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

AHS 1102 Orientation to Health Careers
OPT No Aud, 1 credit(s); Credit will not be granted if credit has been received for: AHS 1101;
Instructor: Simpson, Scott W
Description: Please note that this course does not require the purchase of a textbook or additional course materials. This Web-based, one credit course is for undergraduate students who are exploring health majors and professions. Students will have the opportunity to reflect on their own values, skills and interests. You will learn more about the academic and experiential requirements for health professional schools at the University. Activities will include interest inventories, discussion, journaling, developing an action plan, and other reflective assignments. This course will help you decide if a career in the health professions is a good fit for you.
Style: 100% Web Based.
Grading: 33% quizzes, 33% reflection paper, 33% other evaluation.

AHS 1600 The Future Physician I: Medicine in the 21st Century
A-F only, 1 credit(s);
Instructor: Todd, Tricia
Description: Learn about the multi-disciplinary field of medicine and the challenges shaping the work of health professionals in the healthcare field. Explore the history of medicine and health as well as grow in an understanding of global health issues and global healthcare systems. Explore the relationships and roles of physicians, their team members and the patient and learn about the commitment needed to become a physician. This course is taught collaboratively by Dr. Shailey Prasad, MD, MPH, Assistant Professor, University of Minnesota, Department of Family Medicine and Community Health; Investigator, Rural Health Research Center, University of Minnesota; Medical Director, Broadway Family Medicine, and Tricia Todd, MPH, Assistant Director of the Health Careers Center, University of Minnesota.

AHS 1600 The Future Physician I: Medicine in the 21st Century
A-F only, 1 credit(s);
Instructor: Slattengren DO, Andrew Heslin
Description: Learn about the multi-disciplinary field of medicine and the challenges shaping the work of health professionals in the healthcare field. Explore the history of medicine and health as well as grow in an understanding of global health issues and global healthcare systems. Explore the relationships and roles of physicians, their team members and the patient and learn about the commitment needed to become a physician. This course is taught collaboratively by Dr. Shailey Prasad, MD, MPH, Assistant Professor, University of Minnesota, Department of Family Medicine and Community Health; Investigator, Rural Health Research Center, University of Minnesota; Medical Director, Broadway Family Medicine, and Tricia Todd, MPH, Assistant Director of the Health Careers Center, University of Minnesota.

AHS 1602 The Future Physician III: Experiences in Health
2 credit(s);
Instructor: Todd, Tricia
Description: View our Youtube commercial for this course - http://youtu.be/_BoNu2AO-Fw. Registration for this course requires completion of AHS 1600 or AHS 1601, instructor approval and a permission number. Requests to
Tricia Todd, MPH, course instructor, at todd0002@umn.edu. An essential component of your application to medical school is experience in a health care setting. This course requires you to complete 35 hours of volunteer experience in a setting that employs physicians and serves patients. In addition, you will complete a medical school application plan and gain additional insight into your own fit with the field of medicine.

**AHS 2300 Orientation to Clinical Research**
- **A-F only, 1 credit(s);**
- **Instructor:** Beniak DNP, Judith Anne
- **Description:** Are you interested in learning about and gaining clinical research experience? To apply? go to this link https://umn.qualtrics.com/SE/?SID=SV_8k6vY7APGPFNYUd By taking the AHS 2300 course in fall you will: ? Learn about clinical research? Meet a range of faculty with clinical research experience? Participate in 15 hours of a field experience in a clinical research setting? Develop a research proposal, with potential to participate in an ongoing clinical research opportunity in spring 2015.* *This option may include the opportunity to study abroad in Denmark, and conduct clinical research there. If you are interested in this option, please answer accordingly on the application survey (linked below). The course is taught and coordinated by Russell Luepker, MD, Judy Beniak, DNP, MPH, RN and Tricia Todd, MPH. The class meets 8 times in the fall semester, and you participate in 15 additional hours of a clinical research field experience as part of the course. To apply to this class you must meet the following requirements: ? A cumulative undergraduate GPA of 3.5 or above. ? An interest in clinical research? Past experiences in a health setting? volunteer, internship, or paid work? A career interest in a health profession such as dentistry, medicine, nursing, pharmacy or public health? Enough flexibility in your schedule to allow 15 hours in a field placement during the fall semester To apply? go to this link https://umn.qualtrics.com/SE/?SID=SV_8k6vY7APGPFNYUd The course is offered by invitation only to 10 qualified students. We will be reviewing applications on a rolling basis. Some students may be invited for an additional in-person interview. If you are accepted into the course, you will receive a permission number which will guarantee your admittance into the class. For questions contact HCC office 612-624-6767.

**AHS 2400 Writing a Personal Statement**
- **S-N only, 1 credit(s);**
- **Instructor:** Todd, Tricia
- **Description:** Student may contact the instructor or department for information.

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

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**Accounting 3-122 Carlson School of Management**

**Acct 2050 Introduction to Financial Reporting**
- **A-F only, 4 credit(s); SophCredit will not be granted if credit has been received for: APEC 1251;**
- **Instructor:** Duke, Gordon Leon
- **Description:** Student may contact the instructor or department for information.

**Acct 2050 Introduction to Financial Reporting**
- **A-F only, 4 credit(s); SophCredit will not be granted if credit has been received for: APEC 1251;**
- **Instructor:** Fang, Vivian W
- **Description:** Student may contact the instructor or department for information.

**Acct 2050 Introduction to Financial Reporting**
- **A-F only, 4 credit(s); SophCredit will not be granted if credit has been received for: APEC 1251;**
- **Instructor:** Sheibany, Iman
- **Description:** Student may contact the instructor or department for information.

**Acct 2050 Introduction to Financial Reporting**
- **A-F only, 4 credit(s); SophCredit will not be granted if credit has been received for: APEC 1251;**
- **Instructor:** Tang, Chao
- **Description:** Student may contact the instructor or department for information.

**Acct 2050 Introduction to Financial Reporting**
- **A-F only, 4 credit(s); SophCredit will not be granted if credit has been received for: APEC 1251;**
- **Instructor:** Ma, Paul
- **Description:** Student may contact the instructor or department for information.
Acct 2050 Introduction to Financial Reporting
A-F only, 4 credit(s); Soph Credit will not be granted if credit has been received for: APEC 1251;
Instructor: Zhang, Gaoqing
Description: Student may contact the instructor or department for information.

Acct 2050H Honors: Introduction to Financial Reporting
A-F only, 4 credit(s);
Instructor: Ma, Paul
Description: Student may contact the instructor or department for information.

Acct 3001 Introduction to Management Accounting
A-F only, 3 credit(s);
Instructor: White, Paul Andrew
Description: This course introduces the topic of management accounting. The purpose of management accounting is to provide information to management for costing products, as well as for planning, controlling, and evaluating business activities. The purpose of this class is to introduce managerial accounting, which directly relates to managerial decision-making. The course will introduce the design and use of costing systems with specific emphasis on activity based costing systems. The role of managerial accounting in operational and strategic decisions of business firms will also be emphasized.
Style: 40% Lecture, 30% Small Group Activities, 30% Demonstration.
Grading: 30% mid exam, 32% final exam, 25% quizzes, 13% class participation.

Acct 3001 Introduction to Management Accounting
A-F only, 3 credit(s);
Instructor: Forester, Clayton L
Description: Student may contact the instructor or department for information.

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

Acct 3150 Role of the Accountant in Today's Finance Function
S-N only, 1 credit(s);
Instructor: Batina, Tom
Description: Student may contact the instructor or department for information.

Acct 3199 Internship in Public Accounting
S-N only, 2 credit(s);
Instructor: Biondich, Nick E
Description: Student may contact the instructor or department for information.

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

Acct 3299 Internship in Management Accounting
S-N only, 2 credit(s);
Instructor: Biondich, Nick E
Description: Student may contact the instructor or department for information.

Acct 5101 Intermediate Accounting I
Acct 5101 Intermediate Accounting I
A-F only, 4 credit(s);
Instructor: Biondich, Nick E
Description: Student may contact the instructor or department for information.

Acct 5101 Intermediate Accounting I
A-F only, 4 credit(s);
Instructor: Iselin, Michael
Description: Student may contact the instructor or department for information.

Acct 5102W Intermediate Accounting II
A-F only, 4 credit(s); Meets CLE req of Writing Intensive
Instructor: Tranter, Terry L
Description: Students in class are juniors, seniors, and master's students. While most students are accounting majors, the course is also valuable for students in finance. The class covers the valuation of liabilities and owners’ equity accounts, as well as cashflow statements and earnings per share calculations. Students need a thorough background in financial accounting and present value calculations to do well in Acct 5102.
Style: 100% Lecture.
Grading: 47% mid exam, 25% final exam, 19% reports/papers, 9% other evaluation.
Exam Format: Open-ended questions 85+%; essays 10-15%; 4-6 questions per exam; exams are long and run the full class period

Acct 5125 Auditing Principles and Procedures
A-F only, 4 credit(s);
Instructor: Beil, Frank J
Description: Student may contact the instructor or department for information.

Acct 5125 Auditing Principles and Procedures
A-F only, 4 credit(s);
Instructor: Batina, Tom
Description: Student may contact the instructor or department for information.

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

Acct 5135 Fundamentals of Federal Income Tax
A-F only, 4 credit(s);
Instructor: Naples, Tammy
Description: Student may contact the instructor or department for information.
Acct 5160 Financial Statement Analysis  
A-F only, 2 credit(s);  
Instructor: Duke, Gordon Leon  
Description: Student may contact the instructor or department for information.

Acct 5160 Financial Statement Analysis  
A-F only, 2 credit(s);  
Instructor: Beil, Frank J  
Description: Student may contact the instructor or department for information.

Acct 5236 Introduction to Taxation of Business  
A-F only, 2 credit(s);  
Instructor: Conlon, Roger John  
Description: Student may contact the instructor or department for information.

Acct 5310 International Accounting  
A-F only, 2 credit(s);  
Instructor: Rayburn, Judy Ann  
Description: Student may contact the instructor or department for information.

Acct 5420 MAcc directed study  
1-4 credit(s), max credits 4, 1 completion allowed;  
Instructor: Kallio, Larry Rodger  
Description: Student may contact the instructor or department for information.

Acct 6100 Financial Statement Analysis  
A-F only, 4 credit(s);  
Instructor: Beil, Frank J  
Description: Student may contact the instructor or department for information.

Acct 6160 Accounting for Mergers and Acquisitions, and Derivatives  
A-F only, 2 credit(s);  
Instructor: Beil, Frank J  
Description: Student may contact the instructor or department for information.

Acct 8001 Internal Control  
A-F only, 4 credit(s);  
Instructor: Kallio, Larry Rodger  
Description: Student may contact the instructor or department for information.

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

Acct 8802 Empirical Research-Capital Markets  
4 credit(s), max credits 8;  
Instructor: Zhang, Ivy Xiying  
Description: Student may contact the instructor or department for information.

Acct 8812 Information Economics II  
4 credit(s);  
Instructor: Kanodia, Chandra S  
Description: Student may contact the instructor or department for information.

Addiction Studies  Credit Certificate Prog/College of Continuing Edu

AddS 5011 Foundations in Addiction Studies  
A-F only, 2 credit(s);
AddS 5011 Foundations in Addiction Studies
A-F only, 2 credit(s);
Instructor: Wamsley, Debra S
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Theoretical perspectives/concepts related to etiology of alcohol/drug dependency/abuse. Emphasizes bio-psycho-social models of addiction/disease: psychodynamics, social learning, contingency, family systems. Connection of theory to empirical research.
Style: Online
Grading: See attached syllabus

AddS 5021 Introduction to Evidence Based Practices and the Helping Relationship
A-F only, 3 credit(s);
Instructor: Boisen, Laura Sue

AddS 5031 Applied Psychopharmacology
A-F only, 2 credit(s);
Instructor: Frenz, David Arthur
Description: Categories of psychoactive drugs. Medicines to treat mental disorders. Substances such as alcohol, nicotine, cocaine, and marijuana. What occurs physiologically when someone takes a psychoactive drug.

AddS 5041 Methods and Models I: Motivational Counseling
A-F only, 2 credit(s);
Instructor: Isenhart, Carl E
Description: Concepts of Motivational Interviewing. Spirit of MI. Primary counseling skills. Working with resistance. Identifying/elicitng change talk. Transitioning into change, negotiating a treatment plan. Strengths/shortcoming of MI.

AddS 5041 Methods and Models I: Motivational Counseling
A-F only, 2 credit(s);
Instructor: Weigelt, Jennifer E
Description: Student may contact the instructor or department for information.

AddS 5051 Methods and Models II: Cognitive Behavioral Therapy
A-F only, 2 credit(s);
Instructor: Kammer-Hodge, Heidi Elizabeth
Description: Student may contact the instructor or department for information.

AddS 5061 Foundations of Group Work
A-F only, 3 credit(s);
Instructor: Rohovit, Julie L
Description: Designing/facilitating therapy groups. Intra-/inter-personal dynamics, leadership skills, developmental aspects, ethical issues. Application to therapy of chemically addicted individuals. Lectures, discussion, experiential exercises, small groups, readings.

AddS 5071 Foundations of Co-occurring Disorders
A-F only, 2 credit(s);
Instructor: Becher-Ingwalson, Ann M
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing
Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Understanding the mentally ill and chemically abusive or dependent client. Intervention, advocacy, education, and support for client and those that are part of his/her environment. Social, environmental, and multicultural factors that contribute resources for these clients.

**Style:** Online  
**Grading:** See attached syllabus

AddS 5081 Multicultural Foundations of Behavioral Health  
**A-F only, 3 credit(s);**  
**Instructor:** Heu,Melanie  
**Description:** Student may contact the instructor or department for information.

AddS 5081 Multicultural Foundations of Behavioral Health  
**A-F only, 3 credit(s);**  
**Instructor:** Wamsley,Debra S  
**Description:** What is culture? How might culture, cultural practices, and history be significant in the use/abuse of substances? How is culture relevant to the attitudes/practices in the prevention/treatment of substance use/abuse? Multicultural counseling and cultural competence in addiction counseling. People as individuals. Clinician's own cultural worldview/ other cultural worldviews.

AddS 5091 Assessment and Treatment Planning I  
**A-F only, 3 credit(s);**  
**Instructor:** Wawro,George  
**Description:** Core addictions counseling functions including clinical assessment, case management, documentation treatment planning, and ethical issues. Students begin process of securing internship.

AddS 5996 Internship in Substance Abuse Counseling  
**S-N only, 1-8 credit(s), max credits 8, 4 completions allowed;**  
**Instructor:** Spence,Micheleene Rose  
**Description:** Student may contact the instructor or department for information.

### Aerospace Engineering and Mechanics  
107 Akerman Hall

**AEM 1905 Freshman Seminar: Aircraft and Spacecraft: Yes, This Is Rocket Science! High-Power Rocketry**  
**OPT No Aud, 2 credit(s), max credits 4;**  
**Instructor:** Flaten,James Alfred  
**Description:** Student may contact the instructor or department for information.

**AEM 2011 Statics**  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** 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**  
**A-F only, 3 credit(s);**  
**Instructor:** STAFF  
**Description:** 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 2021 Statics and Dynamics**  
**A-F only, 4 credit(s);**  
**Instructor:** Ketema,Yohannes  
AEM 3031 Deformable Body Mechanics  
A-F only, 3 credit(s);  
Instructor: Hesla, Todd  
Description: Student may contact the instructor or department for information.

AEM 3101 Mathematical Modeling and Simulation in Aerospace Engineering  
A-F only, 2 credit(s);  
Instructor: Balas, Gary John  
Description: Student may contact the instructor or department for information.

AEM 4000H Honors Research Seminar  
S-N only, 0 credit(s);  
Instructor: Shield, Thomas William  
Description: Student may contact the instructor or department for information.

AEM 4201 Fluid Mechanics  
A-F only, 4 credit(s);  
Instructor: Nichols, Joseph W  
Description: Student may contact the instructor or department for department for information.

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

AEM 4321 Automatic Control Systems  
A-F only, 3 credit(s);[3101 or ME 3281 or EE 3015], [CSE upper div or grad student]Credit will not be granted if credit has been received for: EE 4231;  
Instructor: Posbergh, Thomas Alfred  
Description: Student may contact the instructor or department for information.

AEM 4331 Aerospace Vehicle Design  
A-F only, 4 credit(s);  
Instructor: Garrard, William L  
Description: Student may contact the instructor or department for information.

AEM 4581 Mechanics of Solids  
3 credit(s);  
Instructor: James, Richard D  
Description: This course is a basic course in Solid Mechanics and an introduction to Continuum Mechanics. The course will be completely self-contained and there is no required textbook. Reference to relevant works and original sources will be announced during class. The goal is to transmit an "insider's view" of solid mechanics: what is really behind the choice of equations and methods? What is the connection with experiment? What can you do with it? The exposition in this course will be quite traditional, but examples will be chosen to reflect modern trends in science and technology. Outline 1. One-dimensional continuum mechanics (a) Kinematics and the balance of mass (b) Forces and the balance of momentum (c) Balance of energy (d) Work, energy and stability (e) Linear wave propagation in bars (f) Nonlinear wave propagation: shocks in solids (g) Thermoelastic effects in bars 2. Strings and rods (a) Equations of motion of a string (b) Euler-Bernoulli theory (c) Stability and buckling 3. Three dimensional elasticity (a) Kinematics of homogeneous deformations (b) Strain and principle strains (c) Stress and principle stresses (d) The linear and nonlinear theories of elasticity 4. Fracture mechanics (a) Fracture criteria (b) Fracture tests 5. Applications: shape memory materials, DNA as a rod, viruses, MEMS devices, energy conversion  
Style: 100% Lecture.

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

AEM 4602W Aeromechanics Laboratory  
A-F only, 4 credit(s); Meets CLE req of Writing Intensive  
Instructor: Shield, Thomas William
Description: Student may contact the instructor or department for information.

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

AEM 4896 International Professional Experience
A-F only, 3 credit(s);
Instructor: Garrard, William L
Description: Student may contact the instructor or department for information.

AEM 5251 Computational Fluid Mechanics
A-F only, 3 credit(s);
Instructor: Candler, Graham Vardy
Description: Student may contact the instructor or department for information.

AEM 5321 Modern Feedback Control
3 credit(s);
Instructor: salapaka, murti v
Description: Student may contact the instructor or department for information.

AEM 5401 Intermediate Dynamics
A-F only, 3 credit(s);
Instructor: Ketema, Yohannes
Description: Student may contact the instructor or department for information.

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

AEM 5501 Continuum Mechanics
3 credit(s);
Instructor: Tadmor, Ellad B
Description: Student may contact the instructor or department for information.

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

AEM 8201 Fluid Mechanics I
3 credit(s);
Instructor: Mahesh, Krishnan
Description: Student may contact the instructor or department for information.

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

AEM 8423 Convex Optimization Methods in Control
A-F only, 3 credit(s);
Instructor: Seiler Jr, Peter J
Description: Student may contact the instructor or department for information.
AEM 8442 Navigation and Guidance Systems  
A-F only, 3 credit(s);  
Instructor: STAFF  
**Description:** Student may contact the instructor or department for information.

AEM 8495 Advanced Topics in Aerospace Systems  
A-F only, 1-4 credit(s), max credits 9, 8 completions allowed;  
Instructor: STAFF  
**Description:** The aim of the course is to learn how to exploit information contained in data collected from a dynamical system to determine mathematical models describing the system's dynamical behavior. Methods of system identification are based on the theoretical principles of systems and signals. While the focus of the course is primarily on linear dynamical systems (described by a set of linear differential equations), the course will also cover general considerations about how to treat nonlinear. The system identification principles and methods apply to a wide range of areas. Examples used in the course will cover problems from current research in aerospace (e.g. miniature helicopter, micro-air vehicle) as well as problems from other areas like robotics, neurosciences, and economics. The primary textbook used for the course is "System Identification: Theory for the User" by L. Ljung. The other texts used as references in the course are listed in the reference section.

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

Aerospace Studies  
3 Armory

**Air 1000 Leadership Laboratory**  
S-N only, 1 credit(s), max credits 10, 10 completions allowed;  
Instructor: Peterson, Major Chris  
**Description:** Student may contact the instructor or department for information.

**Air 1104 Introduction to the Air Force Today I**  
A-F only, 1 credit(s);  
Instructor: Johnson, Christopher Mitchell  
**Description:** Student may contact the instructor or department for information.

**Air 1204 History of Airpower and Communication Skills**  
A-F only, 1 credit(s);  
Instructor: Hoopes, David A  
**Description:** Student may contact the instructor or department for information.

**Air 3301 Air Force Leadership, Quality, and Communication**  
A-F only, 3 credit(s);  
Instructor: STAFF  
**Description:** AS 3301 is a study of leadership, quality management fundamentals, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as means of demonstrating and exercising practical application of the concepts being studied. A mandatory Leadership Laboratory (cadets only) complements this course by providing advanced leadership experiences in officer-type activities, and gives the students an opportunity to apply leadership and management principles taught in this course. Target audience in first semester meet juniors.  
**Style:** 45% Lecture, 30% Discussion. Video tapes  
**Grading:** 20% reports/papers, 40% quizzes, 20% in-class presentation, 20% class participation. 40% tests  
**Exam Format:** Multiple choice, T/F, short answer

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

Style: 50% Lecture, 30% Discussion. student briefings
Grading: 25% mid exam, 25% final exam, 30% reports/papers, 20% in-class presentation.
Exam Format: essay, short answer, matching

### African American and African Studies
808 Social Sciences Tower

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

**Afro 1902 Freshman Seminar: Social & Cultural History of Blacks in Sports**
3 credit(s); Meets CLE req of Diversity and Soc Justice US
Instructor: Atkins, Keletso E
Description: Student may contact the instructor or department for information.

**Afro 3103 World History and Africa**
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: AFRO 5103;
Instructor: Atkins, Keletso E
Description: Student may contact the instructor or department for information.

**Afro 3108 Black Music: A History of Jazz**
3 credit(s);
Instructor: Williams, Yolanda Y
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The History of Jazz course looks at the development of America's true "classical" musical form. We will trace the roots of Jazz from West Africa to the spirituals and work songs of the African in the United States through Blues to the first form of Jazz in New Orleans. We will continues with Swing and the Modern Forms of Bebop, and Cool, Neo-Classicism and Jazz Hip Hop. Because the course focuses primarily on the social, economic, and political impact on jazz, and vice versa, it is a perfect course for the musician and the non-musician. Musicians and non-musicians will appreciate the developmental aspects of this once brand-new musical form and the ways these musical elements evolve when music and culture interact. Students will finally gain an appreciation of Jazz as a musical representation of the social history of the United States.
Style: Online
Grading: See attached syllabus

**Afro 3112 In the Heart of the Beat: the Poetry of Rap**
A-F only, 3 credit(s);
Instructor: Coleman PhD, Taiyon J
Description: Many critics and scholars assert that rap/poetry is the emergent African American literary art form of the postmodern age, which conveys the social, economic, and political experiences of lived peoples. Its roots reside in African and African American oral (vernacular) tradition, but its bloodline can also be traced back through the pages of
words set down by African American's most significant poets. The focus of this course is on the speech of rap, the narrative of rap, and the poetics of the words of rap. The course is not necessarily about the pop culture icons that produce and/or profit from rap. The class pedagogy, curriculum, and assessment will proceed from the belief that pulsating at the core of rap is a literary heart that burns to be recognized and that what is most often commercially heard is not even slightly representative of the depth and dimension of the poetry of rap. Rap/poetry is now used all over the world and used by all races and nationalities as a medium to express infinite human experiences and conditions. Following this line of thinking, the course shifts beyond the commonly heard rap songs and the usual lip-service paid to the poetic skills of popular rappers. For the purposes of this course, we will begin our exploration through considering the poetry of rap in the context of African American literature, American culture, and literary and social aesthetics in general; however, our target is to evaluate the quality and impact of the best of rap/poems that we are confronted with based upon our individual aesthetics and how rap/poetry has grown and transformed to include other, new and difference experiences, topics, peoples, and places. Our goal, then, is to liberate the words of rap and to examine their qualitative competence as literary works of art and their impact on culture(s).

**Grading:** Reader Responses (25%); Individual Presentations(10%); Group Presentations (25%); One Final Paper (30%); and Class Discussion (10%)
Nigeria and Sierra Leone. Moving back into the past, we will examine patterns of exercising power, managing conflict, dealing with diversity and difference, distributing resources, addressing inequality and punishing crime. We will consider how such patterns have developed and changed over time, how they have been affected by internal and external influences, and what roles they play in promoting or reducing conflict today.

Afro 3597W Introduction to African American Literature and Culture I
4 credit(s); credit will not be granted if credit already received for: Afro 3591W
Credit will not be granted if credit has been received for: ENGL 3597W
Meets CLE req of Literature; meets CLE req of Writing Intensive
Instructor: Wright, John S
Description: African Americans are "America's metaphor" Richard Wright declared, posing both a riddle and a riff - a wry reversal of conventional perspectives. Wright intimated that we might discover in the shadows of American literary life our brightest mirrors. We might thereby see ourselves—and the paradoxes and potentialities of our national experience—through the world of words and images conjured up over the past two centuries by African American writers. African American literature is a heavily "committed" tradition with both ancient African and Euro-American antecedents. Much of its mythological system and special "equipment for living" has been built on the communal base of the most elaborate vernacular tradition in American English—epic tales and legends, spirituals, blues, work songs, ballads, rhymed toasts, riddles, proverbs, jazz, jokes, and the rhetoric of rap music. Over the course of two semesters, in exploring the intricate world of cultural myth and metaphor that has resulted, our own caravan will lead us forward from pre-modern Africa itself and the era of the earliest African American literary works - 18th and 19th century slave autobiographies, oral folk texts, abolitionist essays, orations and poems-on to the contemporary period of literature marked by burgeoning diversity and modernist innovation, by growing critical acclaim, and by politico-aesthetic movements such as the Jazz Age Harlem Renaissance and the Black Arts Movement of the 1960s and 70s.
Style: 40% Lecture, 40% Discussion, 5% Laboratory. outside film viewings and online assignments
Grading: 83% reports/papers, 17% quizzes.
Exam Format: Quizzes are multiple choice and short answer

Afro 3627 Seminar: Harlem Renaissance
3 credit(s);
Credit will not be granted if credit has been received for: ENGL 5597;
Instructor: Wright, John S
Description: Student may contact the instructor or department for information.

Afro 3866 The Civil Rights and Black Power Movement, 1954-1984
3 credit(s);
Credit will not be received for: AFRO 5866;
Instructor: Mayes, Keith A
Description: Student may contact the instructor or department for information.

Afro 4105 Ways of Knowing in Africa and the African Diaspora
A-F only, 3 credit(s);
Instructor: Brewer, Rose Marie
Description: Student may contact the instructor or department for information.

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

Afro 4910 Topics in African American and African Studies: Policing America
1-3 credit(s), max credits 9, 3 completions allowed;
Instructor: Phelps, Michelle Suzanne
Description: This course is an in-depth sociological analysis of the origins, composition, and effects of policing in contemporary U.S. society. Throughout the course, we focus on using a social science lens to understand what
policing is and how it influences social life. We will pay particular attention to the ways in which racial inequalities are reflected in and reshaped by policing practices. The course material is divided into three units. In the first, we cover the early history of formal policing in the U.S. and contemporary developments, including broken windows policing and the war on drugs. We will read two ethnographies of policing in an urban locale and a rural town to better understand the lived experiences of the police and the policed. We then turn to the police as an organization, looking at the ways in which race, gender, and other social characteristics shape police work. In the third unit, we turn to how the logic of policing filters through and beyond the state in schools, welfare offices, the war on terror, and mass technological surveillance. Throughout the course, students will also use ethnographic tools to study policing themselves in local Minneapolis neighborhoods.

**Style:** 60% Lecture, 10% Film/Video, 20% Discussion, 10% Small Group Activities.

**Grading:** 30% final exam, 40% reports/papers, 20% quizzes, 10% class participation.

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**Afro 4991W Thesis Research and Writing**
- A-F only, 3 credit(s);
- Meets CLE req of Writing Intensive
- Instructor: Onishi,Yuichiro
- **Description:** Student may contact the instructor or department for information.

**Afro 5103 World History and Africa**
- A-F only, 3 credit(s);
- Grad student or instr consent
- Credit will not be granted if credit has been received for: AFRO 3103;
- Instructor: Atkins,Keletso E
- **Description:** Student may contact the instructor or department for information.

**Afro 5120 Social and Intellectual Movements in the African Diaspora**
- A-F only, 3 credit(s);
- Grad student or instr consent
- Credit will not be granted if credit has been received for: AFRO 3120;
- Instructor: Onishi,Yuichiro
- **Description:** Student may contact the instructor or department for information.

**Afro 5627 Seminar: Harlem Renaissance**
- 3 credit(s);
- Grad student or instr consent
- Credit will not be granted if credit has been received for: AFRO 3627;
- Instructor: Wright,John S
- **Description:** Student may contact the instructor or department for information.

**Afro 5866 The Civil Rights and Black Power Movement, 1954-1984**
- A-F only, 3 credit(s);
- Credit will not be granted if credit has been received for: AFRO 3866;
- Instructor: Mayes,Keith A
- **Description:** Student may contact the instructor or department for information.

**Afro 8910 Topics in Studies of Africa and the African Diaspora**
- 3 credit(s), max credits 9, 3 completions allowed;
- Instructor: Mathieu,Saje M
- **Description:** Student may contact the instructor or department for information.

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**Agricultural, Food, and Environmental Education 146 Ruttan Hall**

**AFEE 1001 Introduction to Agricultural Education and Extension**
- 1 credit(s);
- Instructor: Smith,Amy Rae
- **Description:** Student may contact the instructor or department for information.

**AFEE 2051 Current Technical Competencies**
- 3 credit(s);
- Instructor: Swiggum,James Frederick
- **Description:** Student may contact the instructor or department for information.

**AFEE 2221 People Skills for Leadership**
- A-F only, 3 credit(s);
- Instructor: Lorensen,Marianne Elizabeth
- **Description:** Student may contact the instructor or department for information.
AFEE 2421 Professional Communication for Agriculture, Food, and the Environment
A-F only, 3 credit(s);
Instructor: Swenson, Rebecca Dean
Description: This course is open to any student who wants to practice communicating effectively with many audiences. Students who want to be the next generation of teachers, scientists, industry leaders, advocates, and policy makers must learn how to communicate with the public, their peers, and other audiences. Success in the professional world requires more than mastery of technical knowledge; professionals must be able to communicate information and ideas with clarity, logic, and strategy in order to make an impact and enact change. The goal of this course is to help students practice foundational writing and speaking skills needed to join current conversations about agriculture, food, and natural resource use and to be successful in a wide variety of careers. For the final project, students work in teams to put together a symposium, modeled after the TED Talks conference (www.ted.com), in which they practice presenting engaging information to different audiences about important issues related to food, agriculture, or environmental challenges and solutions.
Style: 50% Lecture and Discussion, 50% Course Projects and Activities.
Grading: 60% Oral and Written Assignments; 20% quizzes; 20% Attendance, Discussion Board Postings and Participation
Exam Format: No exams. 3 quizzes. (Two quizzes are open-book format; the third is a team-based quiz.)

AFEE 3096 Experiential Learning: Production and Business
1-8 credit(s), max credits 12, 12 completions allowed;
Instructor: Swenson, Rebecca Dean
Description: Student may contact the instructor or department for information.

AFEE 3112 Building Construction Technology
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: OLPD 3412;
Instructor: Swiggum, James Frederick
Description: Student may contact the instructor or department for information.

AFEE 3361 World Development Problems
3 credit(s); Credit will not be granted if credit has been received for: AFEE 5361; Meets CLE req of Global Perspectives
Instructor: Plonski, Patrick John
Description: Student may contact the instructor or department for information.

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

AFEE 5235 Advanced Supervised Agricultural Experience Programs
2 credit(s);
Instructor: Greiman, Brad
Description: Student may contact the instructor or department for information.

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

AFEE 5361 World Development Problems
3 credit(s); Grad students only Credit will not be granted if credit has been received for: AFEE 3361;
Instructor: Plonski, Patrick John
Description: Student may contact the instructor or department for information.
AFEE 5697 Teaching Internship: School and Classroom Setting
2 credit(s);
Instructor: Smith, Amy Rae
Description: Student may contact the instructor or department for information.

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

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

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

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

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

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

Agronomy and Plant Genetics 411 Borlaug Hall

Agro 1093 Directed Studies
1-4 credit(s), max credits 12, 12 completions allowed;
Instructor: Smith, Kevin Paul
Description: Student may contact the instructor or department for information.

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

Agro 1660W First-Year Colloquium/Experience in Agroecosystems Analysis
A-F only, 2 credit(s); Meets CLE req of Writing Intensive
Instructor: Smith, Kevin Paul
Description: Student may contact the instructor or department for information.

Agro 3305 Agroecosystems of the world
3 credit(s); Meets CLE req of Global Perspectives
Instructor: Brakke, Mary Patricia
Description: Agroecosystems are defined by the natural environment, interactions of people with their environment and with others as they engage in food production. Throughout this course we use distance technology to speak with producers, consumers and scientists around the world to learn about agroecosystems. Videos, photos, and GIS databases augment our conversations with imagery at the local and global scale. These experiences will help students understand how the environment shapes food production practices and also how these practices impact the environment. We will consider issues and challenges to food production including climate change, the availability of water, the role of women and the role of governments. Students will be exposed to diverse perspectives on food production and participate in cross-cultural communication.
Style: 30% Lecture, 10% Film/Video, 10% Discussion, 20% Small Group Activities, 5% Student Presentation, 5% Guest Speakers, 20% Web Based.
Grading: 10% final exam, 40% reports/papers, 10% special projects, 10% quizzes, 10% reflection paper, 10% in-class presentation, 10% class participation.

Agro 4093 Directed Studies for Advanced Students
1-4 credit(s), max credits 12, 12 completions allowed;
Instructor: Brakke, Mary Patricia
Description: Student may contact the instructor or department for information.

Agro 4096 Professional Experience Program: Internship
1-3 credit(s), max credits 6, 6 completions allowed;
Instructor: Brakke, Mary Patricia
Description: Student may contact the instructor or department for information.

Agro 4097 Undergraduate Research Thesis
A-F only, 1-6 credit(s), max credits 12;
Instructor: Smith, Kevin Paul
Description: Students work with a faculty member to develop a research project, carry out the research, and write a thesis.
Style: Regular meetings are scheduled with instructor.
Grading: 100% reports/papers.

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

Agro 4605 Strategies for Agricultural Production and Management
3 credit(s);
Instructor: Porter, Paul M
Description: This course provides students with information and tools necessary to make informed land management decisions in ever-evolving economic, policy, and climate environments. We will evaluate the hows, whats and whys of crop management by solving real-world problems that agricultural professionals face. The focus will be state-of-the-art production and management practices for the major agricultural crops in Minnesota. Solving these problems will connect disciplines as diverse as agronomy, soil science, plant biology, entomology, plant pathology, ecology, and economics. Lectures will feature agricultural professionals and experts; a "lab" component will provide hands-on experience with modern equipment and data interpretation. Students can expect to develop their quantitative, communication, and critical evaluation, which will enhance future job prospects.
Style: 25% Lecture, 25% Discussion, 25% Laboratory, 10% Small Group Activities, 5% Student Presentation, 10%
Agro 4660 Senior Capstone
A-F only, 2 credit(s);
Instructor: Muehlbauer, Gary John
Description: This course examines the complexities of agricultural issues through a series of discussions. The course also engages students in exercises and discussions that integrate previous educational situations. This course is linked to undergraduate internships and other experiential learning opportunities such as thesis or direct studies and service learning. Written and oral assignments are based on internships or other learning experiences.
Style: 10% Lecture, 90% Discussion.
Grading: 50% reports/papers, 30% in-class presentation, 20% other evaluation. class discussion

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

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

Agro 5431 Applied Plant Genomics and Bioinformatics
3 credit(s);
Instructor: Hirsch, Candice N
Description: Student may contact the instructor or department for information.

Agro 5999 Special Topics: Workshop in Agronomy
1-6 credit(s), max credits 6, 3 completions allowed;
Instructor: Porter, Paul M
Description: Student may contact the instructor or department for information.

Agro 5999 Special Topics: Workshop in Agronomy: Biocomputing Data Skills
1-6 credit(s), max credits 6, 3 completions allowed;
Instructor: Silverstein PhD, Kevin A
Description: Student may contact the instructor or department for information.

Agro 8023 Evolution of Crop Plants
A-F only, 3 credit(s);
Instructor: Morrell, Peter Laurent
**Evolution of Crop Plants**

*Description:* Evolution of Crop Plants is a multidisciplinary examination of crop domestication and improvement for graduate students in the life sciences. The four units of the course include: 1) Origins of Agriculture, 2) Methods for Understanding Domestication and Improvement, 3) The Genetic Basis of Agronomic Adaptations, 4) Twenty-first Century Plant Domestication.

*Style:* 20% Lecture, 5% Film/Video, 60% Discussion, 10% Laboratory, 5% Guest Speakers.

*Grading:* 25% mid exam, 20% final exam, 25% quizzes, 10% written homework, 20% in-class presentation.

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**Agro 8270 Graduate Seminar**

A-F only, 1 credit(s); Grad major in [applied plnt sci or agro or ent or hort or plnt brdg or plnt path or soil] or instr consent Credit will not be granted if credit has been received for: HORT 8270;

*Instructor:* Wyse, Donald L

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

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**Akkadian 245 Nicholson Hall**

**Akka 5011 Elementary Akkadian I**

3 credit(s);

*Instructor:* von Dassow, Eva

*Description:* Akkadian, comprising the Old Akkadian, Assyrian, and Babylonian dialects, was the predominant Semitic language of ancient Mesopotamia. It was written in the cuneiform script, and is attested in writing from the third millennium BCE, until the early first millennium CE. Akkadian was adopted as a written language in many regions beyond Mesopotamia, from Iran to Anatolia and even Egypt, in certain periods. This course is the first half of a two-semester introduction to the Akkadian language and the cuneiform script. The Old Babylonian dialect will serve as the basis for instruction in the language, using J. Huehnergard's "Grammar of Akkadian". Students will also learn the cuneiform script, using Rene Labat's "Manuel d'épigraphie akkadienne.” The class will read selections from texts of various genres, including the Laws of Hammurabi, the Descent of Ishtar, letters and contracts, and Assyrian royal inscriptions. Examination of actual artifacts inscribed in cuneiform will be part of the course.

*Style:* 45% Lecture, 50% Discussion, 5% Demonstration.

*Grading:* 30% final exam, 25% quizzes, 25% written homework, 20% class participation.

*Exam Format:* Translation, vocabulary and grammar exercises

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**American Indian Studies 19 Scott Hall**

**Amln 1001 American Indian Peoples in the United States**

3 credit(s); Meets CLE req of Diversity and Soc Justice US

*Instructor:* STAFF

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

**Amln 1002 Indigenous Peoples in Global Perspective**

A-F only, 3 credit(s); Credit will not be granted if credit has been received for: POL 1019; Meets CLE req of Global Perspectives

*Instructor:* Wilkins, David E

*Description:* This course focuses on the social, cultural and political relationship between selected indigenous peoples and the nation-states that settled in their territories and explores the various ways these states attempted to exterminate, incorporate, and segregate the native peoples they encountered. This class can be taken as an American Indian Studies course or a Political Science Studies course. It has been cross-listed. This course fulfills CLE requirements of Global Perspective Theme.

**Amln 1003 American Indians in Minnesota**

A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives

*Instructor:* Ghebregzi, Alex Anthony

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

**Amln 1003 American Indians in Minnesota**

A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives
Instructor: McKay, Neil Troy

Description: The course will focus in particular on the history, culture, and lived experience of American Indian people in the state of Minnesota. This course will explore how Anishinaabe (Ojibwe) and Dakota people have represented their lives and histories through film, music, oral traditions and written texts. It also includes some work by non-Indian scholars which focus on the distinctive cultural, philosophical, and linguistic perspectives of Anishinaabe and Dakota peoples. The course invites local Dakota and Ojibwe artists, elders, and scholars to speak on their own experiences. It is particularly interested in reweaponing the students tribal pedagogical and epistemological perspectives or "ways of knowing" as practiced by Indian people in Minnesota today and in the past. This course will introduce students to the humanities as understood within the intellectual perspectives and methodologies of the Dakota and Ojibwe, in particular, and American Indian Studies, more generally. Since these perspectives fall outside the western humanities tradition, this course offers a culturally unique and tribally based perspective on subject matter in the humanities, namely literature, art, music, philosophy and language.

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

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

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

Amln 1003 American Indians in Minnesota
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Historical Perspectives
Instructor: Bendickson, Wayne Joseph
Description: Student may contact the instructor or department for information.

Amln 3107 Structure of Anishinaabemowin, the Ojibwe Language
A-F only, 3 credit(s); 3103 Credit will not be granted if credit has been received for: AMIN 5107;
Instructor: Nichols, John David
Description: Analysis of grammatical structures of Anishinaabemowin.

Amln 3141 American Indian Language Planning
A-F only, 3 credit(s); 3103 or 3123 Credit will not be granted if credit has been received for: AMIN 5141;
Instructor: Nichols, John David
Description: In this course on the maintenance and revitalization of North American indigenous languages, our main objective is to prepare for work in American Indian communities on language issues through language planning activities, language documentation (preparation of grammars, dictionaries, and texts), and education (preparation of pedagogical materials, design of curriculum, and teaching). Among the topics to be covered are: overview of American Indian languages; introduction to American Indian language revitalization; language shift and language death; first nation, state/provincial, federal, and international perspectives on language rights and policies; introduction to language planning; language documentation: dictionaries, grammars, and texts; lexical innovation; literacy and orthographic standardization; second language acquisition and teaching; preparing pedagogical materials; teacher training; community activities; proposal writing.

Style: 50% Lecture, 50% Discussion.

Amln 3201W American Indian Literature
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Literature; meets CLE req of Writing Intensive
Instructor: Meland, Carter
Description: How do you creatively respond to the transformations and deformations introduced into Native America by the colonizing cultures of Europe and Euroamerica? In this course we examine how a select group of American Indian writers creatively respond to the experience of colonization in the narratives they imagine. This question is not aimed exclusively at American Indian writers though, nor is it even more generally aimed only at Indian people. Rather this question about colonization is aimed at everyone living here now: How do you (you sitting there reading this statement) creatively respond to the transformations and deformations introduced into Native America by the colonizing culture of Euroamerica? This course invites you to think about this question and this writing, even if you never have before. In class discussions we will examine how various writers approach this question and we will familiarize ourselves with the ideas, themes, and tools Native writers use through close readings of their works. In addition to examining the works we will also examine ways the various works ask us to consider and reconsider our own experiences of living in North America. Your responses to the works and our guiding question will be explored, examined, and developed in class discussions, a variety of short writing assignments, and in a final research essay. You will read four or five books for the course as well as a half-dozen or so short readings. As the course is Writing-Intensive you will also do about 40 pages of writing.

Style: 10% Lecture, 90% Discussion.

Grading: 80% reports/papers, 20% quizzes.
Amln 3301 American Indian Philosophies
3 credit(s); Meets CLE req of Diversity and Soc Justice US, meets CLE req of Literature, meets CLE req of Writing Intensive
Instructor: Power, Susan Mary
Description: Student may contact the instructor or department for information.

Amln 3301 American Indian Philosophies
4 credit(s); Meets CLE req of Arts/Humanities, meets CLE req of Diversity and Soc Justice US
Instructor: STAFF
Description: The purpose of this course is to introduce students to the philosophical thought and spiritual beliefs of native peoples of North America. Students will examine a broad spectrum of issues which influence the worldview of native people on this continent, including European contact and thought. Students may find some of the issues to be controversial and personally challenging, however, a thorough discussion of the impact of European influences is important to understanding native people’s resistance and survival. Finally, students will also explore the ways in which native philosophy and spiritual practices shape native life experience in a society viewed by many native people as being at odds with their beliefs.
Style: 60% Lecture, 20% Discussion. Group work
Grading: 33% mid exam, 33% final exam, 17% reports/papers, 17% class participation.
Exam Format: The exams will be a take home essay.

Amln 3312 American Indian Environmental Issues and Ecological Perspectives
3 credit(s); Meets CLE req of Environment
Instructor: Carroll, Clint
Description: This is a survey course devoted to understanding American Indian / First Nation environmental issues broadly speaking in both the United States and Canada. The class will encourage you to think critically and responsibly about a variety of contemporary debates and political topics, including off-reservation hunting and fishing, the protection of sacred sites on public lands, romanticized stereotypes, food sovereignty, and environmental justice for Native communities. We will also explore the unique perspectives of American Indian / First Nation peoples in the context of traditional ecological knowledge and practices, and how they both contrast with and complement Western science. We will view these topics through the lens of political ecology, an approach to environmental studies that emphasizes the influence of social, political, economic, and legal forces and institutions on environmental issues. As such, the course will stress the importance of understanding historical and contemporary American Indian environmental matters in the contexts of colonial histories and tribal sovereignty.

Amln 3402 American Indians and the Cinema
A-F only, 3 credit(s); Meets CLE req of Arts/Humanities, meets CLE req of Diversity and Soc Justice US
Instructor: Lawson, Angelica
Description: Student may contact the instructor or department for information.

Amln 3872 American Indian History: 1830 to the Present
3 credit(s); Credit will not be granted if credit has been received for: HIST 3872
Instructor: O'Brien, Jean Maria
Description: How did American Indian nations navigate the turbulent nineteenth and twentieth centuries that brought a flood of intruders into their homelands and remake themselves into the vibrant and richly diverse peoples that they are in the present? Beginning with the turmoil surrounding Indian Removal policy in the 1830s, and extending into the present-day struggles of Indian nations to control their own destinies, this course serves as an introduction to American Indian history from 1830 to the present. Touching on such themes such as cultural resistance and and political resurgence in the face of U.S. colonialism, we will focus on the interface between the development of Federal Indian policy and American Indian resistance to U.S. initiatives as a unifying theme, and we will also consider major shifts in the nature of American Indian sovereignty into the present. This course stresses the integrity and adaptability of American Indian societies, and the centrality of ever-emergent American Indian identity to the experiences of Indian people. Particular topics include: Indian Removal and the concept of Indian Territory; Sovereignty: What does it mean? Encounters, east and west; Reservation Life; Pan-Indianism; John Collier and the Indian New Deal; the Indian Claims Commission; Termination and Relocation; Self-Determination and Indian Activism. Readings are designed to complement course session, and include documents, a monograph, a novel, and compiled oral histories of Indian peoples.
Style: 30% Lecture, 20% Film/Video, 30% Discussion, 20% Small Group Activities.
Grading: 40% mid exam, 40% reports/papers, 10% quizzes, 10% class participation.
Exam Format: Essay

Amln 3876 American Indian Education
3 credit(s);
Instructor: Child, Brenda J
Description: Educational processes in American Indian cultures; history of school programs established for tribes by
missionaries and the U.S. and Canadian governments; the importance of boarding schools in shaping the lives, families, communities, and educational expectations of Indian people in the late-19th and early-20th centuries.

Amln 4231 Color of Public Policy: African Americans, American Indians, Asian Americans, & Chicanos in the U.S.

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

Amln 5107 The Structure of Anishinaabemowin, the Ojibwe Language
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: AMIN 3107;
Instructor: Nichols, John David
Description: Student may contact the instructor or department for information.

Amln 5141 American Indian Language Planning
A-F only, 3 credit(s); Credit will not be granted if credit has been received for: AMIN 3141;
Instructor: Nichols, John David
Description: In this course on the maintenance and revitalization of North American indigenous languages, our main objective is to prepare for work in American Indian communities on language issues through language planning activities, language documentation (preparation of grammars, dictionaries, and texts), and education (preparation of pedagogical materials, design of curriculum, and teaching). Among the topics to be covered are: language endangerment as a global issue; overview of American Indian languages; introduction to American Indian language revitalization; language shift and language death; first nation, state/provincial, federal, and international perspectives on language rights and policies; introduction to language planning; language documentation: dictionaries, grammars, and texts; lexical innovation; literacy and orthographic standardization; second language acquisition and teaching; preparing pedagogical materials; teacher training; community activities; proposal writing. Work at the graduate level in this combined courses includes additional reading and a major research paper or project in place of the term paper.
Style: 30% Lecture, 30% Discussion, 10% Small Group Activities, 30% Student Presentation.

Amln 5402 American Indians and the Cinema
A-F only, 3 credit(s); Meets CLE req of Arts/Humanities; meets CLE req of Diversity and Soc Justice US
Instructor: Lawson, Angelica
Description: Student may contact the instructor or department for information.

Amln 5920 Topics in American Indian Studies
A-F only, 3 credit(s), max credits 12, 4 completions allowed;
Instructor: Wilkins, David E
Description: Student may contact the instructor or department for information.

American Sign Language

ASL 1701 American Sign Language I
5 credit(s);
Instructor: STAFF
Description: A study of the fundamentals of American Sign Language: Introduction to learning and understanding American Sign Language, cultural values and rules of behavior of the deaf community in the United States. Includes receptive and expressive readiness activities, sign vocabulary, grammatical structure, receptive and expressive finger spelling, and deaf culture. *Please note: A nominal fee may be required to attend a Deaf cultural and/or American Sign Language related event.
ASL 1702 American Sign Language II  
5 credit(s);  
Instructor: STAFF  
**Description:** Continuation of the study of the fundamentals of American Sign Language: Increased communication skill in American Sign Language, cultural values and behavioral rules of the deaf community in the U.S., receptive and expressive, sign vocabulary, grammatical structure, receptive and expressive finger spelling and aspects of deaf culture. (SP-ASL 1701 or instructor approval) Please note: A nominal fee may be required to attend a Deaf cultural and/or American Sign Language related event.

ASL 3703 American Sign Language III  
5 credit(s);  
Instructor: STAFF  
**Description:** Expanded instruction of American Sign Language receptive and expressive activities, sign vocabulary, grammatical structure, receptive and expressive finger spelling, narrative skills, cultural behaviors, and aspects of deaf culture. Abstract and conversational approach. (SP-ASL 1702 or instructor approval) Please note: A nominal fee may be required to attend a Deaf cultural and/or American Sign Language related event.

ASL 3704 American Sign Language IV  
5 credit(s);  
Instructor: STAFF  
**Description:** Increases the emphasis on more abstract and challenging conversational and narrative range. Includes receptive and expressive readiness activities, sign vocabulary, grammatical structure, receptive and expressive finger spelling, various aspects of deaf culture and cultural behavior rules. (SP-ASL 1703 or instructor approval) Please note: A nominal fee may be required to attend a Deaf cultural and/or American Sign Language related event.

ASL 3705 Cultural Perspectives of Deafness  
3 credit(s);  
Instructor: STAFF  
**Description:** Introduction to the deaf community as a linguistic and cultural minority group. The role of deaf people in the larger society, political activism, laws, access to information, educational philosophies and methods, and communication systems.

ASL 3800 ASL Independent Study: Extended Study  
S-N only, 1-3 credit(s), max credits 6;  
Instructor: Applebee, Shirley D  
**Description:** Student may contact the instructor or department for information.

ASL 3800 ASL Independent Study: Extended Study  
S-N only, 1-3 credit(s), max credits 6;  
Instructor: Buchholz, Sandra Kay  
**Description:** Student may contact the instructor or department for information.

ASL 3800 ASL Independent Study: Extended Study  
S-N only, 1-3 credit(s), max credits 6;  
Instructor: Caven, Janet Kay  
**Description:** Student may contact the instructor or department for information.

ASL 3800 ASL Independent Study: Extended Study  
S-N only, 1-3 credit(s), max credits 6;  
Instructor: Johnson, Rania Jung  
**Description:** Student may contact the instructor or department for information.

ASL 3800 ASL Independent Study: Extended Study  
S-N only, 1-3 credit(s), max credits 6;  
Instructor: Neubarth, Bradley E  
**Description:** Student may contact the instructor or department for information.

ASL 3800 ASL Independent Study: Extended Study  
S-N only, 1-3 credit(s), max credits 6;  
Instructor: Vintinner, Ishaa  
**Description:** Student may contact the instructor or department for information.
American Studies

AmSt 1401 Comparative Genders and Sexualities
3 credit(s); Meets CLE req of Diversity and Soc Justice US
Instructor: Fajardo, Kale Bantigue
Description: Sissies, Sex Workers, and Seamen: How and why do people understand their genders and sexualities differently in diverse cultural contexts and locations? How has capitalism, colonialism, immigration, migration, and globalization impacted genders and sexualities in North America, Asia, the Pacific, Latin America, and Africa? The course stresses studying genders and sexualities within a cross-cultural and comparative (e.g. international/regional) framework, and also emphasizes an intersectional approach: that is, in order to analyze gender and sexuality, we must also think about how race, class, ethnicity, nationality, and geography "inform" how gender and sexuality are embodied, experienced, performed, and/or regulated, and we must also consider histories of capitalism, colonialism, migration, and globalization. Participants will read an eclectic mix of theory, history, literature, and ethnography, and watch diverse international and U.S.-based films in order to better understand and analyze genders and sexualities in different geographic, cultural, and political contexts. The course aims to promote cross-cultural learning about the gender and sexual diversity that is part of the histories and cultures of people who immigrate or reside in the United States.
Style: 35% Lecture, 30% Discussion. Films
Grading: 40% reports/papers, 20% class participation, 40% other evaluation. final paper
Exam Format: No Exam

AmSt 1905 Freshman Seminar: Americans Abroad: Rethink Travel, Culture, Empire
3 credit(s);
Instructor: Powell, Elliott Hunter
Description: Student may contact the instructor or department for information.

AmSt 2011 The United States since September 11
3 credit(s); Meets CLE req of Civic Life and Ethics; meets CLE req of Historical Perspectives
Instructor: May, Elaine Tyler
Description: This course asks the questions: What was the impact of the events of September 11, 2001? What changed within the nation and the world? Was 9/11 a "watershed" moment? To answer this question we will consider the events and developments in the decades prior to 9/11, consider the similarities and differences between the Cold War and the War on Terror, and examine cultural, social and political transformations over several decades before and since 9/11. Requirements include weekly readings, quizzes and in-class assignments, and three exams.

AmSt 3113W America’s Diverse Cultures
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Writing Intensive
Instructor: Vitulli, Eli
Description: Student may contact the instructor or department for information.

AmSt 3113W America’s Diverse Cultures
3 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Writing Intensive
Instructor: Cornell, Akikwe J
Description: Student may contact the instructor or department for information.

AmSt 3114 America in International Perspective
3 credit(s); Meets CLE req of Diversity and Soc Justice US
Instructor: Karjanen, David J
Description: Globalization, National Security/Terrorism, Economic Crises, Migration, the Global Media? How does America address these challenges moving forward in the 21st Century? How have events such as 9/11 and the global impact of the US military affected America’s relationship with the rest of the world? This course examines these questions and provides a range of theoretical approaches to understand America's complex relationship to global forces today. Students taking this course will gain an interdisciplinary, topical approach to understanding these issues, learn about important public policy debates, and how the perception of the United States around the world varies based on politics, culture, and historical factors. Particular focus on the impact of the US Military and US multinational corporations globally, and immigration to the United States.
Style: 50% Lecture, 10% Film/Video, 40% Discussion.
**Grading:** 30% mid exam, 50% reports/papers, 20% written homework.

**Exam Format:** essay

**AmSt 3252W American Popular Culture and Politics: 1900 to 1940**
- 4 credit(s);
- Meets CLE req of Civic Life and Ethics;
- Meets CLE req of Historical Perspectives;
- Meets CLE req of Writing Intensive

**Instructor:** Powell, Elliott Hunter

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

**AmSt 3253W American Popular Culture and Politics: 1940 to the Present**
- 4 credit(s);
- Meets CLE req of Civic Life and Ethics;
- Meets CLE req of Historical Perspectives;
- Meets CLE req of Writing Intensive

**Instructor:** STAFF

**Description:** In this course, we will examine how the United States changed since World War II as a result of domestic and international struggles, exploring the role popular culture played in this transformation. During these years the nation became an international power, altering the ways in which Americans understood their place in the world. A new consumer culture and domestic ideal became linked to American identity and Cold War politics. Within the U.S., challenges to the mainstream took the form of a new counter culture, the assertion of black citizenship, and the rise of feminism, each demanding participation in public life and a redefinition of the hierarchies of the past. In this course, we will look at the ways in which these conflicts at home and abroad have changed the ways Americans think about themselves as citizens and the place of our nation in the world.

**Style:** To be announced instructor will provide specific information

**Grading:** Grading will be determined by to be announced instructor

**AmSt 4101 Gender, Sexuality, and Politics in America**
- 3 credit(s);
- Meets CLE req of Diversity and Soc Justice US;
- Meets CLE req of Historical Perspectives

**Instructor:** Esparza, Rene

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

**AmSt 4961 Proseminar I**
- 3 credit(s);

**Instructor:** Fajardo, Kale Bantigue

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

**AmSt 8201 Historical Foundations of American Studies**
- 3 credit(s);

**Instructor:** Karjanen, David J

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

**AmSt 8231 Cultural Fallout: The Cold War and Its Legacy, Readings**
- 3 credit(s);

**Instructor:** May, Elaine Tyler

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

**AmSt 8801 Dissertation Seminar**
- S-N only, 3 credit(s);

**Instructor:** Prell, Riv-Ellen

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

**AmSt 8920 Topics in American Studies**
- 3 credit(s), max credits 12, 3 completions allowed;

**Instructor:** Child, Brenda J

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

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**Anatomy 6-125 Jackson Hall**

**ANAT 3001 Human Anatomy**
- 3 credit(s);
- [BIOL 1002W or BIOL 1009 or BIOL 2002 or equiv], at least soph credit will not be granted if credit received for: Anat 3001/Anat 3301/Anat 3601/INMD 3001/INMD 3301

Credit will not be granted if credit has been received for: ANAT 3611;
ANAT 4900 Directed Studies in Anatomy
S-N only, 1-6 credit(s), max credits 18, 3 completions allowed;
Instructor: Weinhaus PhD, Anthony James
Description: Student may contact the instructor or department for information.

ANAT 5095 Advanced Problems in Anatomy
A-F only, 1-6 credit(s), max credits 12;
Instructor: Weinhaus PhD, Anthony James
Description: Student may contact the instructor or department for information.

ANAT 5095 Advanced Problems in Anatomy
A-F only, 1-6 credit(s), max credits 12;
Instructor: Cook, Mark S.
Description: Student may contact the instructor or department for information.

ANAT 5150 Human Gross Anatomy
A-F only, 5 credit(s);
Instructor: Weinhaus PhD, Anthony James
Description: Human cadaveric dissection based-on traditional preparation, lab dissection, review sections, radiographic analysis, clinical correlations. Taught by regions. Extremities, torso, head/neck. Assessment by mid-semester/final written & practical examinations. Open to medical students and Graduate/professional students. The course runs concurrently with InMd 6801. Instructor permission required for registration.

ANAT 6050 Dental Gross Anatomy
A-F only, 5 credit(s);
Instructor: Cook, Mark S.
Description: Student may contact the instructor or department for information.

Anesthesiology  B-515 Mayo

Anes 8269 Research in Anesthesia
1 credit(s);
Instructor: Palahniuk, Richard John
Description: Student may contact the instructor or department for information.

Animal Science  305 Haecker Hall

AnSc 1001 Orientation to Animal Science
A-F only, 1 credit(s);
Instructor: Palmer PhD, Melissa L
Description: Student may contact the instructor or department for information.

AnSc 1011 Animals and Society
3 credit(s); Meets CLE req of Civic Life and Ethics
Instructor: Seykora, Anthony James
Description: 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 foods; 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 livestock/food industries and animal welfare groups are an integral part of the course.
Style: 70% Lecture, 30% Discussion.
Grading: 40% mid exam, 20% final exam, 40% reports/papers.
Exam Format: Short answer/true and false/multiple choice

AnSc 1511 Food Animal Products for Consumers
3 credit(s);
Instructor: Rozeboom, Kyle James
**Description:** Introduction to the compositional variation, processing, selection, storage, cookery, palatability, nutritional value, and safety of red meat, poultry, fish, and dairy products.

**AnSc 1701 Historical Influence of the Horse on Society**
3 credit(s); Meets CLE req of Historical Perspectives
Instructor: Hathaway, Marcia
**Description:** This course examines the interactions between horses and humans in diverse global locations beginning thousands of years ago through to the present. We will examine how those interactions, over time affected daily life, religion, warfare, trade, transportation and agriculture; how the powerful and changing relationship between Man and horse has influenced Man’s world today. Moreover, the student will gain the appreciation that understanding the past is necessary in order to understand the present and is dependent on context and that context itself changes.
**Style:** 60% Lecture, 25% Film/Video, 15% Small Group Activities.
**Grading:** 33% exams, 12% quizzes, 25% homework, 20% final project, 10% discussion
**Exam Format:** multiple choice, short answer/true and false

**AnSc 2011 Dairy Cattle Judging**
2 credit(s);
Instructor: Hansen PhD, Leslie Bennett
**Description:** 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.
**Style:** 100% Laboratory. Placings of classes and oral justification of placings.
**Grading:** 100% other evaluation. Placings of classes and oral justification of placings.
**Exam Format:** None

**AnSc 2055 Horse Management**
2 credit(s);
Instructor: Martinson, Krishona Lynn
**Description:** This course is designed to develop theoretical knowledge and practical skills related to horse management and health through a combination of lecture, class discussion, group projects and presentations. Best management practices are discussed and include breeds and uses, behavior, vaccinations, deworming, lameness, poisonous plants, forage management, liability, and facility management. Current topics affecting the horse industry and equine career options are also discussed.

**AnSc 2056 Horse Management Practicum**
2 credit(s);
Instructor: Martinson, Krishona Lynn
**Description:** This course is designed to develop practical skills related to horse management through hands-on exercises, diverse topics and presenters, exposure to research methodology, community service, and group presentations. Students will be responsible for care of horses throughout the semester. Daily chores (including weekends and holidays) will include grooming, hoof picking, feeding, cleaning of waterers, manure removal, barn sweeping, lunging and/or hand walking. The time commitment to complete these tasks will take place outside of the scheduled course time and will require an additional two hours each week. Students will also be expected to complete a work/volunteer day at a local non-profit and will be responsible for conducting an applied research project during the semester. Students will prepare two group presentations, one on careers in the equine industry and the other on the results of the research project. The course will closely follow ANSC 2055: Horse Management, but is offered as an independent course for students currently enrolled in, or who have previously completed, ANSC 2055 Horse Management.

**AnSc 2401 Animal Nutrition**
3 credit(s);
Instructor: Raeth-Knight, Mary Louise
**Description:** Introduction to the principles of animal nutrition discussed on a comparative species basis including classification and function of the various nutrients (carbohydrates, protein, lipids, minerals and vitamins); use of nutrients for body maintenance, growth, egg production, gestation, and lactation; comparative study of the digestive systems of farm animal species; nutrient requirements and allowances for farm animals. The course is targeted for undergraduates seeking an understanding of how feedstuffs are combined to meet the nutrient needs of animals and appreciate the practical application of nutrition to farm animals species.
**Style:** 100% Lecture.
**Grading:** 4 Exams with each exam worth 20% of the grade. Quizzes contribute to 20% of the grade.
AnSc 3011 Statistics for Animal Science
4 credit(s); Credit will not be granted if credit has been received for: STAT 3011;
Instructor: Raeth-Knight, Mary Louise
Description: The purpose of this course is to introduce students to statistics and statistical techniques and to develop students' statistical reasoning and critical thinking skills. Topics include descriptive statistics, probability, sampling and sampling distributions, hypothesis testing, experimental design, linear correlation, linear regression and multiple linear regression. Students will learn how to make sound arguments and decisions based on statistics when reviewing news articles or scientific publications with statistical content. In addition, in lab sessions, students will learn how to explore and draw conclusions from data using a basic statistical software package.

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

AnSc 3221 Animal Breeding
4 credit(s);
Instructor: Seykora, Anthony James
Description: This course is the application of qualitative and quantitative genetic principals to animal breeding. Topics include Mendelian genetics, computation of genetic values from an individual's own performance and relatives, selection indexes, inbreeding and relationships, crossbreeding and development of a breeding program. The laboratory portion of the course is held in the computer lab. Computer simulation programs enhance the learning experience of the students.
Style: 60% Lecture, 15% Discussion, 25% Laboratory.
Grading: 30% mid exam, 15% final exam, 15% special projects, 15% quizzes, 25% problem solving.
Exam Format: true-false, multiple choice, problem solving

AnSc 3301 Human and Animal Physiology
3 credit(s);
Instructor: Palmer PhD, Melissa L
Description: Student may contact the instructor or department for information.

AnSc 3302 Human and Animal Physiology Laboratory
1 credit(s);
Instructor: Palmer PhD, Melissa L
Description: Student may contact the instructor or department for information.

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

AnSc 3403 Companion Animal Hot Button Issues
3 credit(s);
Instructor: Stern, Marshall D
Description: There are various circumstances where people differ in their opinions of how companion animals should be treated, type of care they should receive, and what type of animal can or should be kept as companions. There are many hot button issues that are debated among people, in the media, in the courts at both the federal level and in local communities. Students taking this course will become aware and familiar with various issues that affect Companion Animals in our society. Students will debate the pros and cons of each issue and formalize their own opinions based on information presented by debate teams.
Style: 25% Discussion, 50% Small Group Activities, 25% Student Presentation.
Grading: % of overall grade: Oral presentation and contribution in debate - 25%; Written statement on stance taken in the debate- 25%; Weekly one page responses to debates and participation- 50%

AnSc 3509 Animal Biotechnology
3 credit(s);
Instructor: Palmer PhD, Melissa L
Description: Student may contact the instructor or department for information.
AnSc 3609 Business Planning for Animal Enterprises
2 credit(s);
Instructor: Baidoo PhD, Samuel Kofi
Description: The purpose of the class is to introduce the non-specie components of animal production systems (Information management, operation and personnel management, finances and marketing, nutrient cycling and manure management). In addition, the economic and global forces acting on the animal industries today, including animal well being, will be discussed. AgPlan, a web based farm business planning software, will be used as a template for the course.
Grading: 65% special projects, 25% attendance, 10% other evaluation.

AnSc 3609 Business Planning for Animal Enterprises
2 credit(s);
Instructor: Kollanoor Johny, Anup
Description: The purpose of the class is to introduce the non-specie components of animal production systems (Information management, operation and personnel management, finances and marketing, nutrient cycling and manure management). In addition, the economic and global forces acting on the animal industries today, including animal well being, will be discussed. AgPlan, a web based farm business planning software, will be used as a template for the course.
Grading: 65% special projects, 25% attendance, 10% other evaluation.

AnSc 4009W Undergraduate Research Thesis
A-F only, 1-6 credit(s), max credits 12, 12 completions allowed; Meets CLE req of Writing Intensive
Instructor: STAFF
Description: Student may contact the instructor or department for information.

AnSc 4092 Special Problems in Animal Science
1-4 credit(s), max credits 12, 6 completions allowed;
Instructor: Seykora, Anthony James
Description: Independent study in an area of animal science, under supervision of faculty member.

AnSc 4092 Special Problems in Animal Science
1-4 credit(s), max credits 12, 6 completions allowed;
Instructor: Cox, Ryan Bradley
Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
Instructor: Hansen PhD, Leslie Bennett
Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
Instructor: Seykora, Anthony James
Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
Instructor: Noll PhD, Sally
Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
Instructor: Shurson, Gerald C
Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
Instructor: Mauro PhD, Laura J.
Description: Student may contact the instructor or department for information.
AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Hathaway, Marcia
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: DiCostanzo, Alfredo
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Rozeboom, Kyle James
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Palmer PhD, Melissa L
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Raeth-Knight, Mary Louise
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Stern, Marshall D
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Dayton, William R
   Description: Student may contact the instructor or department for information.

AnSc 4096 Professional Experience Program: Internship
   A-F only, 1-3 credit(s), max credits 6, 4 completions allowed;
   Instructor: Kollanoor Johny, Anup
   Description: Student may contact the instructor or department for information.

AnSc 4099 Special Workshop in Animal Science
   1-4 credit(s), max credits 24, 6 completions allowed;
   Instructor: Seykora, Anthony James
   Description: Student may contact the instructor or department for information.

AnSc 4099 Special Workshop in Animal Science
   1-4 credit(s), max credits 24, 6 completions allowed;
   Instructor: Seykora, Anthony James
   Description: Student may contact the instructor or department for information.

AnSc 4099 Special Workshop in Animal Science
   1-4 credit(s), max credits 24, 6 completions allowed;
   Instructor: DiCostanzo, Alfredo
   Description: Student may contact the instructor or department for information.

AnSc 4401 Swine Nutrition
   3 credit(s);
   Instructor: Shurson, Gerald C
   Description: 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 some 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.

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

**Grading:** 5% reports/papers, 30% problem solving, 65% other evaluation. exams

**Exam Format:** essay, multiple choice, matching, short answer, true/false, problem solving

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**AnSc 4404 Applied Dairy Nutrition**
2 credit(s);
**Instructor:** Raeth-Knight, Mary Louise
**Description:** Student may contact the instructor or department for information.

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**AnSc 4603 Beef Production Systems Management**
4 credit(s);
**Instructor:** DiCostanzo, Alfredo
**Description:** Student may contact the instructor or department for information.

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

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**AnSc 5200 Statistical Genetics and Genomics**
4 credit(s);
**Instructor:** Da, Yang
**Description:** This course is the first course of a 2-course series on gene discovery and genomic selection using genome-wide SNP markers. The focus of this course is data analysis for gene discovery based on the relationships between phenotypes and DNA markers. This course has six components: 1) preparation in statistics, genomics concepts and population genetics; 2) parametric linkage analysis; 3) nonparametric linkage analysis including linkage disequilibrium analysis; 4) analysis for mapping quantitative trait loci (QTL); 5) analysis of genome-wide association studies; and 6) parentage testing and concepts of genomic prediction and selection.

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**AnSc 5625 Nutritional Biochemistry**
3 credit(s);
**Instructor:** Chen, Chi
**Description:** Please see NUTR5625

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**AnSc 5700 Cell Physiology**
A-F only, 4 credit(s);
**Instructor:** Palmer PhD, Melissa L
**Description:** Lectures for this course are offered on-line in the form of detailed lecture notes, reading assignments, problem sets, quizzes and screen-capture videos with one class meeting/week to address questions and to discuss the material. In addition, a discussion section meets once a week where students present and discuss a paper and review article from the literature related to the lectures. Topics covered in the course focus on understanding control mechanisms involved in maintaining homeostasis with respect to critical cell functions including regulation of intracellular pH, cell volume, intracellular electrolyte composition, membrane potential and transport processes, molecular motors and intracellular calcium regulation. Grading is based on two in class examinations, problem sets, weekly quizzes, two paper presentations and a final exam.

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**AnSc 8134 Ethical Conduct of Animal Research**
A-F only, 3 credit(s); Grad student or prof school student or instr consent Credit will not be granted if credit has been received for: CMB 8134;
**Instructor:** Crooker, Brian A
**Description:** The major objectives for this course are designed to meet federal requirements for training in ethical scientific conduct, particularly as it pertains to use of animal subjects. This course provides 1) a framework for understanding the ethical pros and cons for the use of nonhuman animals in research; 2) information about resources and regulations regarding the care and use of nonhuman animals; 3) theoretical bases and practical experiences with regard to the purpose and function of regulatory and oversight bodies; and 4) awareness of issues related to biomedical, clinical, and agricultural research.
AnSc 8194 Research in Animal Genetics
1-3 credit(s), max credits 3, 1 completion allowed;
Instructor: Hansen PhD, Leslie Bennett
Description: Student may contact the instructor or department for information.

AnSc 8311 Animal Bioenergetics
A-F only, 3 credit(s);
Instructor: DiCostanzo, Alfredo
Description: Integrated systems approach to energy metabolism of animals. Application of classical techniques of calorimetry and comparative slaughter, development of systems for expressing energy content of feeds, and techniques for measuring whole body and organ metabolism of specific nutrients.

AnSc 8311 Animal Bioenergetics
A-F only, 3 credit(s);
Instructor: Baidoo PhD, Samuel Kofi
Description: Integrated systems approach to energy metabolism of animals. Application of classical techniques of calorimetry and comparative slaughter, development of systems for expressing energy content of feeds, and techniques for measuring whole body and organ metabolism of specific nutrients.

AnSc 8312 Protein Metabolism
A-F only, 3 credit(s);
Instructor: DiCostanzo, Alfredo
Description: Integrated systems approach to energy metabolism of animals. Application of classical techniques of calorimetry and comparative slaughter, development of systems for expressing energy content of feeds, and techniques for measuring whole body and organ metabolism of specific nutrients.

AnSc 8330 Concepts and Developments in Animal Nutrition
A-F only, 1-2 credit(s), max credits 8, 4 completions allowed;
Instructor: Stern, Marshall D
Description: Student may contact the instructor or department for information.

AnSc 8510 Graduate Seminar
1 credit(s), max credits 12, 12 completions allowed;
Instructor: Dayton, William R
Description: Student may contact the instructor or department for information.

Anthropology

Anth 1001 Human Evolution
4 credit(s); Meets CLE req of Biological Sciences
Instructor: Tostevin, Gilbert B
Description: Humans are unique in the animal world. In this class, we will take a journey through time to examine the evolution of humans, and how natural selection also shapes our own anatomy and behavior. Our goal is to reconstruct the evolutionary history of our lineage, and the anatomy and behavior of our ancestors. The first half of the course is based firmly in the present, and will give you a strong background in evolutionary theory: Natural Selection, basic genetics, principles of behavioral biology and the comparative anatomy of living organisms (primarily monkeys and apes). In the second half of the course we will reconstruct the ecology, diet, anatomy, locomotion, and even the social behavior of the hominids (human ancestors) using the evolutionary principles learned in the first half of the course. Among the "big questions in human evolution" that we will address are: What were the earliest hominins, the australopiths, like? How did climate change affect macro- and micro-evolutionary patterns? How does tool use and culture feed back upon our bodies? How far back in time does modern human behavior date, and what is the evidence for it? When and where did our species, Homo sapiens, in its modern form, originate? While learning the most up-to-date synthesis of paleoanthropology's answers to these questions, students in this course will also learn first-hand how to apply the analytical methods used by paleoanthropologists.
Style: 50% Lecture, 50% Laboratory.
Grading: 35% mid exam, 20% final exam, 35% laboratory evaluation, 10% other evaluation. in-class active-learning assignments
Exam Format: multiple choice

Anth 1001 Human Evolution
4 credit(s); Meets CLE req of Biological Sciences
Instructor: Holt, Kirsten Elise
Description: Student may contact the instructor or department for information.
Anth 1003V Understanding Cultures: Honors  
A-F only, 4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive  
Instructor: Shiva, Amirpouyan  
Description: Student may contact the instructor or department for information.

Anth 1003W Understanding Cultures  
4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive  
Instructor: Kaiser, Sara  
Description: Student may contact the instructor or department for information.

Anth 1003W Understanding Cultures  
4 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences; meets CLE req of Writing Intensive  
Instructor: Shiva, Amirpouyan  
Description: Student may contact the instructor or department for information.

Anth 1902 Freshman Seminar: Race and the Making of Humans  
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US  
Instructor: Ho, Karen  
Description: Student may contact the instructor or department for information.

Anth 1902 Freshman Seminar: Race and the Making of Humans  
A-F only, 3 credit(s); Meets CLE req of Diversity and Soc Justice US  
Instructor: Hayes, Katherine F H  
Description: Student may contact the instructor or department for information.

Anth 3001 Introduction to Archaeology  
4 credit(s); Meets CLE req of Social Sciences  
Instructor: Monnier, Gilliane F  
Description: Archaeology is the study of humans in the past. As such, it encompasses a very broad time span, from early humans in Africa several million years ago, to European settlers in North America 100 years ago. Geographically, it encompasses the entire planet, from the prehistoric Inuit of Alaska to the settlement of Polynesia. Conceptually, archaeology seeks to answer fundamental questions, such as: ?When did humans first become dependent on fire??, ?What factors led to the development of agriculture?? or ?How can we explain the rise and fall of early civilizations?? The study of each of these big questions relies on answering many small questions that are asked in the context of excavations and other archaeological analyses. What underlies all of this diversity is a common theme: archaeology is the study of people in the past, and it differs from History in that it is based upon the study of material remains. The aim of this class is to provide an understanding of the methods and techniques used by archaeologists in investigating these questions. It includes not only hands-on learning of specific analytical techniques, such as faunal and lithic analysis, site survey and excavation strategy, but also focuses on the theoretical approaches that guide the questions we ask and the methods we apply to answer them. This class, therefore, prepares students for more advanced classes in the discipline. However, it also leads to a new way of thinking. This way of thinking is primarily critical and analytical. It leads the practitioner to think about how data is interpreted, and how theoretical frameworks as well as innate biases color these interpretations. Seeking solutions to interpretive problems requires the creative application of multidisciplinary approaches. Therefore the study of archaeology leads to a new way of thinking about and doing science.  
Style: 40% Lecture, 50% Laboratory, 10% Guest Speakers.  
Grading: 40% mid exam, 30% final exam. 30% Lab Grade  
Exam Format: Multiple-choice, short answers, long answers.

Anth 3003 Cultural Anthropology  
3 credit(s); Credit will not be granted if credit has been received for: GLOS 3003;  
Instructor: Dalinghaus, Ursula Monika  
Description: Student may contact the instructor or department for information.

Anth 3004 Great Controversies in Anthropology  
A-F only, 3 credit(s); Meets CLE req of Global Perspectives; meets CLE req of Social Sciences  
Instructor: Gudeman, Stephen Frederick  
Description: Anthropology has been home to famous controversies about human behavior, reason and behavior. We will explore six heated controversies that revolve about topics such as "facts," gender, "truth," poverty and deception.
For example, should the famous Margaret Mead have believed Samoan girls when they talked about their sexual lives, can we make moral judgments about other cultures, and what happens when an anthropologist finds a people repulsive? Whose “voices” should be heard when determining the facts? After examining a controversy, we will divide into two sides, debate the issues and then try to reach a judicious perspective. Student participation will play a central role in our explorations into the seamy edges of anthropology, ourselves and other cultures.

Style: 40% Lecture, 50% Discussion. Films
Grading: 55% mid exam, 35% reports/papers, 10% class participation.
Exam Format: Essay

Anth 3005W Language, Culture, and Power
4 credit(s); Meets CLE req of Diversity and Soc Justice US; meets CLE req of Social Sciences; meets CLE req of Writing Intensive
Instructor: Valentine, David
Description: The “English Only” movement in the U.S. has been attempting for years to have English recognized as the nation's official language.... On a daily basis, people with non-standard accents are asked where they come from.... In New Guinea, languages which have thrived for centuries are dying out... People claim that they can "tell" if someone is gay or straight by the way they speak. While language is a universal feature of human culture, and a vital resource for humans’ ability to describe and relate to the world around them, language is also deeply political in nature. Language, Culture, and Power aims to consider language as a social and political practice from an anthropological perspective which pays close attention to language in its contexts of use. The complex relationship between language, culture, and power raises important questions: how does language shape our view of the world? What relations of power are produced in language use and beliefs about language? How is language used creatively to produce social worlds? What are the politics of using one variety of language over another? What are the politics of writing, and how do debates about spoken language carry over to the written word? This course seeks to explore these and other questions from a variety of perspectives, including language and world view, the use of metaphors in everyday speech, language socialization, language shift, and language and identity. Students will be required to tape-record and transcribe a conversation to be used as the basis for sociolinguistic analysis through the semester. Above all, we will be concerned with the relationships of power that are deeply enmeshed in everyday language use, and consequently, the major themes of this class revolve around the politics of language and language ideologies.
Style: 60% Lecture, 10% Film/Video, 10% Discussion, 20% Laboratory.
Grading: 85% reports/papers, 10% class participation, 5% other evaluation. The "other evaluation" refers to your production of a transcription from a taped conversation
Exam Format: There are no in-class exams for this course

Anth 3023 Culture and Society of India
3 credit(s); Credit will not be granted if credit has been received for: GLOS 3961; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Raheja, Gloria Goodwin
Description: Student may contact the instructor or department for information.

Anth 3027W Archaeology of Prehistoric Europe
3 credit(s); Credit will not be granted if credit has been received for: ANTH 5027W; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive
Instructor: Wells, Peter S
Description: Survey of the archaeology of Europe, from the earliest evidence of human presence about one million years ago to the Roman conquest of about two thousand years ago. Major topics include the development of art in the Early Stone Age, adoption of agriculture and village life during the Neolithic, early metallurgy and long-distance trade during the Bronze Age, and formation of cities in the Iron Age.
Style: 95% Lecture, 5% Discussion.
Grading: 30% mid exam, 25% final exam, 40% reports/papers, 5% quizzes.

Anth 3401 The Human Fossil Record
A-F only, 3 credit(s); 1001 or instr consent Credit will not be granted if credit has been received for: ANTH 5401;
Instructor: Tappen, Martha
Description: Fossil evidence paleoanthropologists use to reconstruct human evolutionary history. Taxonomy, phylogeny, behavior, ecology, tool use, land use, biogeography. Hands-on examination of fossil casts, readings from primary/secondary professional sources.
Style: 25% Lecture, 10% Film/Video, 25% Discussion, 15% Small Group Activities, 25% Student Presentation.

Anth 3402 Zooarchaeology Laboratory
A-F only, 3 credit(s);
Instructor: Tappen, Martha
Mammal bones preserved at archaeological sites are important sources of evidence about past behaviors and environments. This class emphasizes basic laboratory techniques used to identify and analyze mammalian bones to interpret the archaeological record. An important component is learning to identify skeletal elements (humerus, femur, tibia etc.), and taxon (e.g. horse, antelope, sheep, bison, hyena, etc.) when confronted with bones (and bone fragments). Skeletal adaptations and functional anatomy is another focus of the class. Determining ages of death and mortality profiles through tooth eruption and wear patterns are covered. We also cover the practical skills of recognizing and analyzing different kinds of bone modifications- weathering, tool marks, tooth marks, burning, types of bone breakage, etc. The emphasis of the course is on interpreting faunal remains from Stone Age sites. Aspects of the history of human use of animals, including the evolution of hunting techniques, cooking, redistribution and sharing practices and how these are manifest in the zooarchaeological record are discussed. The emphasis is on scientific methodologies such as microscopy, data collection and management, and measurement. You must be able to spend several hours a week in the laboratory working on your own each week.

Style: 25% Lecture, 50% Laboratory, 10% Student Presentation.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Wells, Peter S
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Raheja, Gloria Goodwin
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Gudeman, Stephen Frederick
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Tappen, Martha
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Lipset, David M
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Langford, Jean M
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Taussig, Karen-Sue
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Tostevin, Gilbert B
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A-F only, 1 credit(s);
Instructor: Wilson, Michael Lawrence
Description: Student may contact the instructor or department for information.
Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: Ho,Karen
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: Valentine,David
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: McLean,Stuart J
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: Song,Hoon
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: Beeman,William O
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: McNulty,Kieran P
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: Hayes,Katherine F H
Description: Student may contact the instructor or department for information.

Anth 3913 Senior Project Planning
A­F only, 1 credit(s);
Instructor: McKay,Ramah
Description: Student may contact the instructor or department for information.

Anth 3980 Topics in Anthropology: Critical Approaches to Global Health
3 credit(s), max credits 6;
Instructor: McKay,Ramah
Description: Student may contact the instructor or department for information.

Anth 4001 Advanced Method and Theory in Archaeology
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Monnier,Gilliane F
Description: Anth 4001 Advanced Method and Theory Fall 2014 topic: Experimental Archaeology Experimental archaeology is one of the most important tools in archaeology for conducting Middle-Range Research, which enables us to propose and test models explaining the dynamic behavioral and natural processes which led to the formation of the archaeological record. It involves the replication of ancient technologies, such as flint-knapping and pottery-making, the study of human subsistence practices such as butchery and farming, and the study of the formation of the archaeological record, including taphonomy and preservation. In this class, we will explore the elements of good experimental design and procedure, and each student will carry out an experimental project of their own design, resulting in a poster or final paper. Class time will often involve group work, as students working on related topics will...
discuss their research and give each other feedback. This class is designed for advanced undergraduate students who have taken Anth 3001 and at least one upper-level methods-based course (such as lithic analysis, faunal analysis, or ceramic analysis). Graduate students are welcome, and will be given graduate credit. Please contact the instructor with any questions.

**Style:** 50% Lecture, 30% Discussion, 10% Small Group Activities, 10% Student Presentation.

**Grading:** 60% special projects, 25% written homework, 5% in-class presentation, 10% class participation.

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**Anth 4003W Contemporary Perspectives in Cultural Anthropology**
- A-F only, 3 credit(s); Meets CLE req of Writing Intensive
- Instructor: Raheja, Gloria Goodwin
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Wells, Peter S
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Raheja, Gloria Goodwin
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Gudeman, Stephen Frederick
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Tappen, Martha
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Lipset, David M
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Langford, Jean M
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Taussig, Karen-Sue
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Tostevin, Gilbert B
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Wilson, Michael Lawrence
- **Description:** Student may contact the instructor or department for information.

**Anth 4013 Senior Project**
- 3 credit(s);
- Instructor: Monnier, Gilliane F
Anth 4013 Senior Project
3 credit(s);
Instructor: Ho, Karen
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: Valentine, David
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: McLean, Stuart J
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: Song, Hoon
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: Beeman, William O
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: McNulty, Kieran P
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: Hayes, Katherine F H
Description: Student may contact the instructor or department for information.

Anth 4013 Senior Project
3 credit(s);
Instructor: McKay, Ramah
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project
A-F only, 3 credit(s);
Instructor: Wells, Peter S
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project
A-F only, 3 credit(s);
Instructor: Raheja, Gloria Goodwin
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project
A-F only, 3 credit(s);
Instructor: Gudeman, Stephen Frederick
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project
A-F only, 3 credit(s);
Instructor: Tappen, Martha  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Lipset, David M  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Langford, Jean M  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Taussig, Karen-Sue  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Tostevin, Gilbert B  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Wilson, Michael Lawrence  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Monnier, Gilliane F  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Ho, Karen  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Valentine, David  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: McLean, Stuart J  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Song, Hoon  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project  
A-F only, 3 credit(s);  
Instructor: Beeman, William O  
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project
Anth 4013H Senior Honors Thesis Project
A-F only, 3 credit(s);
Instructor: Hayes,Katherine F H
Description: Student may contact the instructor or department for information.

Anth 4013H Senior Honors Thesis Project
A-F only, 3 credit(s);
Instructor: McKay,Ramah
Description: Student may contact the instructor or department for information.

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

Anth 4035 Ethnographic Research Methods
3 credit(s);
Instructor: McKay,Ramah
Description: Student may contact the instructor or department for information.

Anth 4047 Anthropology of American Culture
3 credit(s);Meets CLE req of Social Sciences
Instructor: Edminster,Avigdor A N
Description: Student may contact the instructor or department for information.

Anth 4053 Economy, Culture, and Critique
3 credit(s);Credit will not be granted if credit has been received for: ANTH 8205;Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Gudeman,Stephen Frederick
Description: Recent, dramatic changes in local and global economies have profoundly affected the lives of millions and have demanded that we rethink our analytical approaches. Drawing on the concept of culture, this course offers a critical perspective on our economic practices and theories. We will analyze and compare economic practices from around the globe, take a fresh look at our own behavior, and reinterpret formal models of economy. Economies and their concepts will be seen as local models which are elaborated and changed by communities. Exploring these models provides a different and new way of understanding material activities and the theories we use to explain them. Using this approach, we will examine critical issues such as the effects that market expansion has on marginalized peoples, on environments, and on our identities in a globalizing world. Rather than emphasizing increased wealth and consumption, many local models provide other meanings of well-being and economic success. Students will draw on these ideas to analyze practices in their everyday life. Course readings consist of articles, but the overall view will be presented in class. Class sessions will consist of lectures, discussion of the readings, conversation and reports about everyday experience of economy, and some films. There will be one exam during the semester and one final as well as the brief assignments. The course qualifies for international perspectives.
Style: 50% Lecture, 40% Discussion. Film
Grading: 40% mid exam, 40% final exam, 20% reports/papers.
Exam Format: Essay

Anth 4075 Cultural Histories of Healing
A-F only, 3 credit(s);Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Langford,Jean M
Description: In this course we examine dynamic interrelationships among healing practices, especially the history and
politics of influence, counter-influence, dissemination and conflict. How are healing practices embroiled in colonial and postcolonial encounters? What are the stakes involved in defining a healing practice as belonging to a certain cultural group? What are the connections between medical perception and historically contingent orientations toward language, social life and the body? To explore such questions we draw on ethnographies and histories of modern Euro-American medicine (biomedicine), classical Asian healing practices (Ayurveda and Chinese medicine), and trance-based or "shamanic" healing practices. We consider the legacy of ancient Greek medicine and its divergence from ancient Chinese medicine, the rise of an anatomically based medicine in Europe; the colonial dissemination of biomedicine; the refashioning of local healing practices in postcolonial contexts; the micropolitics of biomedical knowledge (from dominant metaphors of medicine to the social construction of disease categories); the relationship of medicine to marginality and injustice; and the transnational market in indigenous healing. Emphasis will be on class discussions and and two short papers related to the readings and films. The course will concentrate on learning to think creatively and critically about cultural and historical dimensions of medicine. Designed for juniors and above.

Style: 25% Lecture, 65% Discussion, films
Grading: 70% reports/papers, 30% class participation.

Anth 4329 Primate Ecology and Social Behavior
A-F only, 3 credit(s);
Instructor: Wilson, Michael Lawrence
Description: Student may contact the instructor or department for information.

Anth 4329 Primate Ecology and Social Behavior
A-F only, 3 credit(s);
Instructor: Wilson, Michael Lawrence
Description: Student may contact the instructor or department for information.

Anth 4991 Independent Study
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Wells, Peter S
Description: Student may contact the instructor or department for information.

Anth 4991 Independent Study
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Raheja, Gloria Goodwin
Description: Student may contact the instructor or department for information.

Anth 4991 Independent Study
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Gudeman, Stephen Frederick
Description: Student may contact the instructor or department for information.

Anth 4991 Independent Study
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Tappen, Martha
Description: Student may contact the instructor or department for information.

Anth 4991 Independent Study
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Lipset, David M
Description: Student may contact the instructor or department for information.

Anth 4991 Independent Study
1-6 credit(s), max credits 6, 1 completion allowed;
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1-6 credit(s), max credits 6, 1 completion allowed;
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Anth 4992 Directed Readings
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Wells,Peter S
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Instructor: Raheja,Gloria Goodwin
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  Instructor: McKay, Ramah
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Anth 4994W Directed Research
  1-6 credit(s), max credits 6, 1 completion allowed; Meets CLE req of Writing Intensive
  Instructor: Wells, Peter S
  Description: Student may contact the instructor or department for information.
Anth 4994W Directed Research
1-6 credit(s), max credits 6, 1 completion allowed; Meets CLE req of Writing Intensive
Instructor: Raheja, Gloria Goodwin
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Anth 4994W Directed Research
1-6 credit(s), max credits 6, 1 completion allowed; Meets CLE req of Writing Intensive
Instructor: Gudeman, Stephen Frederick
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Anth 4994W Directed Research
1-6 credit(s), max credits 6, 1 completion allowed; Meets CLE req of Writing Intensive
Instructor: Tappen, Martha
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1-6 credit(s), max credits 6, 1 completion allowed; Meets CLE req of Writing Intensive
Instructor: Lipset, David M
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Instructor: Tostevin, Gilbert B
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Instructor: Wilson, Michael Lawrence
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Instructor: Ho, Karen
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Instructor: Valentine, David
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Anth 4994W Directed Research
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Instructor: McLean, Stuart J
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Anth 4994W Directed Research
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Instructor: Song, Hoon
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Instructor: Beeman, William O
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Instructor: Hayes, Katherine F H
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Anth 4994W Directed Research
1-6 credit(s), max credits 6, 1 completion allowed; Meets CLE req of Writing Intensive
Instructor: McKay, Ramah
Description: Student may contact the instructor or department for information.

Anth 5027W Archaeology of Prehistoric Europe
3 credit(s); Credit will not be granted if credit has been received for: ANTH 3027W; Meets CLE req of Historical Perspectives; meets CLE req of Writing Intensive
Instructor: Wells, Peter S
Description: Survey of the archaeology of Europe, from the earliest evidence of human presence about one million years ago to the Roman conquest of about two thousand years ago. Major topics include the development of art in the Early Stone Age, adoption of agriculture and village life during the Neolithic, early metallurgy and long-distance trade during the Bronze Age, and formation of cities in the Iron Age.
Style: 95% Lecture, 5% Discussion.
Grading: 30% mid exam, 25% final exam, 40% reports/papers, 5% quizzes.

Anth 5269 Analysis of Stone Tool Technology
A-F only, 4 credit(s);
Instructor: Tostevin, Gilbert B
Description: An archaeologist once stated "Love is fickle but stone tools are forever." This course takes this principle to heart in order to teach serious undergraduates and beginning graduate students how archaeologists can learn what it means to be human through the study of our ancestors’ stone tools. From a scientific point of view, as the vast majority of human existence has been spent using stone tools as the primary medium for the interaction between humans and the environment, understanding the causes of change in stone tool variation through time is fundamental to understanding the human past. The goals of this course include 1) a comprehensive survey of known stone tool making processes (known as flintknapping), 2) a critical examination of different traditions of studying stone tools among archaeologists around the world, and 3) practical experience with analyzing an entire stone tool collection from an experimental archaeological site in order to reconstruct the behaviors, from procurement of raw stone to the discard of the exhausted tools, which produced the site and its collection. This course also provides students with hands-on experience in the practice of making stone tools for analysis. This is a practical laboratory class: the successful completion of this course will allow you to perform the tasks required of archaeologists currently working in the Cultural Resource Management industry. Space is limited to 20 students.
Style: 25% Lecture, 45% Laboratory & hands-on flintknapping, 5% films
Grading: 45% other evaluation. laboratory reports; 20% final paper; 25% four in-class quizzes; 10% discussion participation
Exam Format: multiple choice and short answer

Anth 5401 The Human Fossil Record
A-F only, 3 credit(s); 1001 or instr consent Credit will not be granted if credit has been received for: ANTH 3401;
Instructor: Tappen, Martha
Description: Fossil evidence paleoanthropologists use to reconstruct human evolutionary history. Taxonomy,
phylogeny, behavior, ecology, tool use, land use, biogeography. Hands-on examination of fossil casts, readings from primary/secondary professional sources.

**Style:** 25% Lecture, 10% Film/Video, 25% Discussion, 15% Small Group Activities, 25% Student Presentation.

**Anth 5402 Zooarchaeology Laboratory**
A-F only, 3 credit(s);
Instructor: Tappen, Martha
Description: Mammal bones preserved at archaeological sites are an important source of evidence about past behaviors and environments. This class emphasizes basic laboratory techniques to identify and analyze mammalian bones to interpret the archaeological record. An important component is learning to identify skeletal elements (humerus, femur, tibia etc.), and taxon (e.g. horse, antelope, sheep, bison, hyena, etc.) when confronted with bones (and bone fragments). Skeletal adaptations and functional anatomy is another focus of the class. Determining ages of death and mortality profiles through tooth eruption and wear patterns is covered. We also cover the practical skills of recognizing and analyzing different kinds of bone modifications - tool marks, tooth marks, burning, types of bone breakage, etc. The emphasis of the course is on interpreting faunal remains from Stone Age sites. Aspects of the history of human use of animals, including the evolution of hunting techniques, cooking, redistribution and sharing practices and how these are manifest in the zooarchaeological record are discussed. The emphasis will be on scientific methodologies, including microscopy, data collection and management, and measurement. You must be able to spend several hours a week in the laboratory working on your own each week.

**Style:** 25% Lecture, 50% Laboratory, 10% Student Presentation.

**Anth 5442 Archaeology of the British Isles**
A-F only, 3 credit(s);
Instructor: Wells, Peter S
Description: Student may contact the instructor or department for information.

**Anth 5980 Topics in Anthropology: Storytelling in Conversation**
3 credit(s), max credits 6;
Instructor: Sheldon PhD, Amy
Description: This is a hands-on workshop to study the intersection of linguistic, pragmatic, imagistic, and sociolinguistic/interactional features of stories that emerge in everyday spontaneous conversations. Spoken discourse treated as the co-expression of verbal and imagistic embodied meaning. Topics include constructed dialogue, repetition, evaluation, moral stance, discourse markers e.g., 'like', and how the body co-expresses meaning via gesture, gaze, and other body engagement. Format: Instruction in the use of free UMN digital video equipment will be given in Week 1. Each student will record themself and one or two friends in a spontaneous everyday conversation. No prior video recording or tech experience necessary. Tech support available. Throughout the semester students will apply readings to analysis of their data and instructor-provided data. Development of skills in discourse analysis, data transcription, annotation, analysis, oral presentation, and write-up. Course taught in a tech enhanced STSS classroom. Readings include Labov, Ochs, Schegloff, Jefferson, C. Goodwin, Pomerantz, Thompson, Stivers, Sidnell, Bucholtz, Bamberg, Georgakopoulou, McNeill, Streeck et al. Graduate students can explore a topic of interest. Prerequisite: Introduction to Linguistics, or equivalent, or permission of instructor.

**Anth 5980 Topics in Anthropology: Critical Approaches to Global Health**
3 credit(s), max credits 6;
Instructor: McKay, Ramah
Description: Student may contact the instructor or department for information.

**Anth 8004 Foundations of Anthropological Archaeology**
3 credit(s);
Instructor: Hayes, Katherine F H
Description: Student may contact the instructor or department for information.

**Anth 8213 Ecological Anthropology**
3 credit(s); Credit will not be granted if credit has been received for: ANTH 3041;
Instructor: Wilson, Michael Lawrence
Description: Student may contact the instructor or department for information.

**Anth 8510 Topics in Archaeology**
3-9 credit(s), max credits 9, 3 completions allowed;
Instructor: Wells, Peter S
Description: Student may contact the instructor or department for information.
Anth 8810 Topics in Sociocultural Anthropology: History, Memory and Haunting
3-9 credit(s), max credits 9, 3 completions allowed;
Instructor: Langford, Jean M
Description: Student may contact the instructor or department for information.

Anth 8810 Topics in Sociocultural Anthropology: Anthropology of Capitalism
3 credit(s), max credits 9, 3 completions allowed;
Instructor: Ho, Karen
Description: Capitalism seems to have triumphed so completely in the past four decades that the question of how to understand, resist, even undermine, “free markets” and capitalist enterprise is particularly crucial. In this graduate seminar, we will explore some of the diverse strategies that compose an anthropological approach to apprehending capitalism: one that centrally questions the dichotomy of society and culture vs. economy, and one that examines the cosmologies, practices, values, techniques, institutions, flows, and social effects of capitalism. This course is equal parts theory, ethnography, history, and methodology; namely, how multiple approaches and skills are crucial to the analyses of capitalism. We will interrogate key concepts in social scientific approaches to capitalism, from the state to neoliberalism, from finance to postindustrialism. We offer particular scholarly methodologies, case studies, and histories to study capitalism in such a way as to interrogate its contingent conditions of possibility, its embodied formations, and its disruptions and undoings. While a majority of the readings will focus on dominant capitalism in the United States (precisely because the histories, cultural practices, and ideologies of American capitalism have globalizing influence), we will also pay attention to world-making practices and ideologies from multiple global sites.

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Instructor: Raheja, Gloria Goodwin
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Instructor: Gudeman, Stephen Frederick
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1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Tappen, Martha
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Lipset, David M
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Langford, Jean M
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Taussig, Karen Sue
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Tostevin, Gilbert B
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Wilson, Michael Lawrence
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Monnier, Gilliane F
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Ho, Karen
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Valentine, David
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: McLean, Stuart J
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Song, Hoon
Description: Student may contact the instructor or department for information.
Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Beeman, William O
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: McNulty, Kieran P
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: Hayes, Katherine F H
Description: Student may contact the instructor or department for information.

Anth 8994 Directed Research
1-18 credit(s), max credits 18, 1 completion allowed;
Instructor: McKay, Ramah
Description: Student may contact the instructor or department for information.

Apparel Design 240 McNeal Hall

ADes 1221 Apparel Assembly Fundamentals
A-F only, 3 credit(s);
Instructor: STAFF
Description: Introduction to the study of basic clothing structure through analysis of existing garments and application of basic sewing principles for creating new garments. The objectives of the course are: 1) To learn basic clothing assembly skills by studying existing garments and 2) To apply basic sewing fundamentals by creating several basic garments. This class is designed for pre-Clothing Design majors or those students interested in Clothing Design (instructor permission requested). The class is designed for studio learning opportunities with supporting lecture and demonstration. Project work requires an average of 10 hours outside of class.
Style: 25% Lecture, 75% Laboratory.
Grading: 50% final exam, 30% special projects, 20% quizzes.
Exam Format: Multiple choice, true/false, fill in the blank

ADes 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8;
Instructor: LaBat, Karen Louise
Description: Student may contact the instructor or department for information.

ADes 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8;
Instructor: Bye, Elizabeth K
Description: Student may contact the instructor or department for information.

ADes 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8;
Instructor: DeLong, Marilyn R
Description: Student may contact the instructor or department for information.

ADes 2196 Work Experience in Apparel Design
S-N only, 1-4 credit(s), max credits 8;
Instructor: Dunne, Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ADes 2213 Textile Analysis
A-F only, 4 credit(s);
Instructor: LaBat, Karen Louise
Description: Student may contact the instructor or department for information.
ADes 2222 Apparel Design Studio II
  A-F only, 4 credit(s);
  Instructor: Gordon, Linsey A
  Description: Student may contact the instructor or department for information.

ADes 3217 Fashion: Trends and Communication
  A-F only, 3 credit(s);
  Instructor: DeLong, Marilyn R
  Description: Student may contact the instructor or department for information.

ADes 3227 Technical Design Studio
  A-F only, 4 credit(s);
  Instructor: Dunne, Lucy Elizabeth
  Description: Student may contact the instructor or department for information.

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

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

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

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

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

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

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

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

ADes 4196 Internship in Apparel Design
  S-N only, 1-4 credit(s), max credits 4, 1 completion allowed;
  Completion of at least one-half of professional sequence, plan submitted and approved in advance by adviser and internship supervisor, written consent of faculty supervisor, instr consent credit will not be granted if credit already received for: DHA 4196
  Credit will not be granted if credit has been received for: GDES 4196;
Instructor: STAFF  
Description:

ADes 4218W Fashion, Design, and the Global Industry  
A-F only, 3 credit(s), max credits 6; Meets CLE req of Writing Intensive  
Instructor: Wu, Juanjuan  
Description: Student may contact the instructor or department for information.

ADes 4225 Apparel Design Studio V  
A-F only, 4 credit(s);  
Instructor: Strange, Lindsey Ray  
Description: Student may contact the instructor or department for information.

Apparel Studies  240 McNeal Hall

ApSt 5123 Living in a Consumer Society  
A-F only, 3 credit(s);  
Instructor: Kim, Hye-Young  
Description: Materialist consumerism has become one of the defining characteristics of American society. Consumption and the purchase of material possessions are central aspects of who we are, who we dream of being, how we interact with each other, and how we affect the larger environment. The purpose of this course is to provide exposure to a number of selected topics surrounding contemporary consumer society. Students will also have the opportunity to extend their thinking regarding consumer issues/problems to socially responsible business practices. A parallel objective interwoven throughout the course is that students will be provided with the chance to participate in a number of professional career activities including literature integration, scholarly dialogue, and presentations.  
Style: 5% Film/Video, 50% Discussion, 30% Small Group Activities, 5% Student Presentation, 10% Web Based.  
Grading: 30% mid exam, 30% final exam, 10% reports/papers, 15% in-class presentation, 15% class participation.  
Exam Format: Students will take two take-home essay exams assessing understanding and application of material in the course.

ApSt 5193 Directed Study in Apparel Studies  
A-F only, 1-4 credit(s), max credits 8;  
Instructor: STAFF  
Description: Directed study in design, housing and apparel. The topics, course content and readings are developed under the guidance of the supervising faculty member. Typically reserved for graduate students.  
Style: Working with supervising faculty  
Grading: 100% reports/papers. Or may be related to a project

ApSt 5218 Fashion, Design, and the Global Industry  
A-F only, 3 credit(s);  
Instructor: Wu, Juanjuan  
Description: Student may contact the instructor or department for information.

ApSt 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
Instructor: LaBat, Karen Louise  
Description: Student may contact the instructor or department for information.

ApSt 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
Instructor: Bye, Elizabeth K  
Description: Student may contact the instructor or department for information.

ApSt 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;  
Instructor: Johnson PhD, Kim KP  
Description: Student may contact the instructor or department for information.

ApSt 8192 Readings in Apparel Studies  
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
ApSt 8192 Readings in Apparel Studies
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Wu, Juanjuan
Description: Student may contact the instructor or department for information.

ApSt 8192 Readings in Apparel Studies
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Im, Hyunjoo
Description: Student may contact the instructor or department for information.

ApSt 8192 Readings in Apparel Studies
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Kim, Hye-Young
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: LaBat, Karen Louise
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Bye, Elizabeth K
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Johnson PhD, Kim KP
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: DeLong, Marilyn R
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Wu, Juanjuan
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Kim, Hye-Young
Description: Student may contact the instructor or department for information.

ApSt 8193 Directed Study
A-F only, 1-3 credit(s), max credits 8, 8 completions allowed;
Instructor: Dunne, Lucy Elizabeth
Description: Student may contact the instructor or department for information.

ApSt 8222 Plan B Master's Project
Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: Bye, Elizabeth K
Description: Student may contact the instructor or department for information.

Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: Johnson PhD, Kim KP
Description: Student may contact the instructor or department for information.

Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: DeLong, Marilyn R
Description: Student may contact the instructor or department for information.

Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: Wu, Juanjuan
Description: Student may contact the instructor or department for information.

Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: Im, Hyunjoo
Description: Student may contact the instructor or department for information.

Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: Kim, Hye-Young
Description: Student may contact the instructor or department for information.

Abst 8222 Plan B Master’s Project
S-N only, 3 credit(s);
Instructor: Dunne, Lucy Elizabeth
Description: Student may contact the instructor or department for information.

Applied Business 20 Ruttan Hall

Abus 3051 Career Skills in the Professional Environment
2 credit(s);
Instructor: Bonderson, Lori
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, but will also participate as part of a small group. Visit “Class URL” for ODL policy, fee, and financial aid restrictions. Career planning and job search processes appropriate to business/professional careers. Exploring career options: career centers, company research and networking. Resume and cover letter writing. Job interview preparation. Organizational culture, transition from college to work, and job satisfaction.
Style: Online
Grading: See attached syllabus

Abus 3065 Computer Security for the Business Professional
3 credit(s);
Instructor: Estrem, LeAllan James
Description: Essential information for all computer users . . . with no bit/byte savvy required! Track down and repel malicious intruders! Real-world examples and exercises will set you quickly on the road to safe, secure, and ethical computer use. You will learn how to . . . 1 - Configure your computer to be free of viruses and worms. 2 - Know if your computer is infected; eradicate malicious software. 3 - Choose antivirus software and firewalls. 4 - Set up a secure Web page. 5 - Identify fraudulent Web locations; purchase on the Web securely. 6 - Use social networking sites safely.
ABus 3301 Introduction to Quality Management
A-F only, 3 credit(s);
Instructor: Martens, Scott L
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policy, fee, and financial aid information. Principles and concepts of managing quality in the context of a broad range of business applications, with major focus on Six Sigma process improvement methodology and its application to real-world scenarios. Looks at ISO 9001, process control, and performance measurement systems. Explores change management, quantifying opportunities, and cost benefit analysis, all of which are applicable to an array of employment sectors such as service, nonprofit, and government. [NOTE: This course is similar to MM 4201 - Quality Engineering & Process Improvement, which covers principles and historical foundations of total quality, best practices of high-performing quality organizations, role of leadership and strategic planning, statistical process control, control charts, ISO 9001 standards, lean, and Six Sigma, as well as a range of other quality management topics that are applicable to a career as a quality leader or quality engineer in the field of manufacturing. Despite their different emphases, there will be some duplication in content between these two courses, so consider your interests and career direction carefully and then choose one or the other.]

ABus 3510 Communicating Virtually Across Global Teams in Applied Business Settings
A-F only, 4 credit(s);
Instructor: Lowry, Ann E.
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policy, fee, and financial aid information. Collaborative exploration of virtual communication within teams and across cultures and the impact of these technologies on global business and societies. Virtual team functioning and dynamics. Influence of cultural perspective on communication within a group. Cross-cultural communication and its impact on our view of "others". Role of communication technology in cultural development. Ethical and legal implications. Contemporary trends and preparation for managing change in communication technology. Becoming an intercultural change agent.

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

ABus 4013 Legal, Ethical, and Risk Issues for Managers
A-F only, 3 credit(s);
Instructor: Mackay, Deborah
Description: This fully online section is offered through Online and Distance Learning, College of the Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Key legal, ethical and risk frameworks that apply to business activity and civic life. Through a series of case studies, students will identify areas of legal, ethical and risk exposure within their specific industry. Students will develop best practices to minimize legal liability and manage risks, as well as techniques to navigate ethical challenges in work and personal life. The course includes core material for all students as well as individualized modules specific to each industry area. This course is a core, required course in the Construction Management major. For other students, this course is offered as an elective.

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

**Style:** Online  
**Grading:** See attached syllabus

**ABus 4023W Communicating for Results**  
**A-F only, 3 credit(s);** Meets CLE req of Writing Intensive  
**Instructor:** Lowry, Ann E.  
**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Aspects of communication essential for being persuasive and influential. Organizing and presenting ideas effectively, strategies for audience analysis, choosing communication methods, making appropriate use of informal influence methods, and handling dissent. Processes for intercultural communication.

**Style:** Online  
**Grading:** See attached syllabus

**ABus 4041 Dynamics of Leadership**  
**A-F only, 3 credit(s);**  
**Instructor:** Kaiser, David  
**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. In this course, your learning about leadership will occur in two ways: --learning about and understanding leadership strategies, values, characteristics, and styles (the context) --analyzing your own perspectives and beliefs about leadership (your interpretation of the context) This course will give you the knowledge and understanding of the qualities and skills necessary to become a leader within various contexts. It will assist you in working in various organizational environments and understanding the impact of globalization and diversity on achieving organizational directives.

**Grading:** See attached syllabus

**ABus 4101 Accounting and Finance for Managers**  
**A-F only, 3 credit(s);**  
**Instructor:** Vickman, Thomas M  
**Description:** This fully online course is offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid information. You will look at your career from a new perspective, and increase your contribution to the bottom line, whatever your role. Accounting is the language of business, and finance is not very far behind. Learn to talk the talk and make effective financial contributions. You will learn a variety of basic scenarios using accounting and finance models and the knowledge and tools for applying them to a particular business sector: retail, manufacturing, government, hospitality, non-profit, medical, construction.

**ABus 4104 Management and Human Resource Practices**  
**A-F only, 3 credit(s);**  
**Instructor:** Benraouane, Sid Ahmed  
**Description:** This is a fully online course offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Introduces students to a broad overview of human resource practices in organizations as well as basic responsibilities of front line managers. Emphasis is on providing day-to-day leadership including organizing work, motivating employees, delegating, coordinating and achieving results. Human resource practices carried out at the front line include selection induction and training of new employees, employee appraisal, handling grievances and discipline.

**Style:** Online  
**Grading:** See attached syllabus

**ABus 4151 Innovation for Leaders and Organizations**  
**A-F only, 3 credit(s);**  
**Instructor:** Flanders, Gordon R  
**Description:** This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Innovation as a cornerstone of a knowledge economy. History and value of the innovation process, and importance to individuals and organizations. Strategies to foster personal and collaborative innovation. Responsibilities in personal innovation skill-building and leading innovation in organizations.

**Style:** Online
ABus 4515 Strategy and Management for a Sustainable Future
A-F only, 3 credit(s);
Instructor: Hickle, Garth Thomas
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. You work independently, not as part of a student group. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. Explore the meaning and importance of sustainability in business. Characteristics of sustainable environments and their relationship to organizations. Potential economic and strategic enterprise value. Management and leadership to foster and support sustainability. Relationship of sustainable business practices to marketplace trends and realities.
Style: Online
Grading: See attached syllabus

ABus 4571 Introduction to Grant Writing for Health Care and Nonprofit Organizations
A-F only, 3 credit(s);
Instructor: Bahar, Keri L
Description: This is a fully online section offered through Online and Distance Learning (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. This course will provide you with the tools needed to research and write grants in today's funding and political climate. Today, decreasing government funding at the local, regional, state, and federal levels, along with decreasing traditional educational and other social service funding has resulted in an increased need for nonprofit groups to find new or additional financial support. At the same time, government and nonprofit foundations are significantly increasing support for targeted health care research funding. Students will learn the basics of grant writing, including how to identify potential funding sources, and respond to a Request for Proposal by creating a needs assessment, goal statement, budget, and grant funding plans.
Style: Online
Grading: See attached syllabus

ABus 4701 Introduction to Marketing
A-F only, 3 credit(s);
Instructor: Kaufmann, Geoff Laing
Description: This is a fully online section offered through Online and Distance Education (ODL), College of Continuing Education. Visit "Class URL" for ODL policies, including fee and financial aid restrictions. The course begins with the 4 Ps of marketing and the marketing concept and takes you through the fascinating worlds of consumer behavior, market research, the marketing mix, strategic marketing, and many others. The course will introduce you to the terminology of marketing and demonstrate how marketing relates to other functional areas within an organization. The course will try to expose you to the breadth, rather than depth in any one particular area, of marketing. A discussion of the international scope of marketing and ethics in business will also be integrated into the course at every stage.

ABus 4993 Directed Study
1-3 credit(s), max credits 6;
Instructor: STAFF
Description: Specially arranged projects, trips, or field work. Primarily for students in the Applied Business certificate program or Bachelor of Applied Science majors. Non-CCE students must have academic adviser approval and meet course prerequisites. See the Course URL for further information on the Directed Study. See http://cce.umn.edu/documents/DCP/BAS-Student-Faculty-Agreement.doc for the Agreement Form.

Applied Economics 231 Ruttan Hall

ApEc 1001 Orientation to Applied Economics
A-F only, 1 credit(s);
Instructor: Cooper, Gary M
Description: Introduction to the curriculum offerings, liberal education requirements, employment opportunities and the faculty in the Department of Applied Economics. This is a required one-credit course for all undergraduates majoring in Agricultural and Food Business Management or in Applied Economics. Emphasis will be placed on the historical development of the discipline, the areas of specialization, course work expectations and career planning (e.g., student self-assessment and analysis of interests, skills and abilities; discussion of opportunities in the field--study abroad experiences summer jobs, and internships).
Style: 65% Lecture, 35% Discussion.
Grading: 25% special projects, 60% quizzes, 15% other evaluation. Class attendance
Exam Format: The two quizzes will be multiple choice, short answer and choice of short essay.
ApEc 1101 Principles of Microeconomics
4 credit(s); Credit will not be granted if credit has been received for: ECON 1101; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Liu, Donald J.
Description: Economics is the study of choices made under conditions of scarcity and is divided into two major subject matter areas: micro and macro economics. This course, Principles of Microeconomics, is concerned mainly with the economic decisions of individual consumers and producers and how they interact under various market and regulatory environments. The major emphasis in the course will be on economic concepts and their applications to current economic issues and day-to-day business operations.
Style: 60% Lecture, 40% Discussion.
Grading: 25% mid exam, 25% final exam, 15% quizzes, 25% other evaluation. Second midterm; 10% Homework assignments
Exam Format: Multiple choice, short answer problem solving, graphical analysis

ApEc 1101 Principles of Microeconomics
4 credit(s); Credit will not be granted if credit has been received for: ECON 1101; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Okediji, Tade O
Description: Student may contact the instructor or department for information.

ApEc 1101H Principles of Microeconomics
A-F only, 4 credit(s); Honors student, proficiency in high school algebra Credit will not be granted if credit has been received for: APEC 1101; Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Liu, Donald J.
Description: Student may contact the instructor or department for information.

ApEc 1251 Principles of Accounting
3 credit(s); 30 cr; not recommended for premajors in Ag Food Bus Mgmt Credit will not be granted if credit has been received for: ACCT 2050;
Instructor: Nefstead, Ward Elliot
Description: 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.
Style: 60% Lecture, 20% Discussion, 20% Laboratory.
Grading: 40% mid exam, 20% final exam, 20% special projects, 20% class participation.
Exam Format: Multiple choice

ApEc 1905 Topics: Freshman Seminar: The Ordinary Business of Life
A-F only, 2 credit(s), max credits 3, 1 completion allowed;
Instructor: Cooper, Gary M
Description: The "Ordinary Business of Live" - Issues in Business, Government, and Macroeconomics The world of economics is sometimes referred to as the study of the ordinary business of life. In this course we will discover, reflect on, and teach ourselves about a selected group of topics in the fields of business management and economics. While the first quarter of our meetings will be on business and economic history to provide context (the ?Economic Revolution?, the Federal Reserve System, and the role of government in the economy), the second quarter of class will analyze ?macro? issues related to the domestic and world economies (economic growth, the New Economy, and globalization). The third and fourth quarters of our time together will be ?micro? related. We will read and solve The Fatal Equilibrium, a mystery novel that highlights several basic economic principles. We will also investigate the field of business ethics through a series of readings and films. Given the instructor?s experience in student development and academic advising, parts of class discussions throughout the term will be dedicated to helping you make your transition to and navigation of the University a smooth one. Instructor Gary M. Cooper is the Undergraduate Program Coordinator and Academic Advisor in the Department of Applied Economics and the College of Food, Agricultural and Natural Resource Sciences. He has received university teaching and academic advising awards for his work with students and faculty.
Style: 50% Lecture, 50% Discussion.
Grading: 55% special projects, 30% quizzes, 15% class participation.
Exam Format: Multiple choice, short answer and mini essay.

ApEc 1905 Topics: Freshman Seminar: A Sustainable Global Food System
ApEc 3001 Applied Microeconomics: Consumers, Producers, and Markets
4 credit(s);[[1101 or ECON 1101 or 1101H or ECON 1101H], [MATH 1142 or MATH 1271]] or instr consent ; intended for undergrads in [Ag/Food Bus Mgmt, Appl Econ]Credit will not be granted if credit has been received for: ECON 3101;
Instructor: Bellemare,Marc
Description: This course focuses on the application of microeconomic theory to managerial problems. Lectures, readings, problem sets, lab sessions, case studies, and discussions integrate theory and applications. Topics include: an introduction to regression analysis, demand analysis and demand function estimation, cost analysis and cost function estimation, resource allocation decisions, linear programming, market structure, pricing policy, risk analysis, and capital budgeting. This course is the second in a sequence that begins with ApEc 3001, Consumers and Markets. 
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 40% mid exam, 20% final exam, 40% other evaluation. labs and problem set assignments
Exam Format: Problems, short answer, short essay, multiple choice, true/false

ApEc 3002 Applied Microeconomics: Managerial Economics
4 credit(s);
Instructor: Apland,Jeffrey
Description: This course focuses on the application of microeconomic theory to managerial problems. Lectures, readings, problem sets, lab sessions, case studies, and discussions integrate theory and applications. Topics include: an introduction to regression analysis, demand analysis and demand function estimation, cost analysis and cost function estimation, resource allocation decisions, linear programming, market structure, pricing policy, risk analysis, and capital budgeting. This course is the second in a sequence that begins with ApEc 3001, Consumers and Markets. 
Style: 50% Lecture, 10% Discussion, 40% Laboratory.
Grading: 40% mid exam, 20% final exam, 40% other evaluation. labs and problem set assignments
Exam Format: Problems, short answer, short essay, multiple choice, true/false

ApEc 3006 Applied Macroeconomics: Government and the Economy
3 credit(s);[[1102 or Econ 1102], [3001 or Econ 3101]] or instr consent Credit will not be granted if credit has been received for: ECON 3102;
Instructor: Stinson,Thomas F
Description: This course is concerned mainly with aggregate economic activity. Major emphasis is on factors that determine 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.
Style: 100% Lecture.
Grading: 40% mid exam, 50% final exam, 10% problem solving.
Exam Format: essay

ApEc 3007 Applied Macroeconomics: Policy, Trade, and Development
3 credit(s);Meets CLE req of Global Perspectives
Instructor: Smith,Pamela Jane
Description: This class is divided into two parts. The first part focuses on topics in international financial relations including: international transactions, exchange rate determination, the international currency system, national income determination in an open economy, and economic implications of alternative exchange rate regimes. The second part focuses on topics in international trade relations including: why nations trade, the commodity composition of trade, tariff and nontariff barriers to trade, and international and regional trade agreements (e.g., World Trade Organization). This course is designed for advanced undergraduates with background in both micro and macro economic theory. The course format includes problem-based learning and requires active student participation.
Style: 50% Lecture, 50% Discussion.
Grading: 35% mid exam, 35% final exam, 20% in-class presentation, 10% class participation.
Exam Format: Combination of problems, short answer and multiple choice

ApEc 3061 Economic Development in Contemporary Africa
3 credit(s);1101 or ECON 1101Credit will not be granted if credit has been received for: AFRO 3433;Meets CLE req of Global Perspectives; meets CLE req of Social Sciences
Instructor: Okediji,Tade O
Description: Student may contact the instructor or department for information.

ApEc 3071 Agriculture and Economic Growth in Developing Countries
3 credit(s);
Instructor: Senauer,Benjamin H
Description: This course will cover a range of topics on economic development of low-income countries, with a particular focus on the role of agriculture. The course assumes some familiarity with basic microeconomics. Topics to be covered include agricultural issues in developing countries, hunger, population growth, impacts on the environment and the role of policy, as well as others. A major paper on a topic chosen by the students is required.
**ApEc 3411 Commodity Marketing**
3 credit(s);
Instructor: Usset, Edward Charles
Description: Student may contact the instructor or department for information.

**ApEc 3501 Agribusiness Finance**
3 credit(s); [1251 or Acct 2050], 60 cr or instr consent
Credit will not be granted if credit has been received for: FINA 3001;
Instructor: Pederson, Glenn Darwin
Description: Topics include: analysis of financial performance of firms; evaluation of capital investment projects, selection of financial structure, risk management, and introduction to financial markets and instruments. Teaching is primarily accomplished through lecture, class discussion, problem solving exercises, and case problems. Text and lecture notes are the primary reference materials. A standard introductory business finance text is used.
Style: 60% Lecture, 35% Discussion, 5% Laboratory.
Grading: 20% mid exam, 30% final exam, 30% quizzes, 20% other evaluation, decision cases
Exam Format: Multiple choice, problems, and essays.

**ApEc 3551 Entrepreneurship Fundamentals for Value-Added Rural Businesses**
A-F only, 3 credit(s);
Instructor: Nefstead, Ward Elliot
Description: Student may contact the instructor or department for information.

**ApEc 3811 Principles of Farm Management**
3 credit(s);
Instructor: Olson, Kent D
Description: Strategic and operations aspects of farm management; strategic management; budgeting; production and operations planning; quality management and control; financial analysis and management; investment analysis; land purchase and rental; risk management; contract evaluation; and staffing and organization. Students completing the course will be able to: 1) Define the terms and concepts commonly used in farm management; 2) Apply methods to identify issues and analyze strategic options for farms; 3) Apply operations management techniques within a systems perspective of other parts of the farm, and the uncertain economic, climatic, and biological environments in which farms operate; 4) Apply knowledge obtained in previous courses to farm management problems; and 5) Strengthen skills in teamwork, problem solving, interviewing, speaking, and report writing. The target audience is primarily undergraduates in an agricultural major, although graduate students in agricultural fields may benefit from this course as well.
Style: 50% Lecture, 50% Discussion.
Grading: 35% mid exam, 35% final exam, 30% problem solving.
Exam Format: Short answer, short essay, multiple choice, problems.

**ApEc 3991 Independent Study in Applied Economics**
1-4 credit(s), max credits 12, 3 completions allowed;
Instructor: STAFF
Description: Independent study and supervised reading and research on subjects and problems not covered in regularly offered courses. Coursework varies by instructor. No exams usually given.

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

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

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

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

ApEc 4451W Food Marketing Economics

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

**Instructor:** Boland, Michael Aloysius

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

ApEc 4461 Horticultural Marketing

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

**Instructor:** Yue, Chengyan

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

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

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

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

ApEc 5031 Methods of Economic Data Analysis

3 credit(s);

**Instructor:** Mc Cullough, Gerard John

**Description:** 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.

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

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

**Exam Format:** problems

ApEc 5151 Applied Microeconomics: Firm and Household

3 credit(s);

**Instructor:** Cakir, Metin

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

ApEc 5451 Food Marketing Economics

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

**Instructor:** Boland, Michael Aloysius

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

ApEc 5711 U.S. Agricultural and Environmental Policy

3 credit(s);

**Instructor:** Runge, Carlisle Ford

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

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

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

ApEc 5721 Economics of Science and Technology Policy
3 credit(s);
Instructor: Pardey, Philip Gordon
Description: Student may contact the instructor or department for information.

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

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

ApEc 8001 Applied Microeconomic Analysis of Consumer Choice and Consumer Demand
A-F only, 2 credit(s);
Instructor: Glewwe, Paul W
Description: Student may contact the instructor or department for information.

ApEc 8002 Applied Microeconomic Analysis of Production and Choice Under Uncertainty
A-F only, 2 credit(s);
Instructor: Hurley, Terry
Description: Student may contact the instructor or department for information.

ApEc 8211 Econometric Analysis I
4 credit(s);
Instructor: Mc Cullough, Gerard John
Description: This is the first half of a two semester introduction to applied econometrics. One aim is to introduce students to the use of econometric techniques, including the basic methods of classical regression analysis and inference, as well as some methods commonly used when the classical regression model is not appropriate. A second objective is to present students with sufficient econometric theory to thoroughly understand the techniques they are using, and to prepare them for the second semester. The approach is “hands-on”. Students will be expected to analyze a number of economic data sets with programs that they write using MATLAB. Lectures will focus on econometric techniques and theory. Basics of MATLAB programming are covered in section.
Style: 60% Lecture, 20% Discussion, 20% Small Group Activities.
Grading: 30% mid exam, 50% final exam, 20% written homework.

ApEc 8401 Consumer Behavior and Household Economics
A-F only, 2 credit(s);
ApEc 8402 Information and Behavioral Economics
A-F only, 2 credit(s);
Instructor: Yue, Chengyan
Description: Student may contact the instructor or department for information.

ApEc 8602 Economics of the Environment
3 credit(s);
Instructor: Coggins, Jay S
Description: Student may contact the instructor or department for information.

ApEc 8701 International Economic Development, Growth, and Trade
3 credit(s);
Instructor: Roe, Terry Lee
Description: Student may contact the instructor or department for information.

ApEc 8801 Applied Production Theory
A-F only, 3 credit(s);
Instructor: Smith, Rodney B
Description: Student may contact the instructor or department for information.

ApEc 8804 Managerial Economics
3 credit(s);
Instructor: Boland, Michael Aloysius
Description: The objective of this course is to integrate management principles with economics and provide applications to these principles. The course is similar to what you would find in a Harvard Business School course for their PhD in managerial economics. At the conclusion of the class students are expected to be able to: ? Understand relationships between economic and accounting concepts; ? Conduct an industry analysis; ? Understand modern institutional theories of the firm; ? Apply concepts of firm boundaries to agriculture; and ? Understand principles of economic geography
Style: 25% Lecture, 25% Small Group Activities, 25% Student Presentation.

ApEc 8901 Graduate Seminar: MS & PhD
S-N only, 1 credit(s);
Instructor: Pederson, Glenn Darwin
Description: Student may contact the instructor or department for information.

ApEc 8903 PhD Qualifying Paper Seminar I
S-N only, 1 credit(s);
Instructor: Bellemare, Marc
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Pederson, Glenn Darwin
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Pardey, Philip Gordon
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Roe, Terry Lee
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Glewwe, Paul W
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Davis, Elizabeth E
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Polasky, Stephen
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics
1-6 credit(s), max credits 6, 1 completion allowed;
Instructor: Beatty, Timothy KM
Description: Student may contact the instructor or department for information.

ApEc 8991 Advanced Topics in Applied Economics: Topics in Applied Econometrics
2 credit(s), max credits 6, 1 completion allowed;
Instructor: Bellemare, Marc
Description: Student may contact the instructor or department for information.

Applied Professional Studies 20 Ruttan Hall

APS 4072 What Does It Mean to Be Green?
A-F only, 3 credit(s);
Instructor: Burkhouse, Paul Christopher
Description: Student may contact the instructor or department for information.

APS 5201 Career and Job Search Preparation for Graduate Students
S-N only, 1 credit(s);
Instructor: Kubak, Maggie
Description: Job search preparation and career development tools for all graduate students. Focus on non-academi