination of the meanings, implicit and explicit, which technology has for Americans. In short, it is about the culture of technology, and asks students to become self-conscious as to how particular technologies affect their inner lives and what sorts of attitudes and values—political/social/intellectual—are encouraged or discouraged by technologies and technology systems in the US. Issues of power, work, identity and our relation to nature are recurring themes. We may examine the shift to mass production/mass consumption, the agricultural revolutions of mechanization and science, technology in art and industrial design, the "magic" of electricity, the car and the computer as icons of progress, and/or tension between environmentalism and technology. Literature, art, reportage, and the social history of particular technologies provide the materials, both of celebration and of critique. Although created specifically for undergrad majors in Science and Technical Communication, other students may (and do) take it by permission of the instructor. I regularly give "have-you-read-it" quizzes along with required exams and papers
Class time: 50% lecture, 50% discussion
Work load: 60 pages of reading per week
Grade: 20% mid-semester exam(s), 60% written reports/papers, 20% quizzes
Exam format: Essay

Rhet 3382 War

(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: Gross, Alan G
If ethics exist, even in war, then they have a reality that others might deny them; if there is a right and wrong in war, a strong case can be made that there is a right and wrong everywhere. This is war as it has been fought in modern times. But war has changed its character in our lifetimes: the wars in the former Yugoslavia and in Kurdistan defy the old rules: civilians are routinely murdered, prisoners of war routinely shot. These wars have their roots in pervasive ethnic and nationalistic conflict, difficult to resolve, difficult to police. In this course, we will deal with the following topics: the theory of aggression, what it means to fight well, the status of resistance and reprisals, the War Convention, the responsibility for crimes of aggression during war, and the ethnic and nationalistic sources of contemporary wars and warfare. Three books will form the core of the course, Michael WalzerÆs classic "Just and Unjust Wars", Primo LeviÆs moving account of his incarceration in a death camp, "Survival in Auschwitz', and the brilliant journalism of Michael Ignatieff's "Blood and Belonging". These texts will be supplemented by the viewing of such films as "The Battle of San Pietro", "Das Boot", "Hotel Terminus", "The Wannsee Conference", "Shoah", "The Triumph of the Will", and "Ambush at Mogadishu". There will be ample time for class discussion.
Class time: 65% lecture, 35% discussion
Work load: 50-60 pages of reading per week, 12-15 multiple choice exams
Grade: 100% quizzes
Exam format: multiple choice
Course URL: www.umn.edu/home/agross

Rhet 3562W Technical and Professional Writing

(Sec 001-017); A-F only; prereq—[EngC 1011 or 1101 or 1152 or equiv], jr; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
Rhetoric 3562W focuses on writing a variety of documents for technical audiences, e.g., letters, resumes, instructions, memos, proposals, and reports. Students will select a client in their field of study for this class, and many of the documents they create will be directed toward that client. This course stresses the importance of process, audience analysis, technical communication, oral communication, visual design and usability.

Rhet 3577W Rhetoric, Technology, and the Internet
(Sec 001); A-F only; prereq—[1101 or equiv], [3401 or equiv]; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
The Internet from a rhetorical perspective. How the Intenet is changing language, power to persuade, scientific/technical knowledge, and legal issues such as copyright, privacy, and free speech. Emphasizes how scientific/technical information is conveyed on the Internet, and ethical issues specific to the use of computers.
Grade: Classtime—Attendance and class participation 10%; Surprise Quizzes—10%; Assignment 1—15%; Assignm

Rhet 3671 Project Design and Development I
(Sec 001, 002); A-F only; prereq—[3562, STC major] or instr consent; 3 cr
Instructor: STAFF
Study and apply rhetorical principles to visual presentation of information and data in print documents. Create examples of visual communication, and design selected technical publications; study and apply principles of technical writing.

Rhet 4105W Corporate Video for Technical Communicators
(Sec 001); A-F only; prereq—3562 or equiv or instr consent; meets CLE req of Writing Intensive; 4 cr
Instructor: Becker, Sandra J.
You will gain a new appreciation for video design and production and the professionals who work in this medium. This is NOT a production class. Rather, it serves students who need to understand video design so they can be knowledgeable when called upon to buy video services, work on video projects, and/or write scripts for training, internal or external communications, or marketing videos. Goals: 1) Make rhetorical judgments about appropriate uses of video (tape, CD-ROM and DVD, streaming video, teleconferencing, video walls, etc.) 2) Describe the pre-production, production, post-production processes and the roles of those on the video team who are involved in each phase. 3) Apply rhetorical principles as you analyze videos. 4) Analyze and evaluate videos in terms of script, direction, talent, music, sound effects, graphics, digital effects, and editing. 5) Begin to approximate a budget for a production. 6) Write for sight and sound, thus making the leap from writing for print to writing for the screen. 7) Analyze selected ethical and legal issues. 8) Demonstrate understanding of the production process well enough to pass an exam and make judgments (aesthetic and budgetary) when writing a treatment and script.
Class time: 25% lecture, 25% discussion, 25% laboratory
Work load: 25 pages of reading per week, 40 pages of writing per semester, 1 exams, 4 papers, Proposal, treatment, script
Grade: 15% mid-semester exam(s), 25% written reports/papers, 45% special projects, 7% class participation, 7% , Participation
Exam format: Essay

Rhet 4165 Managerial and Organizational Communication, Planning, and Change
(Sec 001); A-F only; prereq—3266 or instr consent; 3 cr
Instructor: STAFF
Organizations play a ubiquitous role in modern life. We are simultaneously members of corporations, schools, churches, community groups, and volunteer groups—with many roles in many different kinds of organizations. This course explores the role of the organization by looking ar various organizational theories and emphasizing the practical matter of relating theory to practice. Against this backdrop, this course looks into the practical matter of communicating effectively in the roles we play in organizations. To accomplish this, the course uses case studies and analysis of both "internal" organizational communication (employee-managerial relations, male-female relations, etc.) and "external" organizational communication (i.e., how organizations communicate with the public). Topics to be covered include communication technology, interpersonal relations, and speaking and writing for organizational audiences. In addition to case studies, assignments include short papers, presentations, and class discussions.
Class time: 65% lecture, 35% discussion
Work load: 30-40 pages of reading per week, 25 pages of writing per semester, 2 presentations
Grade: 60% written reports/papers, 25% in-class presentations, 15% class participation

Rhet 4196 Internship in Scientific and Technical Communication
(Sec 001); max crs 6; S-N only; prereq—STC major, instr consent; 3-6 cr
Instructor: STAFF
Internships are designed to allow students to take classroom skills and knowledge into the workplace and apply these skills in a practical setting; in addition, students learn about working as a technical communicator in an organizational setting. See Rhetoric Internship Guide for more information.

Rhet 4561 Editing and Style for Technical Communicators
(Sec 001); prereq—[3562, [STC major or grad student]] or instr consent; 3 cr
Instructor: STAFF
In this course you will learn a set of strategies for editing and revising the kinds of writing you are likely to encounter as an editor of scientific and technical prose. We will spend much of the semester practicing editing skills, but will also discuss an editor's responsibilities, her/his relationship to the writer and role(s) of an editor within an organization. As well, we will be concerned with organizational style guides, forms of technical editing in different industries, and the impact of technology on editing and style.
Grade: 25% quizzes, 10% class participation, Assignment 1—Short Presentation, 30%; Assignment 2—Long Presentation, 35%

Rhet 5111 Message Design: Theory and Practice I
(Sec 001); A-F only; prereq—Grad student or instr consent; 3 cr
Instructor: Wahlstrom, Billie J
Audience analysis, media selection, message design through various theoretical perspectives, including cognitive/schema, social construction, feminist, intercultural theories. Usability testing, contextual inquiry as means to study effectiveness of messages.

Rhet 5196 Internship in Scientific and Technical Communication
(Sec 001); max crs 6; S-N only; prereq—STC grad or instr consent; 3-6 cr
Instructor: STAFF
Internship sites may include the University, industry, or government agencies. An internship proposal, progress report, internship journal (optional) and final report, with a letter from the internship supervisor are required. See Rhetoric Internship Guide for more information.

Rhet 5258 Information-Gathering Techniques in Scientific and Technical Communication
(Sec 001); A-F only; 3 cr
Instructor: Mc Dowell, Earl Ernest
Questionnaire development, informational interviewing, and focus group interviewing. Emphasis on guides, schedules, questioning techniques, and communication theories. Descriptive statistics used to analyze data for various projects. This course is designed for technical communication students and other students who want to learn how to conduct interviews, as well as participate as interviewees, in employment, exit appraisal, persuasive and problem-solving interviews. I am the author of the textbook used in the course.
Class time: 20% lecture, 80% discussion
Work load: 30 pages of reading per week, 50 pages of writing per semester
Grade: 47% written reports/papers, 20% in-class presentations, 33% class participation
Exam format: Essay

Rhet 5291 Independent Study
(Sec 001); max crs 3; prereq—instr consent; 1-3 cr
Instructor: STAFF
Supervised reading and research on topics not covered in regularly scheduled course offerings. Students negotiate a topic and assignments with a chosen faculty member.

Rhet 5562 Theory and Practice in International Business Communication
(Sec 001); A-F only; prereq—3562 or equiv; 3 cr
Instructor: Mikelonis, Victoria M
The purpose of this course is to analyze current theories and practices in international communication. Since more and more companies are multinationals with affiliates or suppliers from all over the world, you will increasingly be entering the global workplace. This course is designed to teach you some of the major differences in communication theory and practice in different cultures. For those who already have international or intercultural experience, they can draw on that experience for some class assignments. For those who do not have this kind of experience, they will gain practical experience by interviewing people from other cultures and representatives of global companies as part of their coursework. This course will compare the differences between international and U.S. business communication. Students will analyze and discuss different cultural contexts.
Class time: 40% lecture, 20% discussion, 40% Student presentations on Intervierws—30%; Guest Speakers—10%
Work load: 30 pages of reading per week, 3 in-class quizzes; 3 papers/presentations—some group assignments
Grade: 30% quizzes, 60% in-class presentations, 10% class participation

Rhet 5664 Science Writing for Popular Audiences
(Sec 001); A-F only; 3 cr
Instructor: Logie, John
This course will examine how scientific information is transformed as it moves from disciplinary journal articles (and other scientific discourse) to articles for popular audiences, such as those in the New York Times' "Science Times" section, or in magazines like Discover. Students will read science and technology articles directed at lay readers and will trace out the journal articles and other sources of this reporting. Students will use rhetorical and other theories to examine and critique popularized articles. During the course of this criticism, students will develop a heuristic for writing such articles. Along with their critiques and analyses, students will also use their knowledge to research a scientific or technical topic and write an article for a specific popular audience. Some practical advice will be given on how to launch a career as a science writer. When possible, the class will also attend a lecture by a science writer.
Class time: 15% lecture, 70% discussion, 15% Writing workshops
Work load: +/- 100 pages of reading per week, 40 pages of writing per semester, 0 exams, 4 papers
Grade: 90% written reports/papers, 10% class participation

Russian

215 Nolte Center; 612-624-3331

Russ 1101 Beginning Russian I
(Sec 001-003); 5 cr
Instructor: STAFF
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 section. Active control of Russian structure in the principal criterion of evaluation.
Class time: 30% lecture, 70% instructor guided oral exercises
Work load: 20 pages of reading per week, 5 exams
Grade: 25% final exam, 70% quizzes, 5% , oral exam

Russ 1101 Beginning Russian I
(Sec 050); 5 cr
Instructor: Polakiewicz, Leonard Anthony **!!CLA Distinguished Teaching Award; Morse Alumni Award!!**
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.
Class time: 30% lecture, 70% instructor guided oral exercises
Work load: 10 pages of reading per week, 50 pages of writing per semester, 10 exams, note: exams include 8 quizzes, final written exam, final oral exam
Grade: 30% final exam, 30% quizzes, 30% class participation, 10%, final oral exam
Exam format: fill in the blanks, answer questions, translation

Russ 3001 Intermediate Russian I
(Sec 001, 002, 050); prereq—1102 or equiv; 5 cr
Instructor: STAFF
This course continues the development of the four basic language skills—speaking, understanding, reading, and writing. Students prepare regularly assigned written exercises, listen to tapes and videos, work with computer instructional programs and participate in class activities. Active control of the language for communication in all modalities is the goal of instruction and the main criterion of evaluation.
Class time: 20% lecture, 40% discussion, 10% laboratory, 30% Instuctor guided oral activities
Work load: 4 exams, Regular (weekly) written assignments / exercises for each class meeting
Grade: 30% final exam, 30% quizzes, 20% class participation, 20% lab work
Exam format: fill in, translation to Russian, open-ended response.

Russ 3101 Advanced Russian I
(Sec 001); prereq—3002 or equiv; 3 cr
Instructor: STAFF
General objectives: reviewing and in-depth studying of grammar; developing and improving oral and written skills; developing cultural sensitivity through the use of realia and contexts.
Class time: 20% lecture, 50% discussion, 30% grammar exercises
Work load: 20 pages of reading per week, 10 pages of writing per semester, 2 exams, Compositions: 3 per semester; Oral report: 10-15 minutes at the end of semester [Topics will be chos
Grade: 20% mid-semester exam(s), 30% final exam, 10% written reports/papers, 20% quizzes, 10% in-class presentations, 10% class participation
Exam format: fill-in-the-blank, short essay, tranlation from English to Russian, answering questions

Russ 3211 Modern Russian Literature in Translation
(Sec 001); Same as: RUSS 5211; prereq—=5211; 3 cr
Instructor: STAFF
This course introduces students to major authors and the cultural content of Russian literature from 1917 to the present. Literary works are studied for their artistic merit and for their social, political and ideological significance. Among the subjects covered are the Bolshevik revolution, feminism, Stalinism and socialist realism, dissidence and changes during the Soviet period. The format of the course is lecture and discussion This is a reading-intensive course.
Class time: 75% lecture, 25% discussion
Work load: 100+ pages of reading per week, 2 exams
Grade: 50% mid-semester exam(s), 50% final exam
Exam format: Essay

Russ 3311 Russian Major Project
(Sec 001); A-F only; prereq—Advanced Russian major; 3 cr
Instructor: STAFF
This 3-credit course is designed for and required of all students majoring in Russian, except for Honors students (see Russ 3312). It consists of writing a research paper of no less than 20 typed double-spaced pages, under the guidance of two faculty members in the Russian program. 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 use secondary sources (critical and scholarly literature) appropriately, and the ability to analyze and 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 3311H Honors Major Project in Russian
(Sec 001); A-F only; prereq—credit will not be granted if credit has been received for Russ 3311, Russ 3312; Russ maj, instr consent; 3-4 cr
Instructor: STAFF
This course is designed for and required of all Honors students majoring in Russian. It consists of writing a research paper of no less than 35 typed double-spaced pages, under the guidance of two faculty members in the Russian program. Candidates for summa cum laude need three faculty readers, one of who should be outside the Russian department. Topics are chosen by students in consultation with their faculty advisors. Students have scheduled individual meetings with the advisors. The Director of Undergraduate Studies coordinates all projects, and students should consult her/him before signing up for the course. Projects should show evidence of original thinking, the ability to analyze, and to present arguments effectively. Unacceptable projects include book reports, plot summaries, or translations. The project should, in some way, be linked to the student's course work within the Russian major, i.e., the student should have some academic background in a particular area of study before undertaking to write a paper in that area. The language of the paper should be English. The paper should present evidence of appropriate use of Russian-language sources.
Class time: 25% discussion, 75% guided research
Work load: 20-25 pages of writing per semester, 1 papers
Grade: 100% , finished research paper

Russ 3421 Literature: Middle Ages to Dostoevsky in Translation
(Sec 001); prereq—=5421; meets CLE req of Literature Core; 3 cr
Instructor: Jahn, Gary R
This is an historical survey of the development of Russian literature from its origins in the tenth century until the onset of the most celebrated period in Russian literary history, that of Realism, in the middle of the 19th century. The course consists of a combination of lecture and class discussions. Students will read a representative sampling of works from various periods. These will include selections from Old Russian Literature (chronicle accounts, hagiographic works, "The Life of Archpriest Avvakkum", and

others) and from the literature of the 18th century (selections from Lomonosov, Sumarokov, and Karamzin). Approximately three-fifths of the course will be devoted to the literature of the first half of the 19th century. Students will read works by Pushkin, Gogol, Dostoevsky, and Turgenev. All told, required reading amounts to approximately 2,000 pages. Grades in this course are based upon performance on the mid-term and final examinations, on contributions to class discussion, and on the quality of the term paper. The term paper is optional for those enrolled in Russian 3421 and required of those enrolled in Russian 5421.
Class time: 50% lecture, 50% discussion
Work load: 60 pages of reading per week, 2 exams
Grade: 30% mid-semester exam(s), 50% final exam, 20% class participation
Course URL: www1.umn.edu/lol-russ/hpgary/gary.htm

Russ 3512 Russian Art and Culture from Peter I to the Present
(Sec 001); meets CLE req of Other Humanities Core; 3 cr
Instructor: Corten, Irina H
The purpose of this course is to acquaint students with a variety of forms and expressions in Russia's artistic culture from the 18th century to the present. Students will be introduced to Russian visual arts, music, cinema, literature, and folklore. Pertinent historical, social, and intellectual developments will be discussed. Works of art will be considered both for their aesthetic merit and cultural context, that is, in terms of the ideas, norms and values prevalent in Russian society at the given time. Discussions will be structured around several major themes, e. g., innovation and tradition; influences of West (Europe) and East (Asia); the question of national identity; ideology and censorship, the status of women, etc. The material will be presented through lectures, discussions, and audio-visual material. Evaluation of achievement will be based on several book and film review essays, two take-home essay-style exams (midterm and final), and class participation. The course is required for Russian majors and recommended for Russian minors and students in Area Studies programs. It also is suitable for anyone else interested in Russian art and culture. No knowledge of Russian language is required.
Class time: 20% lecture, 20% discussion, 60% audio-visual presentations
Work load: 15-20 pages of reading per week, 7 pages of writing per semester, 2 exams, several film and book reviews
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation
Exam format: Essays

Russ 3993 Directed Studies
(Sec 001); max crs 4; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
The purpose of this course, offered at the discretion of the faculty, is to provide individualized instruction to undergraduate students wishing to explore specialized topics not covered in regular course offerings. The number of faculty in the Russian program being small, no more than 3-5 students per year can be thus accommodated; preference is given to students in 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.

Russ 5211 Modern Russian Literature in Translation
(Sec 001); Same as: RUSS 3211; 3 cr
Instructor: STAFF
This course introduces students to major authors and the cultural content of Russian literature from 1917 to the present. Literary works are studied for their artistic merit and for their social, political, and ideological significance. Among the subjects covered are the Bolshevik revolution, feminism, Stalinism and socialist realism, dissidence and changes during the Soviet period. The format of the course is lecture and discussion. This course is reading-intensive.
Class time: 75% lecture, 25% discussion
Work load: 100+ pages of reading per week, 2 exams
Grade: 50% mid-semester exam(s), 50% final exam
Exam format: Essay

Russ 5421 Literature: Middle Ages to Dostoevsky in Translation
(Sec 001); prereq—=3421; 3 cr
Instructor: Jahn, Gary R
This is an historical survey of the development of Russian literature from its origins in the tenth century until the onset of the most celebrated period in Russian literary history, that of Realism, in the middle of the 19th century. The course consists of a combination of lectures and class discussions. Students will read a representative sampling of works from various periods. These will include selections from Old Russian Literature (chronicle accounts, hagiographic works, "The Life of Archpriest Avvakkum", and others) and from the literature of the 18th centrury (selections from Lomonosov, Sumarokov, and Karamzin). Approximately three-fifths of the course will be devoted to the literature of the first half of the 19th century. Students will read works by Pushkin, Gogol, Dostoevsky, and Turgenev. All told, required reading amounts to approximately 2,000 pages. Grades in this course are based upon performance on the mid-term and final examinations, on contribution to class discussion, and on the quality of the term paper, The term paper is optional for those enrolled in Russian 3421 and required of those enrolled in Russian 5421.
Class time: 50% lecture, 50% discussion
Work load: 60 pages of reading per week, 2 exams, 1 papers
Grade: 25% mid-semester exam(s), 45% final exam, 20% written reports/papers, 10% class participation
Exam format: essay, short answer
Course URL: www1.umn.edu/lol-russ/hpgary/gary.htm

Russ 5993 Directed Studies
(Sec 001); max crs 16; 4 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
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 their final year of the Russian major and to graduate students in Russian Area Studies. The content and proceedures 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.
Class time: 100% guided research and discussion
Work load: amount of reading and writing variable, depending on # of credits
Grade: 100% , 100% student's work evaluated on the basis of variable course criteria

Scandinavian
205 Folwell Hall; 612-625-2080

Scan 3503 Scandinavian Folklore
(Sec 001); meets CLE req of Literature Core; 3 cr
Instructor: Grimstad, Kaaren E
This course focuses on folktales, legends, jokes and anecdotes as literature that informs us about culture. We will look at form and content in these genres and survey several theoretical approaches to the material. Class sessions will consist of lecture and small group discussions. Primary reading material will include examples from all the Nordic countries, including Finland. The target audience includes both majors and non-major undergraduates.
Class time: 50% lecture, 50% discussion
Work load: 50 pages of reading per week, 25 pages of writing per semester, 2 papers
Grade: 75% written reports/papers, 25% class participation
Exam format: no exams

Scan 3601 Great Literary Works of Scandinavia
(Sec 001); meets CLE req of Literature Core; 3 cr
Instructor: Houe, Poul
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 (early to mid 19th C); one play by Ibsen and one by Strindberg and a novel by Hamsun (late 19th C); poems by Edith S÷dergran (early 20th C); and international bestsellers by H°eg and Ullman (1990s). 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.
Class time: 50% lecture, 50% discussion
Work load: 75 pages of reading per week, 15 pages of writing per semester, 1 exams, 2 papers

Grade: 30% final exam, 60% written reports/papers, 10% class participation
Exam format: Essay/take-home exam

Scan 3613 Children's Literature in Scandinavia

(Sec 001); meets CLE req of Literature Core; 3 cr
Instructor: Mishler, William E
This course explores the rich literature written for children in Scandinavia from the 18th to the 20th century, with selections from Denmark, Sweden, Norway, and Finland. The works of such classic authors such as Ludvig Holberg, Hans Christian Andersen, Astrid Lindgren and Tove Janson will be read, as well as some perhaps lesser known but equally interesting writers from the modern and contemporary period. The roots of children's literature in the folk and fairy tale traditions will also be explored. There will be course packet with selected historical, methodological and critical readings concerning children's literature. All readings are in English.
Class time: 50% lecture, 40% discussion, 10% Film and video adaptations
Work load: 50 pages of reading per week, 100 pages of writing per semester, 2 exams, Weekly response papers. One term paper
Grade: 30% mid-semester exam(s), 30% final exam, 20% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: Essay

Scan 3634 Scandinavian Women Writers

(Sec 001); 3 cr
Instructor: STAFF
Many of Scandinavia's most important writers have engaged in issues of sexual difference and women's emancipation. The aim of this course is to reflect the discussion of women's emancipation through literary texts, and to discuss the intertwinement of progressive thought and literary representation. The concept of emancipation is to be understood in a broad sense: some of these writers demanded political authority and social rights, others were focused on personal and/or sexual freedom. The works that will be brought up are all regarded as landmarks in Scandinavian writing, and will be considered because of their literary qualities as well as their progressive ideas. Although the course is focused on literary texts, it will also give the opportunity to speculate on the nature of emancipatory claims. We will focus on some major women authors, and a couple of male ones, from the 17th century onwards. The course is limited to texts that have been translated into English. Students of Scandinavian will have the possibility to read in the original languages as well. Writers included in the course are: Queen Kristina, Carl Jonas, Love Almqvist, Soren Kierkagaard, Fredrika Bremer, Amalie Skram, Selma Laglerlof, Ellen Key, Edith Sodergran, Karen Blixen, Suzanne Brogger, Kerstin Ekman, Katarina Frostenson. This course is designed for undergraduate students in Scandinavian Literature, Gender Studies and Comparative Literature.
Class time: 70% lecture, 30% discussion
Work load: 75 pages of reading per week, 1 exams, 2 papers
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 25% class participation
Exam format: Students will be writing 2 short papers, 1 mid-term and 1 at the end of the term. In addition, they

Scan 3670 Topics in Scandinavian Studies: The Kalevala

(Sec 001); max crs 9; 3 repeats allowed; 3 cr
Instructor: Wakefield, Ray M
Once in a while, a book can change the course of history. Such is the case with the Kalevala, the Finnish national epic. In 1835, a young rural doctor, Elias Lonnrot, produced an epic that he hoped would give the Finnish people a sense of their past, an inkling of their ancient roots. Lonnrot's. epic helped create a national identity for the Finnish people, became a source of strength and inspiration for subsequent generations, and led to the abundant collection of all sorts of oral tradition in Finland ever since. In this course, we will read and discuss the Kalevala, examine the epic, lyric, and magic song traditions Lonnrot drew on to create it, and assess its place in Finnish history. We will also explore other kinds of Finnish folklore, including song, dance, folktales, legends, proverbs, riddles and children's lore from the mid-nineteenth century down to today. In the final portion of the course we will examine the ways in which Finnish Americans have preserved folklore on this continent, sometimes adding their own spin to their ancestors' ancient traditions.
Class time: 60% lecture, 40% discussion, Simultaneous video link with U Wisc-Madison course
Work load: 40 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation

Scan 3993 Directed Studies

(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
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 4614 Introduction to Kierkegaard

(Sec 001); 3 cr
Instructor: Houe, Poul
The Danish philosopher Soren Kierkegaard (1813-55) was one of the most original thinkers and writers of the 19th century. He assaulted traditional Western philosophy and the social and religious smugness of his time. Probing the question: What does it mean to be(come) a fully human being, Kierkegaard made a compelling case for the personal and subjective and paved the way for the literary and philosophical movement of Existentialism. He became one of the dominant cultural forces of the 20th century and his influence is growing. The course is an introduction to Kierkegaard as a literary, philosophical, psychological, and religious writer. It relates his work to the Golden Age of 19th century Denmark and outlines his influence upon 20th century thinkers and writers worldwide. His controversy with systemic reason and institutionalized religion will be explored in texts that are also relevant to modern readers. Attention to the poetic dimension of Kierkegaard's writings is key to an understanding of his concerns. When he communicated his uncompromising ideas indirectly—under the guise of pseudonymity, irony, and other artistic devices—it was to entice the reader to undertake a personal search for existential and religious truth. A joint day/University College class.
Class time: 50% lecture, 50% discussion
Work load: 75 pages of reading per week, 15 pages of writing per semester, 1 exams, 2 papers
Grade: 30% final exam, 60% written reports/papers, 10% class participation
Exam format: Essay/take-home exam

Scan 5670 Topics in Scandinavian Studies: The Kalevala

(Sec 001); max crs 9; 3 repeats allowed; 3 cr
Instructor: Wakefield, Ray M
Once in a while, a book can change the course of history. Such is the case with the Kalevala, the Finnish national epic. In 1835, a young rural doctor, Elias Lonnrot, produced an epic that he hoped would give the Finnish people a sense of their past, an inkling of their ancient roots. Lonnrot's. epic helped create a national identity for the Finnish people, became a source of strength and inspiration for subsequent generations, and led to the abundant collection of all sorts of oral tradition in Finland ever since. In this course, we will read and discuss the Kalevala, examine the epic, lyric, and magic song traditions Lonnrot drew on to create it, and assess its place in Finnish history. We will also explore other kinds of Finnish folklore, including song, dance, folktales, legends, proverbs, riddles and children's lore from the mid-nineteenth century down to today. In the final portion of the course we will examine the ways in which Finnish Americans have preserved folklore on this continent, sometimes adding their own spin to their ancestors' ancient traditions.
Class time: 60% lecture, 40% discussion, Simultaneous video link with U Wisc-Madison course
Work load: 40 pages of reading per week, 15 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% class participation

Scan 5701 Old Norse Language and Literature

(Sec 001); 3 cr
Instructor: Grimstad, Kaaren E
This course is devoted to developing an understanding of the grammatical structure and acquiring a reading knowledge of Old Norse by reading texts. Translation techniques include both close reading of texts with parsing and rapid reading for content only. The target audience is broad: upper level undergraduates and graduates, both majors and non-majors. It is helpful if the student has some knowledge of another language, especially one with a complex grammar structure such as Latin or German.
Class time: 100% translation of texts
Work load: 30-50 lines of text per week
Grade: 100% quizzes
Exam format: passage to be translated with questions on grammar

Scan 5993 Directed Studies
(Sec 001); max crs 12; 12 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
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.

Science in Agriculture

Dept Bioproducts & Agricultural Engineering 612-624-7254

ScAg 4009W Undergraduate Senior Thesis: Science in Agriculture
(Sec 001); max crs 12; 12 repeats allowed; A-F only; prereq—jr or sr major in ScAg, instr consent; meets CLE req of Writing Intensive; 1-6 cr
Instructor: STAFF
This course is for Science in Agriculture majors in the College of Agricultural, Food, and Environmental Sciences. This course provides the mechanism by which students complete the undergraduate thesis requirement. This course is used for the full thesis research experience, ranging from topic identification and development of the proposal through analysis, interpretation, and reporting of study results.
Class time: 100% laboratory
Work load: Check with your research mentor (approx. 42-49 hrs per semester).
Grade: 10% in-class presentations, 90% lab work

Sociology

909 Social Sciences Tower 612-624-4300

Soc 1001 Introduction to Sociology
(Sec 015); prereq—credit cannot be granted if credit received for 1011V or 1012W; meets CLE req of Writing Intensive; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; 4 cr
Instructor: Gerteis, Joseph Howard
Sociology is the study of human social relations and the social order that results from them. In this class, we will examine how social relations result from, reproduce, and sometimes change our social environment. This perspective will be our common thread as we study many different topics. There are three major parts to the course. First, we will study social relations themselves: how they are formed and maintained, and how our face-to-face interactions with others allow us to define our place in social life and understand our surroundings. We will then see how these relations shape many aspects of our society, including our economic, educational, and political systems. Finally, we will examine how, why, and when social life changes.
Class time: 60% lecture, 25% discussion, 15% films/videos
Work load: 40 pages of reading per week, 10 pages of writing per semester, 2 exams, Assignments are designed to give students experience in working with different kinds of data and in
Grade: 30% mid-semester exam(s), 35% final exam, 30% written reports/papers, 5% quizzes
Exam format: Exams consist of multiple choice questions, identification of terms, and short essays

Soc 1011V Honors: Introduction to Sociology
(Sec 001); prereq—credit cannot be granted if credit received for 1011V or 1012W; honors; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; meets HON req of Honors; 4 cr
Instructor: Gerteis, Joseph Howard
Sociology is the study of human social relations and the social order that results from them. In this class, we will examine how social relations (being friends with, loving, hating, or even just knowing someone) results from and reproduces our social environment. The class is divided into three sections. First, we will study social relations: how they are formed and maintained and how they give meaning to our lives. We will then see how these relations shape many different aspects of our society, including our economic, educational, political and legal systems. Finally, we will examine how, why, and when major change occurs. This course is for honors students who want more engagement with the course topics, the professor, and each other.
Class time: 60% lecture, 20% discussion, 20% Exercises, group work, videos
Work load: 40 pages of reading per week, 10 pages of writing per semester, 2 exams, Two short, focused, analytical projects
Grade: 25% mid-semester exam(s), 35% final exam, 25% written reports/papers, 5% quizzes, 10% class participation
Exam format: Multiple choice, along with identification and essay

Soc 3211W American Race Relations
(Sec 001); A-F only; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 3 cr
Instructor: Hartmann, Douglas R
"The problem of the 20th century," W.E.B. DuBois wrote at the turn of the 20th century, "is the problem of the color line." 100 years later, there is a much evidence that would seem to vindicate DuBois's prediction. If most Americans can agree that race is a problem in the US, there is great disagreement about almost everything else having to do with race. This course is designed to help students begin to develop their own informed perspectives on American racial "problems" by introducing them to the ways that sociologists deal with race/race relations/racism. We begin by talking about racial identities/attitudes in the US, the ways in which these have changed since the Civil Rights movement, and the kinds of conceptual tools and empirical information needed to properly think about race in contemporary America. We will examine the experience(s) of African Americans in the post-Civil Rights period and the coterminous realities of racism, whiteness and white privilege. After midterm, we will expand our understanding of racial/ethnic dynamics by exploring the experiences of other communities of color & how these intersect with class & gender. We will focus on immigration, & the importance of race/ethnicity in contemporary Amer. cities. The course will conclude by giving close consideration to issues of assimilation/pluralism/diversity. Our goal will be to consider race as a source of identity & difference as well as a system of privilege, power & inequality affecting everyone.
Class time: 60% lecture, 30% discussion, 10% videosother AV materials
Work load: 75-100 pages of reading per week, 12 pages of writing per semester, 2 exams, 3 papers, writing intensive
Grade: 20% mid-semester exam(s), 20% final exam, 45% written reports/papers, 10% quizzes, 5% class participation
Exam format: short answer and identification

Soc 3811 Basic Social Statistics
(Sec 001); prereq—GC 0731 or intermediate algebra; 3801 recommended; 4 cr
Instructor: Knoke, David H
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 statistics, means tests, correlation and regression. Many examples are drawn from diverse sociological topics and illustrated with national survey data.
Class time: 50% lecture, 10% discussion, 40% laboratory
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers, bi-weekly lab assignments, final project
Grade: 30% mid-semester exam(s), 15% final exam, 25% written reports/papers, 30% lab work
Exam format: computational
Course URL: www.soc.umn.edu/~knoke

Soc 4090 Topics in Sociology: Love, Sex, and Marriage
(Sec 001); max crs 3; 3 cr
Instructor: Hull, Kathleen E
This course will provide an overview of sociological approaches to intimate human relationships. Specific topics include, dating, romance, sexuality, cohabitation, and marriage. Current U.S. practices are placed in historical and cross-cultural context.
Class time: 60% lecture, 30% discussion, 10% Screening of videos
Work load: 40-50 pages of reading per week, 25 pages of writing per semester, 2 exams, 4 papers
Grade: 20% mid-semester exam(s), 30% final exam, 40% written reports/papers, 10% class participation
Exam format: Multiple choice, short answer and essay mix
Course URL: www.soc.umn.edu/~hull/

Soc 4102 Criminology
(Sec 001, 002); A-F only; prereq—[3101, 3102, 3111] or instr consent; 3 cr
Instructor: STAFF
This seminar examines involvement in crime and violence. First, it surveys classical and contemporary perspectives in criminological theory. We will examine the assumptions, logical structure, and etiological dimensions of various perspectives that seek to explain crime. We will further consider various empirical tests of these different approaches to understanding offending. Second, it examines research on the nature of offending in society. This involves issues of specialization, escalation and desistance, predictability of offending, stability and change in involvement in crime over the life course, and other general issues of offending within- and across people. This course might be useful to someone specializing in law, crime, and deviance or someone anticipating doing research on issues of crime and criminal justice.

Soc 4161 Criminal Law in American Society
(Sec 001, 002); prereq—[3101, 3102, 3111] or instr consent; 3 cr
Instructor: Samaha, Joel B **!!CLA Distinguished Teaching Award!!**
General purposes and principles of criminal law and their underlying policy and philosophy. Topics include: Bill of Rights and criminal law; elements of crime that prosecution has to prove beyond a reasonable doubt; accomplice and attempt liability; defenses to criminal liability; and the application of the general purposes and principles to criminal homicide and criminal sexual conduct. Read and discuss actual cases explaining and applying general purposes and principles to real crimes. Course is based on intensive class discussion. Aimed at upper division undergraduates, including all majors.
Class time: 20% lecture, 80% discussion
Work load: 35 pages of reading per week, 5 exams
Grade: 20% quizzes, 80% , 5 non-cumulative exams
Exam format: definitions and essay
Course URL: www.soc.umn.edu/~samaha

Soc 4461 Sociology of Ethnic and Racial Conflict
(Sec 001); A-F only; prereq—1001 or instr consent; 3 cr
Instructor: Hironaka, Ann Mari
Ethnic conflict is a pervasive phenomenon of the modern world. Few countries escape it—Western industrialized countries and non-Western, less-developed countries alike seem to experience the civil unrest that accompanies ethnic conflict. This course will examine the causes of racial and ethnic conflict from a sociological point of view. Economic, political, and cultural explanations will be explored by examining a variety of cases of ethnic conflict in Africa, Asia, and Latin America. This course is open to undergraduates of all majors.
Class time: 80% lecture, 20% discussion
Work load: 50 pages of reading per week, 15 pages of writing per semester, 2 exams, 3 papers
Grade: 15% mid-semester exam(s), 30% final exam, 45% written reports/papers, 10% class participation
Exam format: Short essay

Soc 4703 Social Theory and Cultural Change
(Sec 001); A-F only; prereq—1001 or instr consent; 3 cr
Instructor: Hull, Kathleen E
This course addresses how cultural change occurs and why or whether cultural change matters. Major focus is late 20th-century U.S. culture, but with attention to the impact of globalization on cultural change. Is American culture becoming too individualistic? Are the values of community, family and social connection in decline? How have newer technologies, such as television and computers, affected cultural life? Has the pace of American culture accelerated, and if so has the speed-up gone too far? Is our culture obsessed with fame and celebrity, causing us to perceive all of life through the lens of entertainment? What happens when cultures come into conflict? Is globalization leading to a homogeneous "world culture"? These are the kinds of questions addressed in the course.
Class time: 60% lecture, 30% discussion, 10% Screening of videos
Work load: 50 pages of reading per week, 20 pages of writing per semester, 1 exams, 3 papers
Grade: 30% mid-semester exam(s), 65% written reports/papers, 5% class participation
Exam format: Multiple choice, short answer and essay mix
Course URL: www.soc.umn.edu/~hull

Soc 5811 Intermediate Social Statistics
(Sec 001); prereq—3811 or equiv; 4 cr
Instructor: STAFF
This course introduces basic statistical concepts ranging from simple descriptive statistics through regression analysis. In addition, the course introduces relevant statistical computing softward needed to do social research. The course is designated primarily for first-year graduate students in sociology, and thus emphasizes methods and examples relevant to sociolgy. Others may register if space is available.
Class time: 50% lecture, 50% laboratory

Soil, Water, and Climate
439 Borlaug Hall; 612-625-1244

Soil 1425 Introduction to Meteorology
(Sec 001); Same as: GEOG 1425; prereq—both Soil 1425 and 1426 must be completed to count for Phys Sci/L CLE req; meets CLE req of Environment Theme; meets CLE req of Physical Science/Lab Core; 3 cr
Instructor: Klink, Katherine
Why does the wind blow? How do clouds affect the climate? What is El Nino, anyway? In this course we will try to answer these and other questions about our atmosphere, weather, and climate. Our objectives are also to understand the basic energy sources that drive the weather, to gain insight into how weather forecasts are assembled and evaluate uncertainty in weather forecasting, and understand the basic principles of atmospheric circulation. Each lecture includes a daily weather discussion that makes use of weather information available via the www. This course is targeted to non-science majors. When taken along with Geog/Soil 1426W, this course fulfills the CLE "Physical Science with Lab" requirement.
Class time: 80% lecture, 20% discussion
Work load: 30 pages of reading per week, 10 pages of writing per semester, 4 exams, 2 papers
Grade: 20% final exam, 35% written reports/papers, 45% quizzes
Exam format: Multiple choice, short answer, short essay
Course URL: www.geog.umn.edu/faculty/klink/geog1425

Soil 1426W Introduction to Meteorology Laboratory
(Sec 001, 002); Same as: GEOG 1426W; prereq—both Soil 1425 and 1426 must be completed to count for Phys Sci/L CLE req; meets CLE req of Physical Science/Lab Core; meets CLE req of Writing Intensive; 2 cr
Instructor: Klink, Katherine
This laboratory course is an accompaniment to Geography/Soil 1425: Introduction to Meteorology. The lab is intended to introduce some of the methods and techniques used by atmospheric scientists to understand weather and climate. Some labs will be web-based, some observation-based, and some involve calculation and map analysis.
Class time: 100% laboratory
Work load: 5 pages of reading per week, 40 pages of writing per semester, 1 papers
Grade: 100% lab work
Exam format: No exams
Course URL: www.geog.umn.edu/faculty/klink/geog1426

Soil 2125 Basic Soil Science
(Sec 001); prereq—credit will not be granted if credit received for: 1125; Chem 1011 or Chem 1021 or equiv; meets CLE req of Environment Theme; 4 cr
Instructor: Cooper, Terence H **!!Morse Alumni Award!!**
This course is designed for undergraduates who have completed some of the basic sciences (biology, chemistry). The course covers the 5 basic areas of: 1) Soil classification; 2) Soil formation; 3) Physical properties; 4) Biological properties; and 5) Chemical properties. Students must use the WWW to read required information before doing hands-on laboratory activities. Web exams, team exams, lecture dyads, lab reports, land-use project and final exam are used to determine course grades. Lecture notes on the WWW
Class time: 60% lecture, 40% discussion
Work load: 20 pages of reading per week
Grade: 40% mid-semester exam(s), 10% final exam, 20% quizzes, 10% lab work, 20% , land use project

Soil 3416 Plant Nutrients in the Environment
(Sec 001); prereq—2125; 3 cr
Instructor: Malzer, Gary L
This course presents fundamental concepts in soil fertility and plant nutrition. The lecture emphasizes the basic concepts of nutrient availability to plants, and transport through the environment, whle the discussion deals with practical applications of nutrient management and losses to the

environment. Evaluation, interpretation, and correction of nutrient problems are presented. Designed for undergraduate students in the area of plant and soil science and environmental science.
Class time: 50% lecture, 50% discussion
Work load: 15 pages of reading per week, 15 pages of writing per semester, 3 exams, 1 papers
Grade: 35% mid-semester exam(s), 15% final exam, 10% written reports/papers, 30% special projects, 10% problem solving
Exam format: objective essay

Soil 3521 Soil Judging
(Sec 001); max crs 3; 3 repeats allowed; prereq—4511; 1 cr
Instructor: Cooper, Terence H **!!Morse Alumni Award!!**
Students who participate in the regional or national soil judging contest are eligible to enroll in this course. Soil judging contests are in October and require 4 days of commitment. Students should have completed Soil 4511
Class time: 100% Field trip to contest
Grade: 100% final exam

Soil 4093 Directed Study
(Sec 001); max crs 20; 20 repeats allowed; prereq—instr consent; 1-7 cr
Instructor: STAFF
Students who want to explore a special topic of their interest should visit with a faculty member who will direct their exploration. Report length dependent on the credits.
Class time: Independent research

Soil 4094 Directed Research
(Sec 001); max crs 7; prereq—instr consent; 1-7 cr
Instructor: STAFF
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.
Class time: Independent study

Soil 4216 Contaminant Hydrology
(Sec 001); 2 cr
Instructors: Gupta, Satish C; Hansen, Neil Charles
The course covers the principles of contaminant transport both in percolate solution and in overland flow. Topic discussion is mostly descriptive (minimal use of equations) but includes several examples that involve computations. Specific topics include hydrologic cycle; Darcy's flux, pore water velocity, piston flow, diffusion-dispersion processes, and chemical degradation; contaminant travel time and distance to travel; methods of characterizing contaminant leaching; Henry's law and vapor phase transport; description of remediation technologies; methods to calculate and measure runoff; tillage impact on runoff; impact of runoff on lake and river water quality; management practices to control runoff and associated contaminants (sediment and P) losses. I would also have one or two consultants come in the class and talk about specific case studies. We will also take a tour of a remediation site in town.
Class time: 100% lecture
Work load: 70 pages of reading per week
Grade: 40% mid-semester exam(s), 35% final exam, 25% problem solving
Exam format: multiple choice, essay

Soil 4601 Soils and Pollution
(Sec 001); prereq—[2125, [Chem 1021 or equiv], [Phys 1042 or equiv]] or instr consent; 3416 recommended; 3 cr
Instructor: Bloom, Paul Ronald
The course was developed for upper division students in the environmental sciences. The major topics are the mitigation of pollution in agricultrual and urban settings, as well as remediation of polluted sites. The course work applies the principles of microbiology, chemistry, and physics to evaluation of pollution in soils and to the remediation of polluted soils. All lectures are given using PowerPoint and the lecture notes are made available on the course web site. Guest speakers from state regulatory agencies will be utilized for some of the topics. There will be 2 field trips to sites in the Twin Cities. Textbook: "Pollution Science", by Pepper, Gerba and Brusseau (1996).
Class time: 80% lecture, 20% discussion
Work load: 40 pages of reading per week, 20 pages of writing per semester, 3 exams
Course URL: www.soils.agri.umn.edu/academics/class/courses.html

Soil 5111 Practicum Internship in Precision Agriculture
(Sec 001); max crs 5; S-N only; 2-5 cr
Instructor: Robert, Pierre C
Practical experience in the field of study relevant to precision agriculture in agri-industry/business. Content and extent of student work at the internship site will be jointly decided by the instructor, host business representative, and student's principle adviser.
Class time: 100% Internship
Work load: 10 pages of reading per week, 10 pages of writing per semester, 1 papers, Bi-weekly progress report
Grade: 30% written reports/papers, 70% , Internship host report
Exam format: Oral

Soil 5232 Vadose Zone Hydrology
(Sec 001); prereq—[Math 1271 or equiv], [Phys 1042 or equiv]; 3 cr
Instructor: Gupta, Satish C
This course is intended for undergraduates and graduate students in Soil, Water, & Climate, Water Resources, Institute of Technology, Environmental Sciences, and Natural Resources. The course covers soil physical properties and processes that govern the transport of mass and energy in soils. Major emphasis is on water and solute transport through the vadose zone and their impact on subsurface hydrology and water quality. Specific topics include energy state of soil water, soil water retention characteristics, saturated and unsaturated hydraulic conductivities, Poiseuille and Darcy laws, law of mass conservation, water flow through uniform and layered soils, water infiltration equations, mechanisms of contaminant transport, preferential flow, contaminant adsorption and decay, transport of volatile organic compound, soil thermal properties, steady and non-steady state heat flow, and convective and diffusive gas fluxes. The lectures are supplemented with hands on laboratory exercises on methods of measuring hydraulic, thermal, and gas properties of soils, and methods of characterizing water, contaminants, heat, and gas fluxes in soils. We also have one to two guest lectures from scientists working in the Environmental Consulting Companies and State Agencies.
Class time: 70% lecture, 30% laboratory
Work load: 10 pages of reading per week, 20 pages of writing per semester, 3 exams, 0 papers
Grade: 30% mid-semester exam(s), 25% final exam, 25% written reports/papers, 20% problem solving
Exam format: multiple choice and identification

Soil 5515 Soil Genesis and Landscape Relations
(Sec 001); prereq—2125 or instr consent; 3 cr
Instructors: Nater, Ed **!!COAFES Distinguished Teaching Award!!**; Bell, Jay
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; paleosoils 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 Systerm. 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 sruveys 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.
Class time: 80% lecture, 20% Field trips
Work load: 20 pages of reading per week, 20 pages of writing per semester, 3 exams, 1 papers
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/papers, 30% special projects
Exam format: Essay
Course URL: www.soils.agri.umn.edu/academics/classes/soil5515

Soil 5555 Wetland Soils
(Sec 001); max crs 3; A-F only; prereq—1125 or 2125 or equiv or instr consent; concurrent enrollment 4511 recommended; 2-3 cr
Instructor: Bell, Jay
Course focuses on the morphology, chemistry, hydrology and formation of mineral and organic soils in a wet environment. Students will study: 1) the biogeochemical processes involved in the genesis of hydromorphic soils, 2) soil hydrology for a variety of landscape settings, 3) soil morphological indicators of wet conditions, and 4) how to interpret soil-landscapes. In addition to field trips to study soils in a field setting, students will delineate the hydric soils boundary for a wetland site near campus and develop a comprehensive report of their findings. Additional topics include peatlands, wetland benefits, preservation, regulation, mitigation, and instrumentation to monitor soil water and redox fluxes. Course material is not of an introductory nature and assumes prior knowledge of soil science (an

introductory soils course) and the ability to integrate information from several disciplines in order to understand wetland processes. Scheduled in late afternoon to accommodate extension students. In addition to lectures, one hour-long recitation section is scheduled per week to concentrate on the terminology and methods used for soil profile descriptions, field instrumentation, and for in-depth discussion of lecture topics.
Class time: 50% lecture, 20% discussion, 10% laboratory, 20% Field trips/Field project
Work load: 20 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers, 6 problem solving assignments
Grade: 20% mid-semester exam(s), 20% final exam, 15% written reports/papers, 25% special projects, 20% problem solving
Exam format: Short essay
Course URL: www.soils.agri.umn.edu.academics/classes/soil5555

South Asian Languages and Cultures

453 Folwell Hall 612-625-6534

SALC 3201 Ancient Indian Literature in Translation
(Sec 001); meets CLE req of Literature Core; 3 cr
Instructor: Jungyhare, Indira Y !! **CLA Distinguished Teaching Award!!**
The objective of the course is to encourage students to study ancient Indian literature as an aesthetic experience as well as in social, cultural, religious, and historical contexts. The "Ramayana" and the "Mahabharata," the great Indian epics, continue to provide inspiration to later Indian literature. They are not only historical records of the cultures they reflect but also are valuable as unique and brilliant narrative expressions of human behavior. In addition to the study of the great epics, the course will briefly discuss Vedic and Upanishadic poetry, and Sanskrit plays and tales. All the genres will be analyzed with regard to their structure, themes, critical vocabulary and techniques. In addition to a formal approach to literature, the course examines ways to set literature in the context of history, society, and religion.
Class time: 50% lecture, 30% discussion, 20% films, videos
Work load: 25 pages of reading per week, 15 pages of writing per semester, 2 exams, 6 2-page papers
Grade: 40% mid-semester exam(s), 40% final exam(s), 20% written report(s)/paper(s)
Exam format: mostly essay

SALC 3413 Buddhism
(Sec 001); Same as: SALC 5413; meets CLE req of International Perspect Theme; meets CLE req of Other Humanities Core; 3 cr
Instructor: Jungyhare, Indira Y !! **CLA Distinguished Teaching Award!!**
The course surveys the origin and development of Buddhism in India from 500 B.C. to 1100 A.D. It discusses not only the demise of Buddhism in India and its 20th century revival but also the formation and development of both the Mahayana and the Theraravada religious traditions in India and abroad, including Tibet, China, Japan, Southeast Asia, and America. The course focuses on the historical development of Buddhism in terms of its philosophy and ritualistic practices. Hence the approach to the study is philosophical, historical, and comparative. Students gain a broad understanding of various philosophical concepts in the context of cultures and, consequently, learn about the similarities and differences in various Asian and American Buddhisms.
Class time: 60% lecture, 20% discussion, 20% films, guest speakers
Work load: 15 pages of reading per week, 25 pages of writing per semester, 2 exams
Grade: 40% mid-semester exam(s), 40% final exam(s), 20% written report(s)/paper(s)
Exam format: Multiple choice, essay

SALC 5201 Ancient Indian Literature in Translation
(Sec 001); 3 cr
Instructor: Jungyhare, Indira Y !! **CLA Distinguished Teaching Award!!**
The objective of the course is to encourage students to study ancient Indian literature as an aesthetic experience as well as in social, cultural, religious, and historical contexts. The "Ramayana" and the "Mahabharata," the great Indian epics, continue to provide inspiration to later Indian literature. They are not only historical records of the cultures they reflect but also are valuable as unique and brilliant narrative expressions of human behavior. In addition to the study of the great epics, the course will briefly discuss Vedic and Upanishadic poetry, and Sanskrit plays and tales. All the genres will be analyzed with regard to their structure, themes, critical vocabulary and techniques. In addition to a formal approach to literature, the course examines ways to set literature in the context of history, society, and religion.
Class time: 50% lecture, 30% discussion, 20% films, videos
Work load: 25 pages of reading per week, 2 exams, 6 2-page papers; 1 research paper (10-12 pages)
Grade: 30% mid-semester exam(s), 30% final exam(s), 20% written report(s)/paper(s); 20% research paper
Exam format: mostly essay

SALC 5413 Buddhism
(Sec 001); Same as: SALC 3413; 3 cr
Instructor: Jungyhare, Indira Y !! **CLA Distinguished Teaching Award!!**
The course surveys the origin and development of Buddhism in India from 500 B.C. to 1100 A.D. It discusses not only the demise of Buddhism in India and its 20th century revival but also the formation and development of both the Mahayana and the Theraravada religious traditions in India and abroad, including Tibet, China, Japan, Southeast Asia, and America. The course focuses on the historical development of Buddhism in terms of its philosophy and ritualistic practices. Hence the approach to the study is philosophical, historical, and comparative. Students gain a broad understanding of various philosophical concepts in the context of cultures and, consequently, learn about the similarities and differences in various Asian and American Buddhisms.
Class time: 60% lecture, 20% discussion, 20% other
Work load: 15 pages of reading per week, 25 pages of writing per semester, 2 exams, 1 paper
Grade: 30% mid-semester exam(s), 30% final exam(s), 20% written report(s)/paper(s), 20% research paper
Exam format: Multiple choice, essay

SALC 5993 Directed Studies
(Sec 001); max crs 5; prereq—instr consent, dept consent, college consent; 1-5 cr
Instructor: STAFF
Guided individual reading or study. Topics are related to South Asian languages and cultures. The focus differs from student to student, from sociocultural change to law, philosophy and religion. Various aspects of South Asian societies are studied from a variety of disciplinary perspectives, in social sciences as well as the humanities.
Class time: 100% one hour consultation/week and reading assignments, library research
Work load: 50 pages of reading per week, 1 papers
Grade: 100% special projects
Exam format: Essay-paper.

SALC 5994 Directed Research
(Sec 001); max crs 5; prereq—instr consent, dept consent, college consent; 1-5 cr
Instructor: STAFF
Guided individual research. Topics are related to South Asian languages and cultures. The research topic differs from student to student, from linguistics and literature to philosophy, religion and various aspects of South Asian culture.
Class time: 100% one hour consultation/week and reading assignments, library research
Work load: 50 pages of reading per week, 1 papers
Grade: 100% special projects

Spanish

34 Folwell Hall 612-625-3534

Span 1001 Beginning Spanish
(Sec 001-004); prereq—Less than 2 yrs of high school Spanish, dept consent; 5 cr
Instructor: STAFF
This course is strictly for students who have less than two years of high school Spanish. Permission numbers are required in order to register for this course. Students should bring their high school transcripts and an ID card to Folwell Hall 34 to obtain a number. Spanish 1001 focuses on the development of communication skills in listening, speaking, reading, and writing. One day a week students will watch "Destinos", an educational television program in Spanish. The text, "?Sabias que...?" 3rd ed., is accompanied by a workbook and audio tapes or CDs that are designed to be studied outside class. In this text students will cover material from the "Leccion Preliminar" through and including "Leccion 8". Grammar is covered in the homework assignments and reinforced in class with a variety of paired and small group activities. Spanish is spoken almost exclusively

in class. Since the majority of class time is devoted to speaking and listening, class attendance is critical.
Class time: 5% lecture, 15% cctv, 10% discussion, 1% laboratory, 60% Group work, reading and related activities
Work load: 10/20 pages of reading per week, 6 pages of writing per semester, 3 exams, 6 quizzes, 2 compositions, approximately 60-120 mins. study per day, 20 pages textbook and workbook
Grade: 20% final exam, 15% quizzes, 10% class participation, 55%, 10% listening and workbook exercises, 15% oral interview type evaluations, 10% written compositions
Exam format: All quizzes and tests evaluate listening, reading, vocabulary, grammar & writing. A minumum of multi

Span 1003 Intermediate Spanish

(Sec 001-030); prereq—[1002 or 1022] or entrance proficiency test; 5 cr
Instructor: STAFF
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 instructuon and practice. Reading skills are developed through "Conexiones", and writing skills are developed through a variety of writing assignments. Each student will present an oral presentation on a topic related to those covered in "Conexiones" or in class. Because Spanish class is about the only place where a student can practice listening and speaking, class attendance is critical.
Class time: 40% discussion, 60% communicative activies with language
Work load: 20 pages of reading per week, 10 pages of writing per semester, 4 exams, 3 papers, Daily participation in Spanish. Workbook and lab manual for 6 chapters. Oral group presentation. Ora
Grade: 30% mid-semester exam(s), 20% final exam, 15% written reports/ papers, 10% in-class presentations, 10% class participation, 5% lab work, 10%, Oral interview
Exam format: Diverse—essay—fill in blank—short answer

Span 1004 Intermediate Spanish

(Sec 001-028); prereq—1003 or entrance proficiency test or [instr consent,dept consent]; 5 cr
Instructor: STAFF
This course is for those who have successfully passed Spanish 1003 with a C- or have passed the Entrance Proficiency Test (EPT) for this level. This course is a requirement for Spanish 3015. In this course, you will build on the communicative speaking, writing, listening and reading skills that you acquired during the first three semesters of Spanish. The "Conexiones" series, text, lab manual and workbook, are used in class. Class activities are carried out almost entirely in Spanish. For the most part, grammar should be studied at home; a small percentage of class time is intended for grammar instruction and practice. Reading skills are developed through "Conexiones", and writing skills are developed through process writing, a multi-step writing process which entails composition writing, rewrites, journals, pop-quizzes, etc. You will also prepare and present a debate with other classmates. Because Spanish class is about the only place where you can practice listening and speaking, class attendance is critical. All students in a BA, BFA 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.
Class time: 10% lecture, 60—70% discussion; 20—30% listening, writing, testing for comprehension and vocabulary, and peer
Work load: 25/30 pages of reading per week, 10/15 pages of writing per semester, 3 exams, 1 composition; 2 mesa redonda
Grade: 50% quizzes, 10% class participation, 5% lab work, 15% written composition; 10% round-table discussion; 10% debate
Exam format: Exams evaluate listening, reading, vocabulary & grammar, writing & culture. A minimum of multiple ch

Span 1014 Business Spanish

(Sec 001); prereq—1003 or [dept consent, instr consent]; 4 cr
Instructor: STAFF
This course is for those who have successfully passed Spanish 1003 with a C- or have passed the Entrance Proficiency Test (EPT) for this level. In this course, you will build on the communicative speaking, writing, listening and reading skills that you acquired during the first three semesters of Spanish, but with a focus on business vocabulary, report writing skills, proper format for business communications and conversational fluency on trade-related topics. The "Pasajes" series, 4th ed: "Lengua" and Saldo a favor texts are used. 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. Because Spanish class is about the only place where you can practice listening and speaking, class attendance is critical. All students in a BA, BFA or BIS degree program in the CLA must take the Graduation Proficiency Test (GPT) as a requirement of the course unless they have already passed the GPT in this or another language.
Class time: 10% lecture, 60% discussion, 30% listening, writing, testing for comprehension and vocabulary, and peer editing,
Work load: 25 pages of reading per week, 7 TO 8 pages of writing per semester, 5 exams, 3 compositions, 1 oral presentation
Grade: 40% mid-semester exam(s), 15% final exam, 15% written reports/ papers, 10% in-class presentations, 10% class participation, 10%, 10% homework
Exam format: Listening, vocabulary, reading, short essay, grammar

Span 1022 Alternate Second-Semester Spanish

(Sec 001-025); prereq—Placement above 1001; 5 cr
Instructor: STAFF
This course is for the student who has studied two or more years of Spanish. The course provides a quick review of very beginning Spanish and at the end of this course students should be ready for Spanish 1003. Upon entering this course, the student should know basic vocabulary and be familiar with present and past tense forms. Spanish is spoken almost exclusively in class. Spanish 1022 focuses 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 newpapers 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.
Class time: 5% lecture, 15% cctv, 10% discussion, 10% laboratory, 60% group work, reading and related activities
Work load: 15/25 pages of reading per week, 10/15 pages of writing per semester, 5 exams, 3 compositions; approximately 60-120 mins. study per day, 20 pages textbook and workbook exercises (
Grade: 20% final exam, 10% class participation, 10% lab work, 60%, 25% unit exams,15% oral interview type evaluations, 10% written compositions and journals, 10% liste
Exam format: All quizzes and tests evaluate listening, reading, vocabulary, grammar & writing. A minumum of multi

Span 3015 Spanish Composition and Communication

(Sec 001-010); prereq—[1004 or 1014], GPT high pass; 4 cr
Instructor: STAFF
Spanish 3015 is the first of the upper division sequence for Spanish majors and minors. To enroll in this class, a student must take Spanish 1004 and successfully pass the Graduation Proficiency Exam (GPT) at the level set for majors and minors. 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.
Class time: 25% lecture, 50% discussion, 15% peer editing, 10% preparing and presenting projects
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 4 papers, 30% compositions, 20% examinations, 10% research paper, 10% oral presentation, 10% reader's journal,
Grade: 15% class participation, 5% participation in peer editing groups, 30% compositions and portfolio, 20% examinations, 10% reade
Exam format: Essays and short answers written in Spanish, together with grammar sections.

Span 3021 Advanced Communication Skills
(Sec 001, 002); prereq—3015 or [dept consent, instr consent]; 4 cr
Instructor: STAFF
Spanish 3021 is the second of the upper division sequence for majors or minors. Students who received an A or B in Spanish 3015 under the semester system and feel linguistically prepared, have the option to advance to the 31xx series in lieu of 3021; however, they may substitute it later for an elective course. While this class is designed to further develop and strengthen the language skills, it seeks to integrate in a meaningful and "real world" fasion the student's ability to write, speak, read and understand modern Spanish at a level that is expected of majors and minors. Students will write summaries of lectures given by native speakers, two papers and reader's journals. They will give an oral presentation and read a variety of texts. The class will employ diverse learning techniques—grammar review, audio tape exercises, paired work, small group work, all-class discussions, peer editing, and process writing—to provide students with the appropriate opportunities to enhance their language skills as they learn academic content through the active use of the Spanish language. This course requires a major time commitment on the part of each student registered.
Class time: 25% lecture, 50% discussion, 15% peer editing, 10% preparing and presenting projects
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 6 papers, 30% compositions, 20% examinations, 10% research paper, 10% oral presentation, 10% reader's journal,
Grade: 20% mid-semester exam(s), 20% quizzes, 10% in-class presentations, 10% class participation, 15% compositions and portfolio, 10% paper, 10% reader's journal, 25% final paper
Exam format: Essays and short answers written in Spanish, together with grammar sections.

Span 3104W Analysis and Interpretation of Texts
(Sec 001, 002, 004); A-F only; prereq—[3015, GPT high pass] or [instr consent, dept consent]; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 3 cr
Instructor: O'Connell, Joanna
This course, conducted entirely in Spanish, is one of the writing-intensive prerequisites to 3xxx-level courses in the major. It provides an important transition between language courses and literature courses. We will study concepts and basic tools for the interpretation of literary texts from the Spanish-speaking world, including poetry, short story, and drama. The course will include some lecture, but will be primarily discussion, in-class writing, work in small groups ,etc. Active participation is a must for improving your speaking, reading, and writing skills.
Class time: 30% lecture, 50% discussion, 20% In-class writing
Work load: 5-20 pages of reading per week, 20 pages of writing per semester, 1 exams, 4 papers
Grade: 70% written reports/papers, 10% quizzes, 20% class participation
Exam format: Essay

Span 3105W Introduction to the Study of Hispanic Civilizations
(Sec 001-005); prereq—[3015, GPT high pass] or [instr consent, dept consent]; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
La clase presenta un enfoque parcial del amplio panorama de la cultura y civilizacion hispanicas en Espana Latinoamerica y en los Estados Unidos. Vasto, pero limitado en su alcance, el curso se organiza cuidadosamente alrededor de un mosaico de segmentos interrelacionados que intentan explicar la compleja idiosincracia hispana. Motivo de discusion seran ciertos rasgos que tienden a formularse en las sociedades latinas: la religion y el fetichismo, la re-escritura de la historia, el discurso politico, el racismo y los grupos etnicos, la civilizacion y la barbarie, la revolucion y las nascientes democracias, la literatura, la musica, el teatro y el carnival etc. El proposito original del curso es familiarizar al estudiante con el funcionamiento de los mecanismos sociales que hacen de la sociedad hispana un fenomeno peculiar y distinto. En razon a ello, las clases tendran dos componentes basicos. Por un lado, el profesor presentara al inicio de cada seccion y en algunas clases los conceptos y los temas que seran enfatizados en al analisis de textos especificos recurriendo a los fuentes de infomacion disponibles, e.g., bibliotecas, bibliografias, revistas especializadas etc. Se requiere que los alumnos: 1) atiendan las explicaciones y tomen notas de las mismas; 2) estudien los topicos formales e historicos que aparecen en los textos asignados; 3) observen sistematicamente los videos presentados en clase; 4) formen grupos de discusion funcionales tanto dentro como fuera de clase.
Grade: 20% mid-semester exam(s), 20% final exam, 30% written reports/papers, 15% in-class presentations, 15% class participation
Exam format: take-home

Span 3107W Introduction to the Study of Hispanic Linguistics
(Sec 001-005); prereq—[3015, GPT high pass] or [instr consent, dept consent]; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
This course is an introduction to Linguistics conceived as theoretical discipline, with special attention to Hispanic Linguistics. The course is divided into the following components: (1) The Spanish language from a communicative perspective, (2) synchronic linguistics, which encompasses: (2.1) phonetics, (2.2) phonology, (2.3) morphology, (2.4) syntax, (2.5) lexicon, (3) diachronic linguistics: history of the Spanish language, (4) discourse analysis, pragmatics, (5) language and social context, (6) language, culture and ideology. Through these components, students are introduced to the study of Hispanic Linguistics and its relationships with social, cultural and literary studies. Teaching methods include lectures, discussions, group activities, and problem solving exercises. As this course has been designated writing intensive written reports and papers will be assigned.
Class time: 70% lecture, 30% discussion
Work load: 20 pages of reading per week, 20 pages of writing per semester, 2 exams, 2 papers, 2 homework assignments
Grade: 30% mid-semester exam(s), 15% final exam, 20% written reports/papers, 15% in-class presentations, 10% problem solving, 10% , group work
Exam format: fill in the blank, essay

Span 3221 Latin American Colonial Discourses Since 1492
(Sec 001); Credit will not be granted if credit has been received for: prereqAN 3221H, prereqAN 3421; prereq—credit will not be granted if credit received for: 3221 or 3421; [3104 or 3105], honors; 3 cr
Instructor: Jara, Rene
This course will entertain most of the foundational writings of Spanish America. Columbus' travelogue, Cortes official account of the Mexican conquest and its counterdiscourses, Cabeza de Vaca's and Lope de Aguirre's epic encounters with America. Garcilaso Inca's retrospective utopia and Guaman Puma's discourse of reinvindication, Alonso de Ercilla's epic of a Spain in shambles that finds a path for survival, the myth of the Mexican Virgen of Guadalupe and Saint Thomas and its corresponding Peruvian version, Sor Juana Ines de la Cruz and the birth of Creole consciousness—although these are topics that will be commented and analyzed as they relate to modern Latin America. This course is for Majors in Spanish. Students will have to keep a diary reporting their readings, class discussions, visual materials, and the instructor's lectures.
Class time: 25% lecture, 30% discussion, 45%
Work load: 50 pages of reading per week, 25 pages of writing per semester, videos, visual materials
Grade: 20% in-class presentations, 30% class participation, 50% , diary

Span 3401 Service Learning in the Chicano/Latino Community
(Sec 001-003); prereq—3015, GPT; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: Ganley, Kathleen Marie
This is a service-learning course in which students relate academic topics with service they do in an organization that works with the Chicano/Latino population. Students work 45 hours in the community over the semester. They also meet once per week for a 2 1/2 hour seminar. The class is composed of discussions (such as intercultural communication, racism, white privilege, bilingual education and immigration), guest speakers, role plays, videos and visits to the community.
Class time: 85% discussion, 15% Videos, role-plays, simulations.
Work load: 30-50 pages of reading per week, 13-26 pages of writing per semester, 1 papers
Grade: 50% written reports/papers, 20% class participation, 30% , participation in the community, discussion leader
Exam format: no exams

Span 3501 Spanish Civilization: Roots of Modern Spain and Latin America
(Sec 001); Credit will not be granted if credit has been received for: prereqAN 3411, prereqAN 3501H, prereqAN 3501H; prereq—credit will not be granted if credit received for: 3411, 3501H; 3105; 3 cr
Instructor: Egea, Alberto
Cultural developments linking the Reconquest in Spain, the national Spanish unification, the rise of the modern State, imperial expansion, conquest and colonization in the Americas, conditions leading to the decline of empire and the movements of independence in the Americas during the 19th century.
Class time: 50% lecture, 30% discussion
Work load: 50 pages of reading per week, 30 pages of writing per semester, 6 papers

Grade: 50% written reports/papers, 30% in-class presentations, 20% lab work
Exam format: Essay

Span 3512 Modern Latin American Civilization
(Sec 001); Credit will not be granted if credit has been received for: prereqAN 3412, prereqAN 3512H, prereqAN 3512H; A-F only; prereq—credit will not be granted if credit received for: 3412 or 3512H; 3 cr
Instructor: O'Connell, Joanna
This class, conducted entirely in Spanish, will consider some of the relations between daily life and symbolic production in modern Latin America. We will begin by exploring the emergence of ways of naming and mapping the hemisphere: where/what is Latin America? What is the history of cultures and the movement of peoples (indigenous, European, African, and Asian) that have given rise to what we imagine as Latin America today? What do we mean by such names as America, Hispanic, Latino, etc? What is the relation between Latin American and Latino? Using film, art, music, literature, the web, and the resources of the Twin Cities community, we will go on to examine a series of topics in historical perspective, including: the politics of language, writing, and education; food production, cooking, and the organization of social relations; music, dance, and identity; religious practices; etc. Students should expect to be active learners in this class, and to learn the basic steps of at least one Latin dance.
Class time: 25% lecture, 50% discussion, 25% Use of mulit-media
Work load: 5-30 pages of reading per week, 15-20 pages of writing per semester, 1 exams, 2 papers, Class journal
Grade: 20% final exam, 60% written reports/papers, 10% in-class presentations, 10% class participation
Exam format: Essay

Span 3701 The Structure of Spanish: Phonology
(Sec 001); Credit will not be granted if credit has been received for: prereqAN 3701H, prereqAN 3801; prereq—credit will not be granted if credit received for: 3701H or 3801; 3107; 3 cr
Instructor: Face, Timothy L
This course aims to provide undergraduate students with an understanding of the basic concepts of phonetics and phonology and to teach them to apply these concepts to Spanish. The course will be both conceptual and practical. The practical component will involve the students using the concepts learned in class to improve their own pronunciation of Spanish. Students will acquire skills in recognizing, producing, transcribing and describing in linguistic terms the sounds of Spanish and in understanding and analyzing the Spanish sound system. Some consideration will also be given to the Spanish orthographical system as it relates to the Spanish sound system.
Class time: 70% lecture, 20% discussion, 10% group activities
Work load: 15 pages of reading per week, 10 pages of writing per semester, 1 exams, 1 papers, project; periodic homework assignments/ quizzes
Grade: 20% final exam, 15% written reports/papers, 25% special projects, 30% quizzes, 10% , homework
Exam format: mixed format

Span 3920 Topics in Spanish-American Literature
(Sec 001); Credit will not be granted if credit has been received for: prereqAN 3320, prereqAN 3920H, prereqAN 3920H; max crs 9; 3 repeats allowed; A-F only; prereq—credit will not be granted if credit received for: 3920H 3320; 3104 or dept consent; 3 cr
Instructor: Ramos-Garcia, Luis A
Afirman los criticos que, al ser el teatro un instumento y social de primera importancia el dar luz verde a cietros textos teatrales significa privilegiar y validar determinados modelos culturales, desvalorizando efectivamente otros en el proceso. El curso se inclina, pues, a deconstruir ese discurso hegemonico que "tiende a ofrecer validez a sus propios codigos ideologicos, culturales y esteticos, "descalificando de paso los ahora abundantes discursos teatrales marginales, alternativos y disonantes. Tal dilema, hegemonia canonica versus marginalidad/alternancia, subyace en la concepcion estetica de una novisima generacion de dramaturgos hispanoamericanos que entra al tinglado, entre los anos ochentas y los mediados de la presente decada. La nuestra sera una aproximacion al desarrollo historico-social del teatro altemativo, acompanada de un blance critico de las corrientes postmodemistas que han ido modifcando la produccion de subgeneros teatrales experimentales tales como los teatros callejeros, populares, ritualistas, feministas, latinos, y/o marginales.
Class time: 45% lecture, 55% discussion
Work load: 80-100 pages of reading per week, 30 pages of writing per semester, 3 exams
Grade: 15% in-class presentations, 15% class participation, 70%, 3 take-homes: 20%-1st, 20%-2nd, 30%-final.
Exam format: Take-home essay

Span 3970 Directed Studies
(Sec 001); max crs 9; 3 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
Guided individual reading or study. Consult with the Undergraduate Advisor: Margaret Demmessie.

Span 5701 History of Ibero-Romance
(Sec 001); prereq—3703, two other 3xxx or 5xxx Spanish linguistics courses or instr consent; 3 cr
Instructor: Ocampo, Francisco Antonio
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 Pennisula. The general problem of linguistic change 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: Antonio Quilis & Joseph Fernandez, "Curso de fonetica y fonologia espanolas", Madrid: Consejo Superior de Investigaciones Cientificas, 1990, (ch 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12). Elementary knowledge of classical Latin, although not required, will be highly beneficial. The target audience is graduate students. Required text: Paul M. Lloyd, "Del Latin al Espanol, Fonologia y morfologia historicas de la lengua espanola", Madrid: Gredos.
Class time: 70% lecture, 30% discussion
Work load: 30 pages of reading per week, 2 exams, 10 weekly homeworks
Grade: 30% mid-semester exam(s), 30% final exam, 40% problem solving
Exam format: essay

Span 5716 The Structure of Modern Spanish: Pragmatics
(Sec 001); 3 cr
Instructor: Ocampo, Francisco Antonio
This course constitutes an introduction to the field of pragmatics. The main topics of the discipline are discussed: deixis, conversational implicature, presupposition, speech acts and conversational analysis. The target audience is graduate students.
Class time: 60% lecture, 40% discussion
Work load: 30 pages of reading per week, 2 exams, weekly assignments
Grade: 30% mid-semester exam(s), 30% final exam, 40% problem solving
Exam format: Essay

Sport Studies
220 Cooke Hall, 612-625-5300

SpSt 3143 Organization and Management of Sport
(Sec 001); Same as: KIN 3143; A-F only; prereq—SpSt major only; 3 cr
Instructor: STAFF
This course will focus on the fundamental process involved in the management of sport programs. The course will explore the historical nature of management as well as the processes, systems, and structures appropriate to the field. Planning, leading, and policy management will also be included, as will missions, theories and laws applicable to the sporting process.
Class time: 60% lecture, 5% cctv, 20% discussion, 15% Group work/ outside projects
Work load: 50 pages of reading per week, 15 pages of writing per semester, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 30% final exam, 15% written reports/ papers, 20% special projects, 10% in-class presentations, 5% class participation

SpSt 3501 Sport in a Diverse Society
(Sec 001); A-F only; prereq—SpSt major only; 3 cr
Instructor: Buysse, Jo Ann
This course will examine the pervasive and significant relationship between sport and contemporary social institutions (politics, religion, economics, education, and the mass media). Particular emphasis will be given to groups of individuals who have historically been marginalized or excluded from sport participation. Variables such as race, sex, social class, sexual orientation and physical (dis)abilities will be emphasized.
Class time: 30% lecture, 10% cctv, 60% discussion
Work load: 60 pages of reading per week, 20 pages of writing per semester, 1 exams, 2 papers, Research article reviews
Grade: 25% mid-semester exam(s), 25% final exam, 50% written reports/ papers
Exam format: Essay

SpSt 3631 Sport Promotion and Programming
(Sec 001); A-F only; prereq—SpSt major only; 2 cr
Instructor: STAFF
Programming in sport—an overview; marketing of sports including but not limited to the five P's—price, promotion, place, public relations, product; the uniqueness of sport products and sport marketing; and promotional strategies—advertising, publicity, personal selling, sponsorships, sales promotions, etc. Text: Mulliln, Bernie "Sport Marketing." Teaching methods: lectures and interactive learning techniques utilizing assessment through tests and papers. Target audience: undergraduate sport studies majors
Class time: 50% lecture, 20% discussion, 15% guest speakers; 15% group projects
Work load: 30 pages of reading per week, 12 pages of writing per semester, 2 exams, 3 papers
Grade: 20% mid-semester exam(s), 30% final exam, 30% written reports/papers, 10% special projects, 10% in-class presentations
Exam format: varied

SpSt 3881W Senior Seminar in Sport Studies
(Sec 001); A-F only; prereq—SpSt major only, completion of major coursework; meets CLE req of Writing Intensive; 3 cr
Instructor: Buysse, Jo Ann
This course is the final academic preparation course prior to the practicum experience. Topics will focus on student interests in sport careers and career preparation. A final research project will be required. Students will be required to do an oral presentation as well as a final paper. This is a writing intensive course.
Class time: 20% discussion, 80% Guest Speakers and Research.
Work load: 20 pages of reading per week, 20 pages of writing per semester, 1 papers, SR Thesis Project.
Grade: 50% written reports/papers, 20% special projects, 20% in-class presentations, 10% lab work
Exam format: N/A

SpSt 3996 Practicum: The Sport Experience
(Sec 001); max crs 10; 10 repeats allowed; S-N only; prereq—3881; 1-10 cr
Instructor: Esten Jr, Phillip L
Eligible students for this class are undergraduate sport studies majors (Kin) who have completed their senior seminar (SpSt 3881). This internship or practicum experience in the field of sports will provide students the opportunity to undertake academically structured learning experiences in work and service settings. Each eligible student needs approval from the Director of Sport Studies and the instructor of SpSt 3996.
Class time: 100% Internships
Work load: 440 hours of intern experience
Grade: 20% written reports/papers, 80% class participation

Statistics
313 Ford Hall 612-625-8046

Stat 3011 Introduction to Statistical Analysis
(Sec 001, 005, 009, 013, 017); Credit will not be granted if credit has been received for: STAT 5021; prereq—Two yrs high school math; meets CLE req of Mathematical Thinking Core; 4 cr
Instructor: STAFF
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.
Class time: 90% lecture, 10% laboratory
Work load: 50 pages of reading per week, Weekly quizzes.
Grade: 30% final exam, 70% quizzes
Exam format: problem solving
Course URL: www.stat.umn.edu/~gary/classes/3011

Stat 3021 Introduction to Probability and Statistics
(Sec 002, 003); prereq—Math 1272; 3 cr
Instructor: Dickey, James Mills
This course will start with an introduction to probability, including meanings of probability, axioms of probability, symmetry 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, Lecture section will meet 3 days/week. Quizzes are bi-weekly. The course will emphasize basic understanding of concepts and methods, rather than learning stylized problems, procedures or calculations. The subject mater in the textbook is studied at the approximate rate of one or two weeks per chapter. Supplementary topics will be introduced in lecture and will also form an important part of the course, including appearance in quizzes and examinations. Text: "Probability and Statistics for Engineering and the Sciences", 5th ed. Devore.
Class time: 75% lecture, 25% discussion
Work load: 20 pages of reading per week, 1 exams, 7 bi-weekly quizzzes
Grade: 50% final exam, 50% quizzes
Exam format: Questions about concepts and simple problems

Stat 3022 Data Analysis
(Sec 001); prereq—3011 or 3021; 4 cr
Instructor: Qiu, Peihua
Further topics in regression and ANOVA; non-parametric methods; model selection and verification; writing statistical reports; use of statistical software; additional selected topics.
Class time: 100% lecture
Work load: 40 pages of reading per week, 50 pages of writing per semester, 3 exams
Grade: 40% mid-semester exam(s), 40% final exam, 20% problem solving
Exam format: problems
Course URL: www.stat.umn.edu/~qui

Studies in Cinema and Media Culture
350 Folwell Hall 612-624-8099

SCMC 1201 Introduction to Cinema and Media Culture
(Sec 001); Credit will not be granted if credit has been received for: CSCL 1201, CSCL 1201, CSCL 1201, CSCL 1201W; prereq—credit will not be granted if credit received for: CSCL 1201; meets CLE req of Other Humanities Core; 4 cr
Instructor: Ganguly, Keya
In this course we will explore the importance of visual media, focusing on the ways that film, television, and advertising represent particular "ways of seeing." At stake is an understanding of the historical and cultural bases (and biases) of vision and visuality; that is, an attempt to think about how and why modes of visual perception and reception are constructed, rather than natural or given. Students will learn to use the approaches of film and media criticism, semiotics, and visual anthropology in order to examine the priority of the visual in modern consciousness, perhaps especially in the West. The emphasis of class discussions will be on reading, understanding, and developing a critical engagement with questions of cinema and media culture; the written assignments will be geared towards learning the vocabulary of film/media culture and reading visual texts.

SCMC 3001 History of Cinema and Media Culture
(Sec 001); 3 cr
Instructor: Kotz, Elizabeth W
This course traces the historical emergence and development of film, television, radio, computers and other media onto the international scene. It examines the relationship between western modernity and the discourse networks of mass culture, and provides a history of the field of cinema studies.
Class time: 30% lecture, 30% cctv, 30% discussion, 10% laboratory
Work load: 25-30 pages of reading per week, 15-20 pages of writing per semester, 2 exams, 3 papers, Other exercises and assignments as needed
Grade: 20% final exam, 20% written reports/papers, 20% special projects, 10% quizzes, 10% in-class presentations, 10% class participation, 10% lab work
Exam format: varies

SCMC 3177 On Television
(Sec 001); Credit will not be granted if credit has been received for: CSCL 3177; 4 cr
Instructor: Wasson, Haidee S
Television is a complex cultural form, marking a point at which subjectivity, technology, power, and aesthetics are persistently reconfigured. Its influence is pervasive. TV has fundamentally altered the relations between consumerism, media, and politics; reorganized domestic and public space; blurred lines dividing "high" and 'low' culture; nurtured ideas of global villages and simultaneity; and supplied resonant metaphors for understanding the experience of contemporary life: boob tube, soundbite, talking head, prime time and 'channel surfing'. This course assumes that television

has neither a unitary significance nor a simple effect. We will critically assess the ways in which television challenges us to rethink fundamental concepts: leisure, time, space, text, image, sound, subjectivity and aesthetics. We will explore key debates in the history, theory and criticism of television, concentrating on critical and creative "readings" of televisionÆs past and present forms. This will also include consideration of how television borrows from and influences film, music, and digital media. Specific topics might include: music television, reality tv, television news, video art, guerilla television, Blockbuster video, and tv webpages.

Swedish

Swed 1001 Beginning Swedish
(Sec 001, 002); Credit will not be granted if credit has been received for: SWED 4001; 5 cr
Instructor: STAFF
This is the first course in the first-year language instruction sequence (1001-2), designed to develop a basic communicative proficiency in Swedish. Students will practice the four language skills (speaking, writing, reading, and listening) and learn to handle simple, everyday transactions. Class sessions will emphasize interactive communicative activities in pairs and small groups, with a focus on improving listening and speaking skills. Additional class time will be spent on reading, writing, and grammar. Students are expected to practice these skills outside of class as well. Learning about life and culture in Sweden is an integral part of the course. See the description for Swed 4001 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Class time: 10% lecture, 70% discussion, 20% laboratory
Grade: 100% , 50% reading/writing, 50% oral/aural
Exam format: structured exercises in all 4 modalities and grammar, pronunciation, vocabulary and culture

Swed 1003 Intermediate Swedish
(Sec 001, 002); Credit will not be granted if credit has been received for: SWED 4003; prereq—1002; 5 cr
Instructor: STAFF
This course continues the presentation of language skills—speaking, writing, listening and reading begun in Swedish 1001-2 (or quarter system courses 1101-2-3). Students will review, examine and develop these skills through a content-based curriculum. Students will be introduced to a variety of Swedish texts—stories, songs, newspaper articles, video and Internet resources. The review of basic points of Swedish grammar with an emphasis on sentence structure and word order will enable students to improve their writing skills in connection with process-oriented writing assignments. Vocabulary building will be supported by a rich array of texts that the students will be reading during their second year. Speaking and listening will be practiced in role play activities involving representive social situations. The interactive will familiarize students with the different levels of formality and intimacy used in conversational settings, and the codes and mythologies unique to Swedish culture. See the description for Swed 4003 for an option for qualified students to register for this course for 2 credits (and lower tuition) instead of 4 credits.
Class time: 10% lecture, 70% discussion, 20% laboratory
Grade: 100% , 50% reading/writing, 50% oral/aural
Exam format: written essays, listening and reading protocols, structural exercises, oral interviews

Swed 3011 Advanced Swedish
(Sec 001); prereq—Passing score on the GPT; 4 cr
Instructor: STAFF
This course is communicatively oriented and designed to refine students' oral and written expression and aid in the development of critical analysis skills. Texts for the course guide students through an introduction to text analysis. Grammar and writing assignments help students refine their Swedish skills. Computer exercises, video clips, and/or feature films may complement the other instructional materials. Active class participation, essay writing and revision, individual and group oral presentations and projects, and informal writing assignments of varying lengths are part of this class.
Class time: varies with instructor
Work load: Expect at least 2 hours preparation time per class session.
Grade: 10% final exam, 30% written reports/papers, 20% quizzes, 10% in-class presentations, 10% class participation, 20% , note: grading percentatages vary with instructor
Exam format: written, oral

Swed 4001 Beginning Swedish
(Sec 001, 002); Credit will not be granted if credit has been received for: SWED 1001, SWED 1001; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: STAFF
See the course description for Swed 1001. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student or are not seeking a CLA degree, you may register for Swed 1001 under the number Swed 4001 for 2 credits. Contact the department office, (612) 625-2080, for permission.

Swed 4003 Intermediate Swedish
(Sec 001, 002); Credit will not be granted if credit has been received for: SWED 1003, SWED 1003; prereq—passing score on GPT in another language or grad; 2 cr
Instructor: STAFF
See the course description for Swed 1003. This 4xxx-level course designator is a special option for qualified students to take the 1xxx-level course for reduced credits. If you have already passed the Graduation Proficiency Test (GPT) in another language or are a graduate student of are not seeking a CLA degree, you may register for Swed 1003 under the number Swed 4003 for 2 credits. Contact the department office, (612) 625-2080, for permission.

Teaching English as a Second Language

TESL 5401 Language Analysis for Teachers of English as a Second Language
(Sec 001); prereq—Ling 5001; 4 cr
Instructor: Lazaraton, Anne Louise
This is the first in a two-semester class sequence which provides students with a thorough description of the grammar and phonology of the English language, so that students will be better prepared to teach that language to others. This first semester course begins with a unit on English phonetics and phonology, and the related topic of spelling. After a brief look at the lexicon of English, subsequent units examine the simple sentence in English, providing an accurate description of the rules for basic English word order, subject-verb agreement, tense and aspect, modal auxiliaries, negation, imperatives and question formation. the orientation is in all cases to relate the form of the English language to its function in discourse, and to explore methods for successfully teaching the language to others. Classes are devoted to discussions of related readings, with short student presentations. Students will take several quizzes on the course content, and write a paper describing the way English speakers actually use one of the structures studies. (The second class in the sequence, TESL 5402, will examine the English article system, passive voice, indirect objects, prepositions and phrasal verbs, conditional sentences, relative clauses, complementation and reported speech.)
Class time: 25% lecture, 75% discussion
Work load: 30 pages of reading per week, 25 pages of writing per semester, 4 exams, 1 papers
Grade: 40% written reports/papers, 40% quizzes, 10% in-class presentations, 10% class participation
Exam format: Essay, problem solving

TESL 5721 Methods in Teaching English as a Second Language
(Sec 001); prereq—Ling 3001 or 5001 or instr consent; 3 cr
Instructor: Lazaraton, Anne Louise
This course provides a broad introduction to the field of Teaching English as a Second Language, with a special focus on teaching ESL to adults at the college or university level. Through readings, discussions, and assignments, students will: 1) Examine a number of approaches to language teaching, both traditional and innovative; 2) Review current practices in the teaching of the component language skills (listening, speaking, reading, writing) as well as grammar and vocabulary; 3) Examine current approaches to teaching these skills in ESL/EFL texts and classroom materials; 4) Discuss learner needs based on proficiency level as well as linguistic and cultural background; 5) Overview skills for teachers, including lesson planning, materials selection and evaluation, technology use, language assessment and test evaluation, and professional development. Students will be required to complete a number of homework assignments, observe several ESL classes, write a publishable quality ESL materials review, prepare a presentation of some aspect of the TESOL profession, and give service to the Minnesota English Center (MEC).

Class time: 25% lecture, 75% discussion
Work load: 20 pages of reading per week, 20 pages of writing per semester, 0 exams, 3 papers
Grade: 50% written reports/papers, 10% in-class presentations, 10% class participation, 30% problem solving

TESL 5724 Intro to Language Assessment
(Sec 001); A-F only; prereq—Ling 5001 or instr consent; 3 cr
Instructor: Cohen, Andrew D
This course is intended for advanced undergraduates and graduate students who are interested in the principles and practice of constructing language assessment within the context of second language acquisition. The course is designed both for students interested in the assessment of adult ESL (or other language) ability for instructional purposes, and for student researchers interested in constructing language tests as part of their research efforts. While the course has no prerequisites, it assumes some familiarization with the field of second language acquisition. The course objectives are to enable students to:1) identify and select assessment procedures appropriate for various ages, ability levels, skills, and purposes (including proficiency and achievement), 2) write effective test items and tasks for measuring both global ability and ability in specific skill areas, and 3) conduct basic analysis of test results in order to evaluate the assessment instrument. The course requirements: reading portions from the textbooks, responding to questions in the textbooks and completing selected activities (such as the construction of test items), learning how to run a basic test-analysis program for microcomputer, developing, piloting, administering, evaluating, and revising an assessment instrument, and writing a paper describing the assessment instrument.
Class time: 30% lecture, 20% cctv, 40% discussion, 10% test construction and critique
Work load: 50 pages of reading per week, 25 pages of writing per semester, 1 papers, 1 construction of a pilot test and revised version after piloting. 6 or so (multiple) test construct
Grade: 10% class participation, 90% , 45% final assessment project—the test and write up, 20% grasp of reading material, 25% language te
Exam format: No exam
Course URL: webct.umn.edu/script/TESL5724

TESL 5993 Directed Studies
(Sec 001); max crs 9; 9 repeats allowed; prereq—instr consent, dept consent, college consent; 1-4 cr
Instructor: STAFF
In order to obtain Directed Studies credit through TESL 5993, students must fill out a Student/Faculty Contract for Directed Study. On the form, the student indicates the title of the project, the number of desired semester credits(1-4), the learning objectives associated with it, methods and resources to be used (books, articles, etc.), and also indicate how the results of the project will be evaluated. Then a Faculty Member for ESL must approve it and sign as the supervisor for the project. Forms are available in the department office.

Theatre Arts
580 Rarig Center 612-625-6699

Th 1101W Introduction to the Theatre
(Sec 001); meets CLE req of International Perspect Theme; meets CLE req of Literature Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Kuftinec, Sonja
Introduces students to the appreciation of theater as both dramatic text and live event. Through reading, viewing, analysis, discussion and active participation, students will gain the tools to critically regard and read theater within historical and contemporary contexts. This course has three main objectives: 1) to introduce students to the art and craft of live theater and performance; 2) to stimulate in students an appreciation of such forms; 3) to move the student from appreciation to assessment, by giving them practice in critically analyzing play text and performance process. Introduction to Theater is open to any University student and is required of undergraduate theater majors. Texts include: "The Creative Spirit: An Introduction to Theater" and a text from a fall season production. Students are expected to attend weekly lectures, to keep up with weekly readings and assignments, and to participate fully in discussion and activities section with TAs. Students will attend two theater productions at the University, write a dramatic analysis of the text, write a performance review, participate in a group scene project, and write a culminating project report based on their group work.
Class time: 50% lecture, 20% discussion, 30% laboratory
Work load: 75 pages of reading per week, 10-12 pages of writing per semester, 1 exams, 2 papers, project with report
Grade: 20% mid-semester exam(s), 40% written reports/papers, 15% special projects, 13% class participation, 12% lab work
Exam format: multiple choice and short essay

Th 1301 Acting/Non-Majors
(Sec 001-004); prereq—1101 or concurrent enrollment 1101; 3 cr
Instructor: STAFF
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. Required text: ACTING ONE by Robert Cohen.
Class time: 10% discussion, 90% laboratory
Grade: 30% written reports/papers, 30% in-class presentations, 40% , 20% Attendance & Participation, 20 % Attitude & Growth.

Th 1321 Fundamentals of Performance
(Sec 001-005); A-F only; prereq—1101 or concurrent registration in 1101; 3 cr
Instructor: STAFF
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 "phrases" by sequencing ideas and choices to tell stories; and the significance of circumstances for choice making. The course has three overarching objectives: training the artistic will, training 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, both courses must be completed to receive credit. Required reading: The Articulate Body by Anne Dennis Body Learning by Michael J. Freeing the Natural Voice by Kristin Linklater Towards a Poor Theatre by Jerzy Grotowski Acting Power by Robert Cohen
Class time: 10% discussion, 90% laboratory
Grade: 25% written reports/papers, 25% in-class presentations, 25% , Attendance & Participation; 25% Attitude & Growth.

Th 1361 Singing for Musical Theatre
(Sec 001); A-F only; 3 cr
Instructors: Nash, Elizabeth H; Sealy, Zoe W
Singing, interpretation, and audition techniques for Musical Theatre, culminating in solo and ensemble presentations at a final class performance. Since each student is instructed individually, all vocal levels, from beginning to advanced, are welcome in this class.
Class time: 100% vocal performance
Work load: 1 exams, 1 papers
Grade: 10% final exam, 10% written reports/papers, 80% in-class presentations
Exam format: vocal performance

Th 1911W Freshman Seminar: Theatre, Entertainment With Attitude
(Sec 001); A-F only; prereq—Fr or 24 cr; meets CLE req of Writing Intensive; 3 cr
Instructor: Bernstein, David Joseph
Is live performance obsolete? Are art and entertainment the same, as in "A & E"? In this seminar for non-theater majors, will address these questions by experiencing the power, immediacy, and social relevance of live theater. Our main goal is to use the rich cultural resources of the Twin Cities, supplemented by in-class discussions, talks with theater and dance professionals, and textual readings to develop a critical language—and a critical eye—with which to look at performance. We will attend performances at a variety of local theaters and use the experience of seeing them "up close and personal" to focus on a number of questions. What does it mean for a theater to be mission-driven rather than market-driven? How does theater reflect social and political issues—and the cultural context in which it was written, created and/or performed? How, and how well, do acting, scenery, costumes, lighting, and sound combine as a total effect to make a text or concept come alive on stage? And yes, we will also ask each production whether or not it engaged and entertained us as audience members. Here is an excellent opportunity to think about live performance for what it says about culture and values, not only as something to pass the time on an otherwise boring Thursday night; in other words, to experience theater as entertainment with attitude.
Class time: 10% lecture, 40% discussion, 50% attending theatre productions
Work load: 40 pages of reading per week, 15-20 pages of writing per semester, 0 exams, Attendance at plays is required (we provide tickets and transportation); writing 7 or 8 short papers
Grade: 55% written reports/papers, 30% special projects, 15% class participation

Exam format: essay
Course URL: webct3.umn.edu/public/TH1911W_f01/index.html

Th 3100 Theatre Practicum
(Sec 001-004); max crs 4; 4 repeats allowed; S-N only; prereq—1101; only two enrollments as actor may count toward a major; 1 cr
Instructor: Gwinup, Martin Bruce
Theatre Practicum is a course that allows the student to receive credit for work within our Main Season production laboratory. This can be as a cast member within a production, as a backstage running crew or board operator, within the shops during the construction of a production, in the box office in promotions, audience development, or House management. The student is expected to commit to 48-54 hours over the term of registration and will be working alongside faculty and/or staff in the development and realization of the production. This is the hands-on lab which is connected to our academic training. Realize that the course is only offered S/N and is also open to any student on campus.
Class time: 95% laboratory, 5% organizational meetings
Work load: 48 to 54 hours over the term in production area
Grade: 100% lab work

Th 3171 History of the Theatre: Ancient Greece Through Neo-Classicism
(Sec 001); prereq—Th major or instr consent; 3 cr
Instructor: STAFF
History of Western theatre and drama; theatrical practices, staging conventions and dramatic structure of plays; romanticism to the present.

Th 3314 Text and the Actor
(Sec 001, 002); A-F only; prereq—1101, 1321; 3 cr
Instructor: Nash, Elizabeth H
Instruction in Standard Stage Speech, IPA transcription, and textual analysis to perform heightened language texts: i.e., selections from the Anglo-Saxon poem Beowulf and Geoffrey Chaucer's Canterbury Tales, as well as from the plays of Shakespeare, Wilde, and Shaw. Videos will be viewed and discussed.
Class time: 10% lecture, 40% discussion, 50% laboratory
Work load: 10 varied short written assignments.
Grade: 50% in-class presentations, 50% , written assignments
Exam format: Presentations and written assignments

Th 3321 Stanislavski and Techniques for Characterization
(Sec 001, 002); prereq—1322, [3314 or concurrent enrollment 3314], audition; 3 cr
Instructor: STAFF
This class focuses on creating characters, researching behavior, and expanding expressive range in scenes and monologues from contemporary plays. Theatre as a collaborative art form and the essentialness of listening, interaction, and responsiveness to partners is emphasized. Most importantly, students are taught how to begin to develop and articulate a personal acting process. This class is open to qualified students who have both completed Th 1321, Beginning Acting/Fundamentals of Performance, and who have been auditioned and selected by the acting faculty. Required reading: An Actor Prepares by Constantin Stanislavsky, True or False by David Mamet, and handouts.
Class time: 10% discussion, 90% laboratory
Grade: 20% written reports/papers, 50% in-class presentations, 30% , 20% Attendance & participation; 10% growth

Th 3331 Physical Approaches to Acting
(Sec 001); prereq—1322, [3314 or concurrent enrollment 3314]; 3 cr
Instructor: STAFF
This course explores a dynamic, physical approach to acting to expand the actor's expressive and creative abilities. Training centers on strengthening the vital connections between physical and vocal expression, and uniting instinct with intellectual analysis. Techniques and theories as advanced by Delsarte, Meyerhold, Grotowski, Kantor, Suzuki, Barba, etc., and structured improvisation will be incorporated in solo and collaborative performance projects, giving the student the opportunity to create original movement-based theatre that places the actor at the heart of the creative process.

Th 3355 Introduction to Puppetry
(Sec 001); prereq—1322, [3513 or concurrent enrollment 3513]; 3 cr
Instructor: STAFF
This course will introduce the fundamentals of puppetry and object theatre through puppetry forms both traditional and contemporary. Object Theatre, Toy Theatre, hand puppets, shadow puppets, and Bunraku-style puppetry will be the primary focus, introduced through in-class manipulation, screenings of videos and slides, and readings. Students will build and create a series of short works for in-class performance. This course includes a shop lab component. Students must have completed TH 1322 and either completed TH 3513 or be taking it concurrently. Qualified students must interview with instructor Michael Sommers and be given a magic number for enrollment.

Th 3513 Design and Technical Production I
(Sec 001); prereq—1101; 4 cr
Instructors: Gwinup, Martin Bruce; Brockman, C Lance
This course is an introduction to both Properties/Scenic design and technology. The student is led through the process of creating a design (research, sketching, drafting, models, and rendering) and then takes that design and prepares it to submit to a shop (drafting, analysis, budgeting). There are 6 projects and 3 homework assignments. The main focus for this course is to help the student learn and understand the process of design and realizing that design onstage. This is a required course for all Theatre majors persuing a BA, BFA or Theatre Minor. There is also a laboratory component which requires the student to develop skills in constructing properties, scenic, costume, and or lighting elements. The current text is "Theatrical Design and Production" by Gillette.
Class time: 75% lecture, 25% laboratory
Work load: 10-20 pages of reading per week, 10 pages of writing per semester, 2 exams, 6 projects and 3 homework assignments
Grade: 15% mid-semester exam(s), 15% final exam, 45% special projects, 25% lab work, Homework is extra credit
Exam format: Multiple choice, true/false, matching

Th 4177W Survey of Dramatic Literature I: Strategic Interpretation
(Sec 001); prereq—[[3171, 3172], [jr or sr]] or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
This is the first in a two-course sequence that provides theatre artist/scholars an opportunity to deepen their engagement with the art of live theatre. This course combines a survey of dramatic literature with an introduction to 20th century critical perspectives, and invites students to translate these perspectives into staging practices. Th 4177W fulfills requirements for a writing intensive course. While open to all University students, priority is given to theatre majors and graduate students. Students are evaluated on attendance, participation, short-essay exams, in-class performances, and written assignments.
Class time: 30% lecture, 5% cctv, 45% discussion, 20% Student presentations.
Work load: 25—50 pages of reading per week, 15 pages of writing per semester, 3 exams, 3 papers
Grade: 20% written reports/papers, 25% special projects, 20% quizzes, 20% in-class presentations, 15% class participation
Exam format: Combination multiple choice and short essay.
Course URL: classweb.cla.umn.edu

Th 4321 Career Preparation for the Actor
(Sec 001); prereq—3322; 3 cr
Instructor: STAFF
Information and techniques necessary for the professional acting career.

Th 4322 Acting for the Camera
(Sec 001, 002); prereq—3321; 3 cr
Instructor: STAFF
Students prepare and perform scenes and monologues with a focus on the function and effect of the camera and production process. The course begins by comparing camera acting to live stage acting and then continues to build a camera acting technique. open only to students who have successfully completed 3321, Intermediate Acting, and who have been auditioned and selected by the acting faculty. Required reading: The Camera Smart Actor, Richard Brestoff (required); Acting for the Camera, Tony Barr (recommended).
Class time: 100% laboratory
Grade: 10% written reports/papers, 20% class participation, 40% lab work, 30% , Tests

Th 4553 Advanced Video Technology
(Sec 001); prereq—[4550, 4557] or instr consent; 3 cr
Instructor: Gwinup, Martin Bruce
This course builds on the fundamentals taught in Th 4550—Basic Video Production. The course will cover both principles and practical application of camera operation and composition, lighting methods and styles specifically for video, audio technology as it pertains to video, and live effects. The course will involve both classroom discussion, lecture, demonstration—and hands-on lab. The students will be working on group video projects which will utilize skills and principles discussed in class. The textbook will be the "Television Production Handbook" by Zettl. The class will not meet every Saturday lab, but the student should be available every

Saturday until the schedule has been shared, which will be the first day of class.
Class time: 10% lecture, 25% discussion, 50% laboratory, 15% Demonstration
Work load: 10 pages of reading per week, 10-15 pages of writing per semester, 4 exams, 0 papers, At least 3 projects—2 individual and 1 group
Grade: 25% special projects, 15% quizzes, 15% class participation, 45% , Final project
Exam format: Multiple choice, true/false, short answer

Th 4901 Senior Seminar
(Sec 001); Same as: DNCE 4901; S-N only; prereq—credit will not be granted if credit received for: Dnce 4901; Sr, [Th or Dnce major]; offered fall semester only; 2 cr
Instructors: Gwinup, Martin Bruce; Wolska, Aleksandra; Maddux, Marge
Dance and Theatre senior seminar is the course which students register for their Senior Project. The student will submit a proposal for their project which will then be evaluated by the course panel and be approved, disapproved, or the student will be asked for a resubmittal with clarification. Once approved the student will be assigned a faculty advisor who will advise them on their project as well as evaluate the final product. These projects can be individual or group projects. The projects should be both a culmination of the students career here, as well as a look forward into their particular carrer goals and aspirations. These projects are not funded and there are minimal resources available for performances or presentations. Since both Theatre and Dance are colloborative in nature, we urge, but do not demand, that projects be group projects. Although the course is only offered in the fall, once registered, the student has the full academic year to complete their project. The course is offered S/N only.
Class time: 5% lecture, 95% Developing and carrying out the project
Work load: Reading and writing depends upon the project
Grade: 100% , Senior project

Th 4905H Honors: Tutorial Seminar in Theatre Arts
(Sec 001); max crs 4; prereq—=4905; honors, theatre arts, dept consent; limit [2 cr for [cum laude or magna cum laude], 4 cr for summa cum laude]; meets HON req of Honors; 2-4 cr
Instructor: STAFF
Independent reading and research in selected fields in preparing honors thesis or creative project. Detailed requirements available from the department's Director of Honors.
Work load: 20-25 pages of writing per semester, 1 papers
Grade: 10% written reports/papers

Th 5100 Theatre Practicum
(Sec 001, 002); max crs 20; 10 repeats allowed; prereq—instr consent, dept consent; 4 cr of 3100 for undergrads; 1-4 cr
Instructor: STAFF
Individual creative projects in production of approved plays as an actor, director, dramaturg or playright.

Th 5500 Theatre Design Practicum
(Sec 001, 002); max crs 20; 10 repeats allowed; prereq—3515, instr consent, dept consent; 1-3 cr
Instructor: STAFF
Individual projects in production of approved plays as a designer for scenery/properties, costumes, lighting or sound.
Class time: 100% laboratory
Work load: projects for design
Grade: 100% , final production and prep work

Th 5510 Drawing, Rendering, and Painting for the Theatre Designer I
(Sec 001); prereq—3515 or grad or instr consent; 3 cr
Instructors: Brockman, C Lance; Lefebvre, Matthew James
Development of drawing, rendering, and painting skills necessary for the presentation of theatre scene and costume designs. Course sequence includes the practical study of materials, layout, and techniques used in scene painting styles and texturing techniques. 5510 focuses on basic drawing/graphic skills (fall semester); 5560 focuses on rendering and scene painting (spring semester).
Class time: 100% laboratory
Work load: 2-3 drawing/rendering projects each week
Grade: 100% class participation

Th 5520 Scene Design
(Sec 001); max crs 9; 3 repeats allowed; prereq—3515 or grad or instr consent; 3 cr
Instructor: Brockman, C Lance
Develpment of a basic approach to conceiving and communicating design ideas in both two-dimensional sketches and three-dimensional models. Student will also create the drafting necessary to realize their ideas for the theatre and allied venues. Teaching method follows a studio model where the students from various levels challenge each other to improve their scenic design work. Most classes (60%) are open laboratory with one on one with the instructor. The other 40% are in critique and presentation.
Class time: 100% laboratory
Work load: 4 hours of outside work/week
Grade: 100% special projects
Exam format: Final presentation of scene design.

Th 5545 Stage Lighting Technology
(Sec 001); prereq—3515 or grad or instr consent; 3 cr
Instructor: Montgomery, Jean A
The stage lighting technician's skills and crafts: study of equipment, techniques, control operation, wiring, and maintenece from a practical standpoint in the area of lighting technology. The course will cover basic concepts such as electrical safety, circuits, wiring soldering, basic electronics; a study of the various types of dimmers and control systems, special effects, and the technical process from set up of a lighting shop, through running and strike of a production. This course is intended to familiarize the student with the processes and equipment necessary to achieve the desired artistic effect in the production. Laboratory arranged. Target: Advanced undergrad, grad students, majors.
Class time: 60% lecture, 20% discussion, 20% laboratory
Work load: 10—15 pages of writing per semester, 1 exams, 1 papers, oral report

Th 5559 Sound Design for Performance
(Sec 001); prereq—5555 or instr consent; 3 cr
Instructor: Gwinup, Martin Bruce
This is a course which explores the creative and poetic components of sound design. Sound design has become a major part of live performance and is also being used in many other venues. This course discusses the design process, collaboration, psycho acoustics, organization, and creativity of sound design. Projects include realistic, mood/emotion, and environmental representations, as well as some design projects. Sound design is an area where the designer must have a strong understanding of the audio equipment, as well as how sound functions as an entity. Because of this, Th 5555, Audio Technology is a prerequisite to this course. If the student feels they already have this knowledge, then they can contact the instructor to demonstrate this and the prereq may be waived. The final project allows the student to work in a theatre with the system to create events for their design and final presentation.
Class time: 40% lecture, 50% discussion, 10% laboratory
Work load: 150-300 pages of reading per week, 10-15 pages of writing per semester
Grade: 100% special projects

Th 5580 Costume Technology
(Sec 001); max crs 15; 15 repeats allowed; prereq—3515 or grad or instr consent; 3 cr
Instructor: Knourek, Pamela L
Th 5580 Costume Technology "Flat patterning—Sketch interpretation" This is an upper division class. Instructor approval is needed Students will work on interpreting a Costume design by flat patterning. The class will be taught as a lab, and grading will depend on lab work and course projects completed.

Th 5590 Theatre Technology Practicum
(Sec 001, 002); max crs 15; 15 repeats allowed; prereq—3515, instr consent, dept consent; 4 cr max for undergrads; 1-3 cr
Instructor: STAFF
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 5716 Stage Management for the Theatre
(Sec 001); prereq—[1101, 1321, soph] or grad; 4 cr
Instructor: Montgomery, Jean A
The course deals with both the theoretical and practical aspects of stage managing for the theatre and other forms of performance. Discussion topics include the role the stage manager plays within the production team and how to deal with the variety of situations and personnel encountered during the various phases of production. Students will choose one of two tracks in order to fulfill course requirements: (1) practical: you would

participate as part of the stage management team on a production during this year's University Theatre season; or (2) theoretical: you would observe and create "paper" projects based on a theorized production. It it is your desire to pursue the practical track you must gain the approval of the director in order to work with that production. Your coursework remains active until you complete the production(should that occur in spring semester). Textbook: Stage Management by Lawrence Stern. Prerequisites: an interest in management techniques, a love of long hours, and at least a sophomore in standings.
Class time: 50% lecture, 50% discussion
Work load: Practical participation in lab
Grade: 100% special projects

Th 5760 Advanced Stage Management
(Sec 001); max crs 3; prereq—5716 or concurrent enrollment 5716, instr consent; [4 cr max for undergrads]; 2-3 cr
Instructor: Montgomery, Jean A
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.
Class time: 100% Practical lab
Work load: Practical lab
Grade: 100% special projects

Th 5993 Directed Study
(Sec 001, 002); max crs 20; 20 repeats allowed; prereq—6 Th cr, instr consent, dept consent, college consent; 1-5 cr
Instructor: STAFF
Guided individual reading or study.

University College
150 Westbrook Hall, 612-624-4000

UC 1000 Exploring Educational Options
(Sec 001); max crs 20; 20 repeats allowed; S-N only; prereq—dept consent, instr consent; 1 cr
Instructor: Redoutey, Karolyn M
Individualized degree programs provide options for personalizing your education to achieve entry into a career, a mid-career change, or a venue for personal growth. This course helps clarify expectations, resources, and challenges associated with transition into/back into college. You will assess your interests and learning style as they relate to college majors. The structure of individualized degrees at the UM and applying into them will be discussed. Written assignments are designed to encourage reflection on the topics presented. The class is intended to be highly interactive. Individual participation is important.

UC 4525 Garbage and the Human Environment
(Sec 001); A-F only; meets CLE req of Environment Theme; 3 cr
Instructor: Singh, Ashok K
In this course the term "garbage" will be used in a broad sense to include waste products generated by household, industrial and agricultural activities that has improved quality of living for the human race, but has polluted the environment. Atmospheric, water and soil pollution may bring about changes resulting in impoverishment of biological systems on Earth. The incidence of many diseases, such as cancer and infections, have risen due to the polluted environment. These changes, if not reversed, may threaten all life forms on Earth. Therefore, it is important to understand the consequences of human activity and possible remedies to reverse the damage. This course will present a simple, but comprehensive account of the following issues: (1) the environment's contamination with waste products generated by the human activities, (2) health effects of the contaminated envrionment, (3) the corrective measures that can be taken to clean up the environment and (4) governmental and non-governmental regualtions regarding pollution. Each lecture will include oral presentation, video and open discussion on a particular topic. This course is suitable for undergraduate students and the interested general public.
Class time: 70% lecture, 20% cctv, 10% discussion
Work load: 20 pages of reading per week, 30 pages of writing per semester, 2 exams, 1 papers
Grade: 30% mid-semester exam(s), 40% final exam, 20% written reports/papers, 10% quizzes
Exam format: 40% multiple choice; 60% short essays

Urban Studies
348 Social Sciences Building, 612-626-1626

UrbS 1001W Introduction to Urban Studies: The Complexity of Metropolitan Life
(Sec 001); Same as: URBS 3001W; A-F only; prereq—=3001; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Martin, Judith A **!!Morse Alumni Award!!**
This course is an overall introduction to the field of Urban Studies. It draws from a number of different disciplines which contribute to the study of cities, and tries to promote an understanding of the complexity of urban environments. The course ranges from historical considerations of cities to contemporary problem areas, and promotes active learning on the part of students.

UrbS 3001W Introduction to Urban Studies: The Complexity of Metropolitan Life
(Sec 001); Same as: URBS 1001W; A-F only; prereq—=1001; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Martin, Judith A **!!Morse Alumni Award!!**
This course is an overall introduction to the field of Urban Studies. It draws from a number of different disciplines which contribute to the study of cities, and tries to promote an understanding of the complexity of urban environments. The course ranges from historical considerations of cities to contemporary problem areas, and promotes active learning on the part of students.

UrbS 3301W American Cities As Settings for Cultural Diversity
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Noon, David H
Throughout much of the 20th centruy, the traffic of cultures in U.S. cities has been held up simultaneously as a reservoir of political strength as well as a harbinger of social chaos. Whereas "cultural pluralism" has signified to some the most valued characteristics of a democratic society—the communion of differences that preserves individuality and necessitates compromise between groups—it has also been regarded by others with varying degrees of suspicion, as if too much cultural diversity presents a grave threat to the political, moral, and even physical health of the nation. Consequently, we might argue that "cultural pluralism" has been an acceptable characteristic of American cities as long as strict boundaries, fortified borders, and a predictable order of things remains keenly within view. The story of urban life in the U.S. has been nothing if not the constant struggle for definition within urban space. How might the city be known? Who defines the cultural identity of the city? Which cultural practices are valorized as proper and just? Which are scorned, vilified, annihilated or confined? Whose vision of order prevails? And who receives the orders? These questions and answers will be examined. Mr. Noon is a PhD candidate in American Studies.
Class time: 80% lecture, 10% cctv, 10% discussion
Work load: 70 pages of reading per week, 10 pages of writing per semester, 1 exams, 1 papers
Grade: 40% final exam, 30% written reports/papers, 30% quizzes
Exam format: identification, short answer, essay

UrbS 3900 Urban Studies Internship Seminar
(Sec 001); max crs 4; A-F only; prereq—Sr, internship placement, dept consent, instr consent; 2 cr
Instructor: Pentel, Paula R
A weekly seminar which serves to integrate an internship experience with the academic programs of students. 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.

UrbS 3993 Urban Studies Directed Study
(Sec 001); max crs 6; 3 repeats allowed; A-F only; prereq—UrbS majors, instr consent, dept consent; 2-3 cr
Instructor: STAFF
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 Pathobiology

295 Animal Science/Veterinary Medicine 612-624-2700

VPB 2022 General Microbiology
(Sec 001); Same as: MICB 2022; prereq—3 cr biol; 2 cr
Instructor: Bey, Russell F
This course is intended for NON microbiology majors. General microbiology (VPB 2022) is intended for undergraduate students whose programs of study requires an introductory microbiology course as prerequisite for more advanced study or pre-professional students desiring some background knowledge in microbiology. The course uses lecture and some discussion sessions to provide students with an overview of the fundamental principles of microbiology. Some areas covered are bacterial morphology, metabolism, growth and genetics, introduction to recombinant DNA technology, biology of viruses and fungi, control of microorganisms, host-microbe interactions, immunity and the immune system, microorganisms and disease, applied microbiology. A laboratory manual is required for those taking the course with laboratory (VPB 2032).
Class time: 70% lecture, 27% discussion, 3% Review from previous class
Work load: 0-50 pages of reading per week, 3 exams
Grade: 66% mid-semester exam(s), 33% final exam
Exam format: Multiple choice, essay, fill in the blank/essay—depends on class size

VPB 2032 General Microbiology with Laboratory
(Sec 001); Same as: BIOL 2032, MICB 2032; prereq—credit will not be granted if credit received for: 3301 or MicB 2032 or MicB 3301 or VPB 2032; [1002 or 1009], Chem 1022; intended primarily for non-microbiology majors; 4 cr
Instructor: Bey, Russell F
This course is intended for NON microbiology majors. General microbiology (VPB 2032) is intended for undergraduate students whose programs of study requires an introductory microbiology course as prerequisite for more advanced study or pre-professional students desiring some background knowledge in microbiology. The course uses lecture and some discussion sessions to provide students with an overview of the fundamental principles of microbiology. Some areas covered are bacterial morphology, metabolism, growth and genetics, introduction to recombinant DNA technology, biology of viruses and fungi, control of microorganisms, host-microbe interactions, immunity and the immune system, microorganisms and disease, applied microbiology. A laboratory manual is required for those taking the course with laboratory.
Class time: 65% lecture, 10% discussion, 22% laboratory, 3% Review from previous class
Work load: 0-50 pages of reading per week, 3 exams
Grade: 50% mid-semester exam(s), 25% final exam, 25% lab work
Exam format: Multiple choice, essay, fill in the blank/essay—depends on class size

Water Resources Science

173 McNeal Hall 612-624-9282

WRS 5101 Water Resources, Individuals and Institutions
(Sec 001); Same as: GEOG 5444; prereq—Grad student or instr consent; 3 cr
Instructor: Brezonik, Patrick L
The primary objective of this course is to develop an understanding of how water resources are managed by humans. In doing so, we examine natural constraints imposed by spatial and temporal variability in water supply that conflict with spatially and temporally varying demands for water by humans and natural ecosystems. The emphasis of this course is on socio-economic and cultural factors that affect national, state and local water policy and the ways that water resources are used and managed by individuals and society. The course topics include human perspectives on the nature of water, water policy, law, economics of water resources, and trans-national issues. The course is primarily for graduate students and seniors who have had some prior course work in the area of water resources science. Students should also have a basic understanding of word processing and spreadsheet programs, and accessing web-based data bases. The course uses the book, "Water Use, Management, and Planning in the United States", (S.A. Thompson, Academic Press) as a required text, a course packet of about 25 short issue papers primarily from the journal, "Water Resources Update", and the video series, "Cadillac Desert". Classes are a mixture of formal lectures and organized discussions.
Class time: 70% lecture, 30% discussion
Work load: 15 pages of reading per week, 15-20 pages of writing per semester, 1-2 exams, 2-3 papers, Two other homework/computer assignments
Grade: 20% mid-semester exam(s), 25% final exam, 20% written reports/papers, 10% special projects, 25% problem solving
Exam format: Essay

Women's Studies

425 Ford Hall 612-624-6006

WoSt 1001W Introduction to Women's Studies
(Sec 001); max crs 4; meets CLE req of Cultural Diversity Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 3-4 cr
Instructor: STAFF
This course serves as an introductory foundation course in Women's Studies with a focus on multicultural and cross-cultural studies of the social, cultural, and personal conditions of women's lives. Special attention is given to the areas of work, family sexuality, body politics, popular culture, gender, race, and class socialization, reproduction and motherhood, violence against women, social and economic relations, and the gendering of global economies. This course will familiarize students with the basic concepts and vocabulary for women's studies scholarship and introduce students to comparative perspectives on the conditions of women's lives in different communities across the US and globally. This course is a required foundation course for all Women's Studies majors and minors.

WoSt 1902 Freshman Seminar: American Desis: South Asians in America
(Sec 001); A-F only; prereq—Fr or no more than 36 cr; meets CLE req of Cultural Diversity Theme; 3 cr
Instructor: Desai, Jigna
This course will examine the history and experiences of South Asian Americans (Indian, Sri Lankan, Pakistani, Bangladeshi, etc.) in the US. The course will survey early migration, including the settling of Punjabi farmers in California at the turn of the century, to contemporary communities from an interdisciplinary perspective. We will use history, anthropology, literature, and film to analyze several key issues. Topics include theories of race and ethnicity, migration and diaspora, work and labor issues, domestic violence, gender and sexuality, religion, civil rights, and cultural production and consumption. This is a course that focuses on the experiences of being South Asian Americans: where we will discuss the stereotypes of the convenience store owner and the engineer; take apart the perennial question "where are you from"; look at Hollywood films to see how they portray us; examine the backlash and aftermath of September 11th; and interrogate what it means to be brown in a country where race is configured in terms of black and white.
Class time: 20% lecture, 80% discussion
Work load: 100-150 pages of reading per week, 12-18 pages of writing per semester
Grade: 60% written reports/papers, 15% in-class presentations, 25% class participation

WoSt 1904 Freshman Seminar: Women Writing Latin America
(Sec 001); A-F only; meets CLE req of International Perspect Theme; 3 cr
Instructor: Kaminsky, Amy K
This course looks at Latin American society and history through the literature written by twentieth century Latin American women writers. Among the works we will be reading are novels by Angeles Mastretta (Mexico), Gioconda Belli (Nicaragua), Luisa Valenzuela (Argentina), and Isabel Allende (Chile), poetry by Nancy Morej=n (Cuba), short stories by Rosario FerrT (Puerto Rico), and testimonio by Alicia Partnoy (Argentina).
Class time: 10% lecture, 90% discussion
Work load: 200 pages of reading per week, 20 pages of writing per semester, 0 exams, 1 papers, Weekly 1-page reaction papers
Grade: 45% written reports/papers, 30% in-class presentations, 25% class participation
Exam format: No exams

WoSt 3003W Gender and Global Politics
(Sec 001); Credit will not be granted if credit has been received for: WOST 3003V, WOST 3003V, WOST 3053; max crs 4; prereq—credit will not be granted if credit received for: 3003V; meets CLE req of International Perspect Theme; meets CLE req of Social Science Core; meets CLE req of Writing Intensive; 4 cr
Instructor: STAFF
This course critically explores the concepts or cultural difference, representation, oppression and resistance with reference to women's lives

throughout the world. Using cross-cultural, geographical and historical perspectives, the course analyzes the representation, voice, and agency of "third world" women in cultural politics and development work, and pays attention to the ways in which non-western women determine their own cultures of resistance and praxis of empowerment. Although the class focuses on women in what is often referred to as "third world," the major themes of this course will be grounded in the international political economic and environmental contests that underscore the realities of global interconnectedness. This course can be used by Women's Studies majors to satisfy the Women's Studies International Perspective Requirement.

WoSt 3102W Feminist Thought and Theory
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 4 cr
Instructor: Zita, Jacquelyn N !!**CLA Distinguished Teaching Award!!**
What is theory? What is feminist theory? How do different feminist theories help create alternative ways of understanding reality and our experiences in the world? What is gender and how do feminist theories "materialize" gender and our understanding of how gender and other social categories, such as race, class, sexuality, disability, age, and nationality, are constructed within and through each other? Of what use is feminist theory? How can theory change your mind and your life? How does theory inform feminist activism? This course will provide you with a comparative overview of recent genealogies and frameworks for a variety of feminist theories. Our goal is to offer students a broadly based understanding of contemporary feminist theory and a specialized focus on selected issues that inform current theoretical debates in women's studies, feminist political movements, and the politics of everyday life. This course will not only expand your comprehension of different feminist theories and bring you up to contemporary speed, but it will also improve your general theoretical skills: how to read theory, how to use theoretical language, how to write analytically and critically about social and personal issues, and how to dump a bad argument. Students at all levels of Women's Studies coursework are welcome in this course. Special recitation sections are available for Women's Studies majors and honors students.

WoSt 3203W Skin, Sex, and Genes
(Sec 001); prereq—3202; meets CLE req of Cultural Diversity Theme; meets CLE req of Other Humanities Core; meets CLE req of Writing Intensive; 3 cr
Instructor: STAFF
The sciences and the societies in which they are practiced stand in complicated relations to each other. Newspapers regularly proclaim discoveries "proving" the biological basis of some socially important factor, whether mathematical ability or a tendency to criminality. Rarely do they report on the criticism such studies receive within biology. This course reviews some of the ways in which modern biology has been a site of conflict about race, gender, and sexuality. We will focus primarily on issues concerning the concepts of race and gender, controversies about the biological basis of traits like IQ, assertiveness, and sexual orientation, and problems in racially and sexually biased medial research. This course is organized to introduce students to important aspects of scientific thinking—classification, causal reasoning, and statistical or quantitative reasoning—as they are employed in debates concerning the biological dimensions of race and gender. We will also review current controversies concerning the social dimensions of the research we analyze.

WoSt 3390 Topics: Literature, Film, and the Arts: Scandinavian Women Writers
(Sec 001); 3 cr
Instructor: STAFF
Many of Scandinavia's most important writers have engaged in issues of sexual difference and women's emancipation. The aim of this course is to reflect the discussion of women's emancipation through literary texts, and to discuss the intertwinement of progressive thought and literary representation. The concept of emancipation is to be understood in a broad sense: some of these writers demanded political authority and social rights, others were focused on personal and/or sexual freedom. The works that will be brought up are all regarded as landmarks in Scandinavian writing, and will be considered because of their literary qualities as well as their progressive ideas. Although the course is focused on literary texts, it will also give the opportunity to speculate on the nature of emancipatory claims. We will focus on some major women authors, and a couple of male ones, from the 17th century onwards. The course is limited to texts that have been translated into English. Students of Scandinavian will have the possibility to read in the original languages as well. Writers included in the course are: Queen Kristina, Carl Jonas, Love Almqvist, Soren Kierkagaard, Fredrika Bremer, Amalie Skram, Selma Laglerlof, Ellen Key, Edith Sodergran, Karen Blixen, Suzanne Brogger, Kerstin Ekman, Katarina Frostenson.
This course is designed for undergraduate students in Scandinavian Literature, Gender Studies and Comparative Literature.
Class time: 70% lecture, 30% discussion
Work load: 75 pages of reading per week, 1 exams, 2 papers
Grade: 25% mid-semester exam(s), 25% final exam, 25% written reports/papers, 25% class participation
Exam format: Students will be writing 2 short papers, 1 mid-term and 1 at the end of the term. In addition, they

WoSt 3404 International Lesbian and Queer Studies
(Sec 001); prereq—1001 or 1002 or 3001 or instr consent; 3 cr
Instructor: STAFF
In this class, we will read, discuss, and write about a selection of contemporary "texts"—including fiction, film, critical-theoretical materials, and personal narratives—that reflect and interrogate 'experiences' and cultural productions of (primarily) contemporary LGBT/Q people. We will concentrate, specifically, on getting a sense of the cultural, social, and political forces that shape current (self-)representations of LGBT/Q people and communities both locally and globally.

WoSt 3407 Women in Early and Victorian America: 1600-1890
(Sec 001); Same as: HIST 3347; max crs 5; meets CLE req of Cultural Diversity Theme; meets CLE req of Historical Perspective Core; 3 cr
Instructor: Norling, Lisa A
Introduction to the varied experiences of American women 1600-1890. For any student; no background knowledge assumed. Topics include women's involvement in-and the impact on women of-European colonization and the dispossession of native peoples, slavery, revolution and reform, industrialization, westward expansion, and transformations in politics, family life, and sexuality. Course organized primarily as lecture with occasional films, large-group student discussion, in-class exercises. Students may also choose to enhance their experience in the course by registering for an additional small-group discussion section, graded separately, for additional credit.
Class time: 85% lecture, 15% discussion
Work load: 80-100 pages of reading per week, 20 pages of writing per semester, 3 exams, 3 papers
Grade: 20% final exam, 50% written reports/papers, 30% quizzes
Exam format: short identification, essay

WoSt 3409W Asian American Women's Cultural Production
(Sec 001); meets CLE req of Cultural Diversity Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Desai, Jigna
This course explores the diversity of cultures designated as Asian American through understanding women's lives through studying oral histories, performance art, and film in a historical and cultural context. It explores racial, economic, national, and social issues presented in Asian American women's narratives and art, with some emphasis on the unique populations in the Twin Cities. The course centers on understanding "Asian American" as both an identity and a site of knowledge production and resistance. We will examine relevant socioeconomic and historical relations between the US and Asian, including policies and representations of immigration. The course focuses on studying not only how race, class, and gender change historically, but also how Asian American women influence different ways of understanding these concepts in relation to their and others experience.
Class time: 20% lecture, 80% discussion
Work load: 100-150 pages of reading per week, 18-25 pages of writing per semester
Grade: 65% written reports/papers, 10% in-class presentations, 25% class participation

WoSt 4190 Topics: Methods of Inquiry: Women and Holocaust:Gender, Memory, Representation
(Sec 001); prereq—Sr or grad or instr consent; 3 cr
Instructor: Baer, Elizabeth R
Despite the fact that Holocaust Studies is now a mature field, with academic conferences, centers for research, distinguished chairs and dozens of scholarly publications annually, the topic of women and the Holocaust remains, at best, in its infancy. Why have Holocaust scholars been so slow or reluctant to adopt the insights of Women's Studies? We will explore this question, speculating about the reasons, and looking at the material which has emerged on gender and the Holocaust. We will also work specifically on what needs to happen next in this emergent field: bringing a specifically feminist methodology and theoretical framework to understanding the experiences of women in the Holocaust and the Third Reich, their memories of the experiences, and their expressions/representations of those memories.

WoSt 4302H Honors: Women's Personal Narratives
(Sec 001); prereq—3301 or 3302 or 3 cr literary studies or 3 cr AfroAm or instr consent; meets HON req of Honors; 3 cr
Instructor: Reyes, Angelita Dianne !!**Morse Alumni Award!!**
In this course we will explore the ways in which non-Western women and women of color give meaning to their lives through formal autobiographies and informal life story-telling. With a focus on gender, race, ethnicity and class, well discuss and learn about the dynamics of women's personal narratives. Our objectives will include: 1) the relationship between personal narratives and historical contexts 2) explorations of vastly (seemingly) different strategies for telling the life 3) theoretical approaches to formal and informal autobiography 4) additional perspectives for reading and theorizing personal narratives 5) the dynamic and timely role of memory and memoire (This is a topic that I am particularly interested in and welcome students to discuss their own involvement and interest in the unique tensions that occur between history and memory). This is a seminar.
Work load: undergraduates—20 pp research paper; graduate students 25-30 pp research paper
Grade: 50% written reports/papers, 25% in-class presentations, 25% , research paper proposal

WoSt 4504 Women and the Legislative Process
(Sec 001); prereq—Jr or sr or grad student or instr consent; meets CLE req of Citizenship/Publ Ethics Theme; 3 cr
Instructor: Clark, Karen Joy
This course offers a unique introduction to law-making and the workings of state government. Students will learn how Minnesota laws are actually made and explore current and historical influence of women as legislators, constituents, and professional or citizen lobbyists in state or national legislative arenas. Emphasis is on understanding what unique contributions, issues, and challenges women experience in legislative arenas. Opportunities are provided for direct contact with local women legislators, lobbyists and citizen/community organizers in the classroom and at the State Capitol. This course can be used as a prerequisite for the Women's Studies Internship Program (Legislative Session 2003). Contact the Women's Studies undergraduate office (612) 624-6809 or email wostadv@umn.edu for more details and a brochure describing the internship program.

WoSt 4900W Women's Studies Seminar
(Sec 001); max crs 12; 4 repeats allowed; A-F only; prereq—WoSt major, junior or senior standing, or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Scheman, Naomi Beth !!**CLA Distinguished Teaching Award!!**
One of the earliest theoretical projects of second-wave feminism was the articulation of the concept of gender and its relationship on the one side to biological sex and on the other to normative sex-roles. From the beginning this project was subject to critique, from a number of different directions and for a number of different theoretical and political reasons. The question "who counts as a 'real' woman?", along with related questions about who gets to decide and why it matters, have become over the past 25 years increasingly contested. We will explore some of the germinal moments of the contestation, looking in particular at the ways in which activism and theory shape each other. The early twentieth century philosopher Ludwig Wittgenstein urged us to look for the meanings of our words in the uses to which we put them, and I will be arguing, in that spirit, that at this time and place we ought neither to expect nor to want a stable, coherent definition of gender or a stable coherent answer to the question of who is and is not a woman. The aim of the course, therefore, is not clarity but productive confusion: "queerying" gender. The aim will be to destabilize the concept of gender, by revealing the coerciveness involved in denying the gaps and inconsistencies in the application of gender categories to real people. Producing that confusion will be a collaborative exercise—among the course participants and the authors we will be reading.
Work load: Students will be expected to play an active role in the class, through discussion and short writing

WoSt 5103 Feminist Pedagogies
(Sec 001); prereq—grad or instr consent; 3 cr
Instructor: Pough, Gwendolyn Delores
In this course, we will examine feminist pedagogies by studying feminist, multicultural and radical theories and practices of education. This course will look at both macro and micro issues: curriculum design/transformation and instructional/classroom practices. Our seminar will also serve as a practicum for the application of many kinds of radical pedagogies.

WoSt 5300 Communication and Gender
(Sec 001); A-F only; prereq—credit will not be granted if credit has been received for Spch 5406; one women's studies course or instr consent; 3 cr
Instructor: STAFF
How gender affects verbal communication. Development of analytical skills through readings, exercises, research that raises awareness of the power of language and the influence of gender prescriptions. Comparisons across languages where possible. This course can be used by Women's Studies majors to satisfy the Women's Studies Advanced Theory Requirement. Permission by instructor required.

Wood and Paper Science

203 Kaufert Laboratory, 612-625-5200

WPS 1001 Wood and Paper Science Profession Orientation
(Sec 001); S-N only; 1 cr
Instructor: Massey, Joseph Gerald
The objective of this course is to introduce the undergraduate student to the professions of forest products manufacturing and paper manufacturing. The course is intended to stimulate interest in the study of how society converts the forest resource into products, while protecting the source of the raw material. This course is required for all wood and paper science majors and is also recommended for students who wish to learn more about the forest products and paper manufacturing professions. One goal of the course is to encourage students in other majors to consider forest products and paper manufacturing as possible career tracks. Guest speakers from the forest products and paper manufacturing industries will discuss careers in their professions. This is designed as a freshman level course. No previous knowledge of forestry is assumed. Transfer students should take this course as soon as possible after transfer, most commonly in fall semester of their first year in the program.
Class time: 50% lecture, 50% discussion
Work load: 15 pages of writing per semester
Grade: 30% final exam, 30% written reports/papers, 20% special projects, 20% class participation

WPS 1301 Wood as a Raw Material
(Sec 001); A-F only; 3 cr
Instructor: Bowyer, James Louis !!**Morse Alumni Award!!**
The anatomical structure of wood is the subject of the first one-third of the course, followed in the next one-third by a study of wood's physical properties. The course is concluded by an examination of raw material measurement and conversion to useful products. There are two general objectives of the course: 1) To allow students to learn of the physical nature of wood and how this physical nature affects both the type of products which can be made from wood and the properties of these products. 2) To provide students with an understanding of the industries which depend upon wood for their raw materials, the type and quality of wood required by these industries, and the method of measuring and evaluating various types of wood raw materials. No previous knowledge of forestry or forest products is assumed. Transfer students in the Wood and Paper Science curriculum should take this course as soon as possible after transfer, most commonly in fall quarter of their junior year. This course consists of a combination of lectures and independent study web-based sessions.
Class time: 67% lecture, 33% discussion
Work load: 25-50 pages of reading per week, 3 exams
Grade: 60% mid-semester exam(s), 40% final exam, Note: there are two mid-semester exams—each 30% of grade
Exam format: Ture false/multiple choice, short answer, short essay
Course URL: gis.umn.edu~rsmith/wps1301/

WPS 3393 Directed Study
(Sec 001-011); max crs 3; prereq—instr consent; 1-3 cr
Instructor: STAFF
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.

WPS 3396 Industrial Internship (Industrial Assignment)
(Sec 001-007); A-F only; prereq—WPS cooperative ed student; 1 cr
Instructor: STAFF
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.

WPS 4200H Honors Seminar
(Sec 001); A-F only; prereq—WPS upper div honors, instr consent; meets HON req of Honors; 1 cr
Instructor: Massey, Joseph Gerald
A class seminar of honors students consisting of discussions on wood and paper science led by the professor.
Class time: 100% discussion
Work load: 20 pages of writing per semester
Grade: 50% written reports/papers, 50% class participation
Course URL: www.cnr.umn.edu/WPS

WPS 4301 Statics and Engineering Mechanics
(Sec 001); prereq—1301 or instr consent; 3 cr
Instructor: Shmulsky, Rubin
Basic statics, engineering mechanics, and strength of materials. This trigonometry based course provides insight for solving beam, column, truss, and other types of mechanics based problems. Especially useful for architecture, construction management, agricultural engineering, or other students interested in learning the nature of strength and failure as related to structural materials with an emphasis on wood.
Class time: 85% lecture, 15% discussion
Work load: 20 pages of reading per week, 3 exams, 1 papers, Problem solving homework
Exam format: Problem solving

WPS 4302 Wood Chemistry
(Sec 001); A-F only; prereq—2xxx organic chem course; 3 cr
Instructor: Tschirner, Ulrike Waltrau
Course focuses on structure and anatomy of wood, carbohydrate and lignin chemistry, and on wood extractives. Included are biosynthesis and structures of cellulose, hemicellulose, and lignin. Reactions of wood components under different conditions are described. The course objective is for students to gain a fundamental understanding of wood components and their chemical behavior during typical processing steps such as pulping and bleaching for production of papermaking fiber.
Class time: 80% lecture, 20% discussion
Work load: 10 pages of reading per week, 5 exams, 6 homework assignments
Grade: 40% final exam, 40% quizzes, 20% problem solving
Exam format: Essay and some multiple choice

WPS 4305W Pulp and Paper Technology
(Sec 001); prereq—Jr or instr consent; meets CLE req of Writing Intensive; 3 cr
Instructor: Tschirner, Ulrike Waltrau
This course is an introduction to the technology of pulp and paper manufacture. Terminology and key parameters are introduced. Stepwise description of processes from harvesting of trees through fiber production and papermaking. Other related topics such as recycling of papers are included. Lab section includes basic paper testing, recycled fiber pulping and ink removal, fines retention, dry strength addition. At least one trip to a papermill will be included in lab section of class. Course is targeted towards Paper Science and Engineering students at the junior level. Class also strongly recommended for students interested in Paper Science and Engineering "minor" or in general overview of paper and paper manufacture.
Class time: 70% lecture, 30% laboratory
Work load: 5 pages of reading per week, 20 pages of writing per semester, 4 exams, 2 papers
Grade: 25% final exam, 15% written reports/papers, 35% quizzes, 10% class participation, 15% lab work
Exam format: Essay/multiple choice

WPS 4306 Analysis of Production Systems
(Sec 001); prereq—1301 or instr consent; 3301 recommended; 2 cr
Instructor: STAFF
The primary objective of the course is to introduce the undergraduate student to the basic concepts of engineering economics and their application to problems in forest products manufacturing, paper manufacturing, and distribution systems. The goal is to provide the student with the tools to solve problems based on the principles of economic efficiency. The forest products professionals and paper engineers are problem solvers, managers, and decision makers. The discipline of engineering economics provides the framework for identifying alternative uses of limited resources and selecting preferred courses of action. A secondary objective of the course is to improve the student's ability to conduct a complete economic analysis and report the results, orally and in writing. Finally, the student is expected to develop skills using spreadsheets adequate to perform basic economic problem manipulation.

WPS 4318 Pulp and Paper Process Simulation and Control
(Sec 001); prereq—4305, ChEn 4001, MEW 3321, ME 3322, Math 2263, [paper sci/engineering sr or grad student]; 3 cr
Instructor: Yin, Kewen
Modeling and analysis of the dynamic behavior, design of linear control systems for pulp and paper process. Topics include: dynamic response and stability of linear systems, PID controllers and controller tuning, synthesis of feedback and feedforward controllers. This is a required course for pulp and paper science students. Target audience: Pulp and Paper undergraduate and graduate students. Textbook: Seborg, D.E., Edgar, T.F. and Mellichamp, D.A., "Process Dynamics and Control"; John Wiley & Sons, 1989.
Class time: 80% lecture, 5% discussion, 15% laboratory
Work load: 20 pages of reading per week, 6 exams, 12 homework assignments
Grade: 30% mid-semester exam(s), 35% final exam, 20% quizzes, 15% problem solving
Exam format: problem solving

WPS 4359 Surface, Colloids, and Coating Processes
(Sec 001); prereq—4305, Chem 3501, ME 3321; 4 cr
Instructor: Severtson, Steven John
This course will introduce students to concepts of surface and colloid science and polymer chemistry important to papermaking. The emphasis will be on the various interactions that occur in a papermaking furnish and how paper properties and the papermaking process can be enhanced through the use of chemical additives. Topics covered will include: water analysis, colloidal stability, structure and charge of papermaking fibers and fines, charge measurements, anionic trash, polymer adsorption to fibers, origin and control of papermaking contaminants, retention and drainage, and trends in chemical use by the industry.
Class time: 80% lecture, 20% discussion

WPS 4491 Senior Topics (Independent Study)
(Sec 001-012); max crs 4; prereq—CNR sr, instr consent; 1-4 cr
Instructor: STAFF
Independent study in an area of interest to an undergraduate majoring in one of the fields within the College of Natural Resource.

WPS 4801H Honors Research
(Sec 001); A-F only; prereq—WPS upper div honors, instr consent; meets HON req of Honors; 2 cr
Instructor: STAFF
First semester of independent research project supervised by faculty member.

WPS 4802H Honors Research
(Sec 001); A-F only; prereq—WPS upper div honors, instr consent; meets HON req of Honors; 2 cr
Instructor: Massey, Joseph Gerald
Research problems developed by the student and the professor together, problems in the area of wood and paper science geared to the student's scholastic and career interests.
Class time: 100% discussion
Work load: 20 pages of writing per semester
Grade: 100% special projects
Course URL: www.cnr.umn.edu/WPS

Work, Community, and Family Education
210 VoTech Building, 612-625-3757

WCFE 3011W Introduction to Technology and Public Ethics
(Sec 001); meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Davis, Joan Audray
Nature of technology. Values, ethical issues related to technology. Technology and transformaition of workplace, family, community life.
Class time: 25% lecture, 50% discussion, 25%
Grade: 70% written reports/papers, 10% in-class presentations, 20% class participation

WCFE 5011W Technology and Public Ethics
(Sec 001); A-F only; meets CLE req of Citizenship/Publ Ethics Theme; meets CLE req of Writing Intensive; 3 cr
Instructor: Davis, Joan Audray
Nature of technology. Values, ethical issues related to technology. Technology and transformaition of workplace, family, community life.
Class time: 25% lecture, 50% discussion, 25%
Grade: 70% written reports/papers, 10% in-class presentations, 20% class participation

WCFE 5451 Seminar: Youth Development Leadership
(Sec 001); max crs 4; 4 repeats allowed; S-N only; prereq—Youth Development Leadership student or instr consent; 1 cr
Instructor: Walker, Joyce Ann
The seminar offers educational experiences co-created by faculty and students to integrate learning and leadership on community youth development issues. Seminar topics change each semester. The seminar is led, or co-taught, by graduate students and faculty with an emphasis on addressing critical issues in the field from the perspective of theory and practice. Student-led discussions, presentations, and class projects in the community are the norm. Selected readings reflect the topic. Seminar is designed for graduate students in the Youth Development Leadership M.Ed. cohorts. Some reading assignments are available by downloading from organizational websites. This course can be taken in units of 1 or 2 credits. Students may not take more than 4 graduate credits in WCFE 5451.
Class time: 50% discussion, 25% student presentations; 25% class projects in the community
Work load: 30 pages of reading per week, Planning and preparation time with team members and community site visits.
Grade: 25% in-class presentations, 50% class participation, 25% , 25% community issue assignments
Exam format: no exams

Youth Development and Research

386 McNeal Hall 612-624-3700

YoSt 3101 Introduction to Youth Work
(Sec 001); prereq—1 gen psy and 1 gen soc course; 2 cr
Instructor: Skott-Myhre, Hans A
Exploration of settings in which youth work is done- schools, informal education, juvenile justice, mental and physical health organizations, religious organizations. Key issues, policy and programmatic responses: philosophy, values, roles, tasks of youthworkers and career programs. Class discussion will highlight Adolescence: An historical/ social/ cultural/political/ economic view, Youth Development Theory, The Praxis (i.e. Practice of Youth work, The Use of Self in Youth work, and Youth work and Youth work Organizations. Methods of instruction include dialogue and interaction as primary tools of education including lecture, small group and large group discussion, class presentation, and utlization of guest speakers from the community. This class can be taken for undergraduate credit, major-only.
Class time: 50% lecture, 50% discussion
Grade: 60% written reports/papers, 40% class participation

YoSt 5031 Youth in the World
(Sec 001); prereq—Upper div AdPy course; 3 cr
Instructor: Baizerman, Michael Leon
The purpose of this course is to encourage critical thinking about how youth as idea and as lived reality are understood in scholarship, public discourse, and professional practice. The larger frame includes building a basis for understanding youth, working with youth or on behalf of youth. Topics discussed include Being a Youth: Experience, Age, Friends, Family, Ethnicity (race, social class, place), and Sex and Sexuality. Methods of instruction include lecture, small group discussion and participation.
Class time: 50% lecture, 50% discussion
Grade: 70% written reports/papers, 30% class participation

YoSt 5291 Independent Study in Youth Studies
(Sec 001, 002); max crs 8; 1-8 cr
Instructor: STAFF
Independent reading and/or research under faculty supervision. This course can be taken for undergraduate or graduate credit.
Class time: 100% Individually designed and negotiated.

YoSt 5313 Direct Work with Adolescents
(Sec 001); prereq—Two social sci courses, exper working with youth or instr consent; 2 cr
Instructor: STAFF
Student may contact the instructor or department for information.

YoSt 5322 Work with Youth—Families
(Sec 001); prereq—5321 or upper div AdPy course, family theory course or instr consent; 2 cr
Instructor: Lourie, Ira S
Theories and techniques of working with youth and their families. Emphasis of practical methods of structural change; developing effective communication, decision-making, and problem-solving systems; winning the family's cooperation; and the role of the professional to influence healthy family development. Topics include: Definitions of Adolescence, Adolescent Developmental Tasks, Adult Developmental Tasks, Relationship Between Adolescent and Adult Development in Families, Problems of Adolescents and Families, Relationship between Problem and Normal Behaviors, Unconditional Approaches to Working with Families, Wrap-around Treatment Interventions with Families, Integration of Family and Developmental Theories, Dynamics of Problems in Families with Adolescents. Methods of Instruction: Lecture, Group Discussion, Mock Family Role Plays; Intervention Demonstrations. This class can be taken for graduate or undergraduate credit.
Class time: 40% lecture, 40% discussion, 20%
Grade: 50% written reports/papers, 30% class participation, 20% problem solving

ONE STOP Hours and Locations

Minneapolis campus, East Bank

200 Fraser Hall, 106 Pleasant Street SE
8 a.m.-5:30 p.m., Monday-Thursday; 8 a.m.-4 p.m., Friday

Office of the Registrar

Phone: 612-625-5333
Transcript requests: 612-624-4115
Fax: 612-626-0008
Web: <onestop.umn.edu/Enrollment/enroll.html>
Mailing address:
Office of the Registrar
University of Minnesota, Twin Cities
200 Fraser Hall, 106 Pleasant Street SE
Minneapolis, MN 55455-0422

Office of Student Finance

Student Accounts Receivable

Phone: 612-625-8500
Disability Services liaison: 612-625-5544
Fax: 612-626-0387
E-mail: stars@café.tc.umn.edu
Web: <onestop.umn.edu/Finances>
Mailing address:
Student Accounts Receivable
University of Minnesota, Twin Cities
210 Fraser Hall, 106 Pleasant Street SE
Minneapolis, MN 55455-0422

Scholarships and Financial Aid

Phone: 612-624-1665 or 1-800-400-8636 (toll-free outside Twin Cities)
TTY (text telephone for hearing impaired): 612-626-0701
Disability Services liaison: 612-625-9578
Fax: 612-624-9584
E-mail: osfa@tc.umn.edu
Web: <onestop.umn.edu/FinancialAid>
Mailing address:
Office of Student Finance
University of Minnesota, Twin Cities
210 Fraser Hall, 106 Pleasant Street SE
Minneapolis, MN 55455-0422

Minneapolis campus, West Bank

130 Skyway, 219 19th Avenue So
8 a.m.-5:00 p.m., Monday-Tuesday; 8 a.m.-4 p.m., Wednesday-Friday (fall and spring semester);
8 a.m.-4 p.m. Monday-Friday (summer term and when classes are not in session)
Phone: 612-626-9110
Fax: 612-626-9129
Transcript Requests: 612-624-4115

St Paul campus

130 Coffey Hall, 1420 Eckles Avenue, St Paul, MN, 55108
8 a.m.-4 p.m. Monday-Friday; financial aid walk-in counseling, 12:30-3 p.m., Monday, Wednesday, Thursday
Phone: 612-624-3731
Fax: 612-624-4943
Transcript Requests: 612-624-4115

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