

# Course Catalog

UMKC 2007-08 Undergraduate Catalog (1.0)

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# Course Catalog

## Accordion Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

## Accounting Courses

**210 Introduction To Financial Accounting (3).** An overview of basic concepts and terminology associated with reporting financial information to parties outside of an organization. Prerequisite: Math 110 or its equivalent and completion of 30 hours

**211 Introduction To Managerial Accounting (3).** An introduction to the use of cost accounting concepts and information in managing the activities of a business. Prerequisite: ACTG 210 or its equivalent

**307 Cost Management (3).** A study of the principles and techniques of cost accounting with emphasis on the structure of cost accounting systems and the processing, summarizing and reporting of cost information. Topics include various issues relevant for manufacturing and service organizations, and introduction of situations that require the application of cost information to managerial settings. Prerequisite: ACTG 211 or its equivalent and Junior standing.

**310 Intermediate Accounting I (3).** A study of theory and application of external corporate reporting. The course covers a variety of financial accounting issues including assets, liabilities, revenue recognition, and accounting change analysis. Publications and pronouncements of the accounting professions are emphasized where applicable. Prerequisites: ACTG 211 or its equivalent and junior standing

**311 Intermediate Accounting II (3).** Continued study of intermediate accounting. The course covers a variety of financial accounting issues including corporate equities, income taxes, pensions, other post-employment benefits, leases, and the statement of cash flows. Publications and pronouncements of the accounting profession are emphasized where applicable. Prerequisites: ACTG 310 or its equivalent.

**350 Accounting Systems And Controls (3).** A survey of computer file methods for accounting data; and, analysis of the administrative, operational, documentation, and security controls over the computer process. Illustrations of computerized accounting and auditing techniques. Prerequisites: MIS 203 or BIS 202, ACTG 307 and ACTG 310

**405 Auditing (3).** A study of how the auditor determines the nature and amount of evidence that should be accumulated considering the unique aspects of an engagement, as well as some idea of how that evidence is evaluated in the context of a financial audit. Prerequisites: ACTG 311 and ACTG 350 or equivalents.

**408 Federal Income Taxation (3).** An examination of the theory and practice of taxation as applied to individuals and businesses. Prerequisite: ACTG 211 or its equivalent.

**409 Advanced Taxation (3).** An examination of the theory, practice, and research methodology of taxation as applied to corporations, partnerships, estates and trusts. Prerequisite: ACTG 408 or equivalent.

**420 Advanced Accounting (3).** A study of the accounting business combinations and the preparation of consolidated financial statements. Prerequisite: Accounting 311 or equivalent

**421 Governmental/Not-For-Profit Accounting (3).** An overview of accounting for state and local governments and not-for-profit entities. Pronouncements of the accounting profession are emphasized where applicable. Prerequisite: Accounting 311 or equivalent

**450 Technology And The Accountant (3).** A study of selected computer, systems, and technology issues that impact contemporary accounting practice and business. The course includes coverage of database management systems and incorporates several hands-on applications. Prerequisite: Accounting 350 or equivalent

**496 Internship (1).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community.

Admission only by prior approval and consent of the instructor. Offered: Every Semester

**497 Special Topics In Accounting (1-3).** Study and research in accounting areas of special student interest, under individual faculty supervision and guidance. Admission only by prior approval and consent of the instructor. Prerequisite: Senior standing.

## American Studies Courses

**250 Introduction To American Studies I (3).** This course is the first half of the year long, required introductory course in American Studies. It is also open to all undergraduates. It focuses on works and authors, from the turn-of-the-century to the present, who are generally considered part of the American Studies canon and emphasizes understanding what America is/was according to these writers. The course is grounded in questions of citizenship, civic responsibility, ethics, character, progress and westward expansion. It will also look at the place of distinct disciplines (political science, English, anthropology, history, sociology, communication studies) in grappling with many of these questions. The course will introduce students to American Studies as an area of study and interdisciplinary scholarship as a methodological tool. Offered: Fall Semester.

**251 Introduction To American Studies II (3).** This course is the second half of the year long, required introductory course in American Studies. It is also open to all undergraduates. Students will be expected to locate themselves within American Studies as an area of study and will be pushed to think critically about the field by looking at the work of scholars in Cultural History, Media Studies, Regional Studies, Black Studies, Public History, Critical Legal Studies, Women's Studies and American Studies in an international context. Students will also be encouraged to place this scholarship in dialogue with that from the first semester in order to look at the boundaries of a field that is constantly changing. Prerequisite: AS250 Offered: Winter Semester.

**300CD American Social Film: Silver Screen And The American Dream (3).** This course will combine American social history and American film history. Using Hollywood entertainment films, the course will look at Hollywood as an indicator of social, political and economic conditions in the United States from the early 1900s to the late 1950s. The main topics are war and the threat of war, poverty and affluence, racial tensions, censorship, and political zealotry. A paper is required and a social history textbook, a film history textbook, a play by Arthur Miller, an a collection of articles constitute core readings. This course is offered as a cluster with Communication Studies 402CD and English 300cd

**301 American Stds: Is/Tutorial: Themes In The American Popular Arts (4).** This course uses the popular arts as an entree to the examination of stereotypes in American life, to a better understanding of challenges to tradition, and to assessing the consequences of conflict that have resulted from cultural pluralism. This is a modified independent study course. Students are exposed to some of America's best-known literature, films and music. Instructional audio tapes and traditional literature about American Culture show the relevance of examples of popular art to broader themes. Prerequisites: Concurrent enrollment in American Studies 302P and 303PW. Offered: On demand.

**302 Survey Of American Studies (4).** This course offers a look at changes and continuities in American life from the era of British colonization to the present. It emphasizes philosophical, scientific and creative ideas that have had lasting effects, changing social structure, the factors that determine lifestyle, and the consequences of the national preoccupation with pluralism and consensus. The course also covers the main features of American political history. Prerequisite: Concurrent enrollment in American Studies 303PW. Offered: On demand.

**303WI Methods & Problems In American Studies (4).** This course examines four topics that are important in American culture; each topic is approached from a different methodological perspective. The topics (problems) are related to cultural resources in the Kansas City area and may change from semester to semester. Methods of problem solving are determined by the topic; however, students should expect to participate in oral history, interpretation of material culture, and traditional archival research and document analysis.

**340 Seminar: Critical Issues In American Culture (3).** An interdisciplinary seminar which will examine various cultural topics relevant to understanding contemporary issues in American society. Students will write individual research papers as well as offer critiques of each other's work. Prerequisites: None. Offered: Every Fall semester.

**341 American Material Culture: Objects And Images (4).** This course will examine American cultural and social history from earliest times to the present, with a special emphasis on the ways artifacts and visual images can provide information and insight about the American experience. Offered: Fall

**342 American Material Culture: Museums (4).** This course will focus on local institutions that use material culture in their presentation of history and the American experience. Offered: Fall

**375 Censorship And Popular Culture In America (3).** The First Amendment to the Constitution states that "Congress shall make no law ... abridging the freedom of speech or the press." The American experience, however, is that controversial books, radio and television programs, motion pictures, and, most recently, the Internet have been subjected to various types of censorship. This course will study the censorship of popular culture in America.

**380 Decade Of Dissent: The 1960S (3).** The social movements and conflicts that developed during the 1960s continue to define American culture in the 1990s. Questions of racial and gender equity, a greater willingness to challenge authority, concerns about the environment, and a new openness about issues of sexuality all developed during the Sixties and remain as arenas of debate today. This course will examine the origins, contexts, and major themes of these social and cultural movements.

**400 Special Studies (1-3).** Pertinent courses from academic units throughout campus may be cross-listed with this course and applied to the major's requirements in American Studies. Prerequisite: None. Offered: Fall, Winter, Summer.

**400A Special Studies (1-3).**

**400B Special Studies (1-3).**

**400CW Cc: Introduction To Women's Studies (3).** What does it mean to grow up a female in America? How does being female influence the body, the mind, identity? This course is an interdisciplinary exploration of the issues that have shaped the lives of American women throughout the life cycle and across the timeline. This course examines the role that culture and society have played in shaping and defining what it means to be an American girl and woman. This course is cross-listed as ANTH 300CL, ANTH 5580CL, SOC 303CW, and SOC 5580CL.

**400J Special Studies (1-3).**

**400L Special Studies (1-3).**

**400M Special Topics (1-3).**

**400P Special Studies (1-3).**

**400S Special Studies (1-3).** Pertinent courses from academic units throughout campus may be cross-listed with this course and applied to the major's requirements in American Studies. Prerequisite: None. Offered: Fall, Winter, Summer.

**400W Special Studies (1-3).**

**430 American Studies Internship (1-6).** Internship opportunities for advanced students involved in community and campus activities. Students must receive approval of the Director or Assistant director of American Studies prior to enrollment. No more than 6 credit hours can be taken. Prerequisites: None. Offered: Fall, Winter, Summer.

**440WI Senior Seminar (3).** Students enrolling in this course will produce an interdisciplinary research paper under the direction of the instructor in cooperation with other American Studies faculty. and peer review with other American Studies students. Prerequisite: American Studies 400 Offered: Fall/Winter/Summer

## Anthropology Courses

**103 Introduction To Cultural Anthropology (3).** An introduction to culture and the basic concepts of anthropology. Topics include kinship, language, and cultural change. Also offered as SOC 103. Offered: Fall/Winter.

**202R Social Organization (3).** This course focuses on the principles of social organization that undergird all human societies: social groups; age and gender differences; the institutions of family, economy, religion and polity; power; community and other units of residence; and social differentiation based on such factors as wealth and/or prestige. The focus of analysis is on the maintenance of social order, social change, and integration of society. Crosslisted with SOC 202R. Prerequisite: Soc 101. Offered: Every semester.

**300CL Cluster Course: Introduction To Women'S Studies (3).**

**300R Special Topics In Anthropology (1-3).** Each time this course is offered, a different area of anthropology, to be announced, will be examined. Also offered as Soc 300R.

**302 Social Stratification (3).** The distribution of power, privileges and prestige are examined in a historical and comparative perspective. The process whereby distribution systems develop, become institutionalized, and become transformed are analyzed. Also offered as Sociology 302. Offered: Fall

**314 Anthropology Of Women (3).** This class explores such global women's issues a cultural diversity, local and international politics, the economy and work, education and other ideologies, etc. We will inquire into women's lives in a variety of societies, during colonial contact, and in the current post-colonial New World Order to understand how the study of women through cultural anthropology informs all areas of life.

**322 Race And Ethnic Relations (3).** The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will

be given to the historical and contemporary contexts of prejudice, discrimination and confrontation. Also offered as Soc 322. Offered: Fall/Winter.

**324 Diversity And You (3).** This course will examine diversity from the perspectives of race, ethnicity, class and gender. Emphasis will be placed on the impact of racism, classism and sexism on interpersonal relationships and strategies to encourage diversity in schools, neighborhoods, and the work place. Students may also enroll in "directed research" in conjunction with his course.

**325 The Imagery Of The American Indian In Film (0-1).** This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present. Also cross listed as sociology 325.

**327 Us Government's Indian Policies: Practices Of A Colonizing Nation (0-1).** This class will convey information about the implementation of US Government policies, from treaty making, establishing reservations, removing, confronting tribes militarily, and abolishing reservations through allotment resulted in consequences detrimental to tribal welfare. The colonization process created ramifications and consequences that Indian people contend with to this day. This class will provide a historical overview of the consequences associated with political, social, and economic processes that divested Indian people of control over their lives and land they originally lived on. Also cross listed as Sociology 323.

**328 Anthropology Of The Body (3).** The Anthropology of the Body is an interdisciplinary and comparative approach to the study of the body as the subject and object of social processes. Anthropological approaches to ritual, performance, reproduction, and healing will provide a framework for classical as well as contemporary explorations of bodily representation and experiences across a variety of cultural contexts. Prerequisite: Introduction to Cultural Anthropology

**329 The Imagery Of The American Indian In Film (0-1).** This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present. Also cross listed as Sociology 325

**331 Urban Anthropology (3).** A course designed to apply anthropological methods to the study of various urban environments. The approach to the subject is comparative, seeking to spell out those features of the urban setting which vary from culture to culture as well as those which are common to all. Also offered as Soc 331.

**339 American Indian Leaders: Past And Present (0-1).** This course will examine the definition of leadership as it relates to American Indian issues. Consideration will be given to the nuances of leadership by examining the social, cultural, economic, and political situations that gave cause for particular individuals to assume roles of leadership. The course will compare and contrast the notions of leadership within American Indian ranks with those practiced by non-Indian leaders. It will trace the evolving nature of leadership within tribal nations and American Indian communities from past to present, as well as looking at Indian leadership roles in time of war and peace. Lives of the major characters of American Indian historical record will be reviewed, such as Geronimo, Crazy Horse, Sitting Bull, Osceola, Tecumseh, Pontiac, Black Hawk, Quannah Parker, and Captain Jack. Also cross listed as Sociology 326

**343 Societies And Cultures Of Latin America (3).** A survey of emerging cultures and societies in Latin America; pre-history and geography; the Mayan, the Aztec and Incan civilizations; contemporary Indian, peasant and urban subcultures; the impact of forces such as migration, urbanization, peasant mobilization, and agrarian reform. Also offered as Soc 343.

**346 Cultures Of The African Diaspora (3).** This course will explore the cultures of African people and their descendants who settled in Europe, the Caribbean or the Americas due primarily to the impact of the Trans-Atlantic trade in human beings. The focus will be comparative, with emphasis on cultural adaptation, kinship systems, music and religion.

**347 The American Indian Image: Stereotype Vs. Reality (0-1).** This class will take a historical, sociological, and cultural approach to review how society at large views American Indians. The course will trace the origin and continued use of American Indian stereotyped views, and assess the

sociological and psychological complications that result when judging Indians solely on stereotyped imagery. The course will review the historical content of American Indian life as portrayed in early plays, films, and newspaper accounts and compare these stereotyped images with the reality of American Indian life by providing a depiction of a series of historical events that will offer a more balanced and accurate consideration for American Indian life past and present. Also cross listed as Sociology 324.

**352 Multicultural Women's Histories In The U.S. (1).** This course offers an introduction to the histories of women in the U.S. from the 17th to the beginning of the 20th century. We will study colonial and US women of Native, Latino, European, African, and Asian descent, their contact with women (and men) of other ethnic groups, the political, economic, and legal changes affecting their lives, and the images they created of themselves and each other. Offered: Every Fall Semester

**353 Women, Class, And Ethnicity In The U.S. (1).** This course focuses on contemporary women's lives and issues such as welfare and immigration, stereotypical imagery, and the pressure to put ethnic and/or class interests before gender concerns. We will study women of Native, African, European, Latin, Asian, and heterogeneous descent and the ethnic, economic, and legal forces shaping their lives. Offered: Every Fall

**354 Women's Lives In The Global Economy (1).** This course explores the realities of women's lives and the work that women contribute to all societies. Using an anthropological approach, we will explore women's productive work in gathering, horticulture, agriculture, and industrialization, women's reproductive work, as well as their work of status enhancement and caring. Highlighting the changes wrought by colonialism, we will also explore women's work, both voluntary and involuntary, in the global economy. Offered: Every Winter

**355 The United Nations' Womens Conferences (1).** This class studies the United Nations' Women's Conferences in Mexico City (1975), Copenhagen (1980), Nairobi (1985), Beijing (1995), and Beijing +5 (2000), their themes, participants, documents, solutions, and consequences. Special attention will be paid to women's human rights. Offered: Every Winter

**356 Cross-Cultural Gender Conceptions (1).** This class surveys the varieties of gender definitions and roles in historical and contemporary human cultures in their association to stratified or equitable access to economic, political, and ideological resources. Topics include the definitions and varieties of human sexes and of human genders, and the multiple ways in which people create sexual and gender intersections and variations. Offered: Every Winter

**414 Feminist Theories (3).** This class introduces the major feminist theories and their primary authors over the last 200 years. The class takes both a historical view (beginning with two millennia of male-centered theories about women) and a conceptual approach (theories are grouped by common ground) and familiarizes the student with both the historical processes that necessitate feminist theories as well as with the breadth and depth of the historically and currently available scholarship. Prerequisite: Introduction to Women's Studies Offered: Winter Semester

**441 Developing Countries (3).** Focuses on issues of economic development, social stratification, political institutions, and political mobilization in societies where colonialism provided the context for their long-term disadvantages in the international economic order. Specific attention is paid to the intersection of the international components that define the options and limits for societal development (e.g., market shifts, international institutions and contracts, foreign policies, and migration) and the distinct social, political and cultural implications of these factors for developing societies. Crosslisted with (ANTH or SOC 441).

## Arabic Courses

**110 Elementary Arabic I (5).** Fundamentals of the language, essentials of conversation, grammar, practical vocabulary, useful phrases, and the ability to understand, read and write simple classical Arabic. Fall.

**120 Elementary Arabic II (5).** Continuation of Arabic 110. Winter. Prerequisite(s): Arabic 110 or equivalent.

**211 Second Year Arabic I (3).** Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisite: Arabic 120. Fall.

**221 Second Year Arabic II (3).** Continuation of Arabic 211. Winter.

**280 Special Intermediate Arabic Topics I (2-4).** Instruction of Arabic on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate Arabic Topics II (2-4).** Continuation of Arabic 280. May not be repeated for credit. As needed.

## Architectural Studies Courses

**110 The Meaning Of Architecture (3).** Architecture is a visual and physical expression of civilization. Significant architecture embodies the inspired use of spaces and forms in such a way as to enrich the lives of humanity. This course will introduce to the student an understanding and appreciation of architecture and our built environment through a broad examination of cultural and aesthetic paradigms. The student will be informed of the historic legacy and value of architecture; how it impacts our society today and our daily lives. This course will employ slides, lectures, and text to familiarize the student with a select group of significant works of architecture of the western world.

**201 Environmental Design Studio I (4).** Foundation studies introducing the principles, processes and vocabularies of environmental design. Instruction in two and three dimensional visualization of objects and spaces. Instruction in the use of instrument-aided drawing, freehand drawing and model building to represent and communicate design ideas at different scales of observation. Prerequisite: Permission of department. Offered: Fall semesters.

**202 Environmental Design Studio II (4).** Continuation of ENV D 201. Prerequisites: ENV D 201 and permission of department. Offered: Winter semester.

**203 Survey Of The Design Professions (1).** Overview of the evolution of the design professions. Comparative study of the roles of the architect, interior architect, interior designer, landscape architect and planner; their working methods, collaborative endeavors, and interaction with consultants and specialists. Description of career paths, educational alternatives, licensure, and professional organizations. One lecture per week for 8 weeks. Offered: Fall

**248 Building Science (3).** Instruction in the materials of building and landscape design; sources, characteristics and uses in design and construction: emphasis on evaluation and selection. Two lectures and one recitation per week. Offered: Fall semester.

**250 History Of The Designed Environment I (3).** This course will present an overview of the developments in architectural, urban, landscape and interior design which have had an impact on the physical environment from ancient times through the medieval up to the gothic period. A central objective of the course is to gain an understanding of why these developments occurred and how the needs and aspirations of a given time were manifested in physical form. Offered: Winter

**251 History Of The Designed Environment II (3).** This course will present an overview of the developments in architectural, urban, landscape and interior design which have had a consequential impact on the physical environment of the Western world from the Italian Renaissance (starting in the 15th century) up to the present day. Offered: Fall

**252 History Of The Designed Environment III (3).** The history of the designed environment from the mid-18th century to the present. Offered: Fall semester

**301 Architectural Design Studio I (5).** Instruction in architectural design focusing on the application of elements and principles of form and space in design. Instruction in the use of techniques for visually representing design ideas. Prerequisites: ENV D 202 Offered: Fall.

**302 Architectural Design Studio II (5).** Instruction in architectural design focusing on the synthesis of basic social, functional, technical, and aesthetic factors in design. Continued instruction in techniques for visually representing ideas. Prerequisite: ENV D 301 Offered: Winter semester.

**348 Structural Systems In Architecture I (3).** Introduction to statics: force analysis and the study of forces in equilibrium; principles of statics as applied to the study of simple elemental structures; the origin, the nature and the action of loads on structural systems. Instruction in the use of statics in the preliminary stages of building design. Prerequisites: Math 110 & Physics 210. Offered: Fall semester.

**413 Environmental Systems In Architecture I (4).** Instruction in bioclimatic and ecological design principles as a basis for architectural and landscape design: emphasis on passive solar heating and cooling and daylighting. Offered: Winter semester.

**449 Structural Systems In Architecture II (3).** Instruction in strength of materials focusing on the behavior of building materials under loading: their ability to resist deformation and failure. Instruction in sizing simple structural elements. Prerequisite: ENV D 348. Offered: Winter semester.

## Art and Art History Courses

**100 Topical Studies In Art History (1-3).** This course consists of a series of lectures on selected subjects of European, American and Oriental art. No prerequisite. Does not meet baccalaureate requirements in fine arts. Does not meet departmental requirements for art or art history majors.

**101 Topical Studies In Studio Art (1-3).** (A,B,C,D) This course provides students with an opportunity to explore offerings in a variety of fine arts media. No prerequisite. Does not meet baccalaureate requirements in the fine arts. Different sections of the course may be repeated.

**101B Topical Studies In Studio Art (1-3).****101G Topical Studies In Studio Art (1-3).**

**105 Introduction To Photography (3).** An introduction to the general practice of photography. This course is intended for non-majors. It does not serve as a prerequisite for advanced art photography courses. The course centers on the basic technical and aesthetic aspects of the medium. A fully adjustable 35mm camera is required. Offered: Every semester

**110 Introduction To The Visual Arts (3).** An introduction to the study of art—especially architecture, sculpture, painting and the graphic arts. Consideration given to purpose and patronage, the visual elements, design and techniques. The meaning of style and expression is studied in the context of the historical background of chief periods of Western civilization. This course meets the college fine arts requirement, but does not count towards the art history requirement for departmental majors. Every semester.

**112 Foundation Drawing (3).** Drawing on the introductory level. Every semester.

**114 Introduction To Computer Multimedia (3).** General techniques and practical application for computer multimedia. This is a course intended for non-majors. It does not serve as a prerequisite for advanced art multimedia courses. Lectures, demonstrations, readings, discussions and application sessions. Fulfills the College of Arts and Sciences computer competency requirement. Offered: Fall and Winter.

**116 Computer Animation (3).** General techniques and practical application for computer animation. This course is intended for both studio majors and non-majors. It does not serve as a prerequisite for any advanced electronic art courses. Lectures, demonstrations, readings, discussions and application sessions. Offered: Summer.

**121 Foundation Design—Two Dimensional (3).** The principles of visual thinking with emphasis on color theory and perception of form and space. Prerequisite: Art 112; concurrent enrollment with Art 112 is with approval. Every semester.

**131 Foundation Design—Three Dimensional (3).** Introductory study in three-dimensional formal principles with emphasis on the aesthetic properties. Prerequisite: Art 112. Every semester.

**203 Introduction To Typography (3).** The format and applied aspects of typography are studied in the context of the design process, involving basic concepts of copyfitting, specification of type, layout, and the use of computer assisted design software. Prerequisites: Art 112, 121, and 131. Offered: FS95

**204 Computer Multimedia I (3).** Introductory level computer multimedia. This course is intended for studio majors. General techniques and practical application of animation, imaging, video, text and sound to multimedia. Lectures, demonstrations, readings, discussions and application sessions. Prerequisite: Studio major or permission of instructor. Offered: Fall and Winter.

**206 Photography I (3).** An introduction to photography as a means of creative self-expression. The course centers on the technical and aesthetic aspects of the medium. Extensive darkroom work will be required. A fully adjustable 35mm camera is required. Prerequisites: Studio major or permission of instructor. Offered: Every semester.

**212 Intermediate Drawing (3).** Continuation of foundation drawing. Emphasis is on gaining technical facility with various drawing mediums and expanding conceptual approaches. Prerequisites: Art 112 Offered: Every Semester

**221 Introductory Painting (3).** Exploration of the visual language in paint. Emphasis on continuing color and design exploration. Prerequisites: Art 112, 121, 212. Every semester.

**224 Introductory Printmaking (3).** An introduction to the process and technique of printmaking centering on metalplate printing. Prerequisites: Art 212, 221. Annually.

**231 Introductory Sculpture (3).** Introductory study of sculptural expression and technique in a variety of materials and processes. Prerequisite: Art 131. Every semester.

**235 Digital Imaging I (3).** This is an introductory course to the computer as a creative tool for the visual artist. Images will be digitized, enhanced and altered. Practical and ethical issues regarding digital image processing are explored. Various input and output options will be discussed.

**244 Visual Tools For The Computer (1-3).** Specific training in using software programs (such as Adobe Photoshop, Adobe Illustrator, Quark Express, etc.) for artists, architects, and graphic designers. Each section deals with a different program and thus the course may be repeated if the student signs up for a different section. Prerequisite: None. Semester Offered: Fall 1996.

**245 Digital Applications (3).** This is an introductory class to software that has graphic and desktop applications. The course will deal principally with digital graphic software that is currently considered the industry standard. The class

will also touch on other software that can have an impact on future computer applications pertaining to applied design. Through a variety of class projects/exercises, students will learn various software and how they interrelate. The class is open to all art students and general students. It will be a prerequisite for studio art students with a graphic design emphasis before entering advanced graphic design classes. (Course replaces visual tools, Art 244 A,B,C which is a series of three one hour classes.) Offered: Fall

**246 Digital Applications (3).** This is an introductory class to software that has graphic and desktop applications. The course will deal principally with digital graphic software that is currently considered the industry standard. The class will also touch on other software that can have an impact on future computer applications pertaining to applied design. Through a variety of class projects/exercises, students will learn various software and how they interrelate. The class is open to all art students and general students. It will be a prerequisite for studio art students with a graphic design emphasis before entering advanced graphic design classes. (Courses replaces visual tools, Art 244 A,B,C, which is a series of three one hour classes). Offered: Fall

**253 History Of The Designed Environment I, Ancient And Medieval (3).** An overview of developments in architectural, urban, land and interior design which have shaped the physical environment of the Western world from prehistory through the period known as the "Romanesque." Emphasis will be given to relationships between institutions, values and needs of different societies and the architectural forms produced by those societies. Prerequisite: None.

**254 History Of The Designed Environment II, Late Medieval To Modern (3).** An overview of developments in architectural, urban, land and interior design which have had an impact on the physical environment of the Western World from the Gothic era to the beginning of the modern era. A central objective of the course is to gain an understanding of why these developments occurred and how the needs and aspirations of a given time were manifested in physical form. Prerequisite: None.

**255 History Of The Designed Environment III, Modern (1750 To Present) (3).** An overview of developments in architectural, urban, land and interior design which have shaped the physical environment of the Western world during the Modern period. Issues to be explored include renewed interest in archaeology during the eighteenth century, shifts in patronage, the impact of new industrial materials and techniques, demands for an array of new building types, and dilemmas of expression throughout the modern era. Our concerns will broaden and become more global in scope when we examine the twentieth century. Prerequisite: None.

**300 Interdisciplinary Studies:Cluster Course Offerings I (3).**

**300CA Cluster Course: Images Of The Human Body In The Renaissance (3).** Focusing on Renaissance conceptions of the human body, this cluster treats the following topics as they are reflected in Renaissance literature, art, astrology, astronomy, biology, anatomy, medicine and politics: A) The dignity of the human body B) Microcosm and macrocosm C) Stranger manifestations: freaks and beasts D) The humors E) Disorders of the human body F) The body politic G) The human body as an object of study. On demand.

**300CD Cc:The African Diaspora In The Arts And Culture (3).** This new cluster course examines aspects of African culture in the Diaspora: Africa, the Caribbean and certain parts of South and North America. Attention will be on charms, painting, sculpture, secret scripts, textiles, as well as religions and spirituality. Understanding African Diaspora culture also involves an analysis of historical and sociological movements, the interpretation of written culture, and the effects of Africa's response to colonialism. The transmission and transformation of African cultures will be addressed by a close investigation of visual and material culture, and the cosmological constructions of African peoples. Methodologies are from the Art History, Literature and Religious Studies. Restrictions: Sophomore or above.

**300CF Cluster Course: African/African American Women And Creativity (3).**

**300CH Cluster Course: Healing And The Arts (3).**

**300CM Cluster Course: Body Images In Medicine And The Arts (3).**

**300CS Cc: Sight And Sound—An Examination Of Perceptual Experience (3).** Faculty from at least two different departments (one of which must be a department in the division of humanities including history) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A. Offered Fall/Winter.

**300CW Cc: Women In A Man's World: Gender, Sex & Status In Clsscl Antq (3).**

**301 Survey Of Western Art: I (3).** A survey of ancient and medieval Western art. The course will begin with the great civilizations of the Mediterranean basin and consider the changes wrought by the introduction of Christianity and



Islam. Study of the medieval era will include Romanesque and Gothic architecture through the 15th century, but will not include the beginnings of panel painting nor of independent sculpture. This course meets the college fine arts requirement. Every semester.

**302 Survey Of Western Art II (3).** A survey of late medieval, Renaissance and Baroque art in Europe. The course will start with the beginnings of panel painting, independent sculpture and the graphic arts in late medieval Europe, trace the coming of the Renaissance in architecture and the figurative arts, and conclude with the Baroque tradition. This course meets the college fine arts requirement. Every semester.

**303 Survey Of Western Art III (3).** A survey of European and American art and architecture, beginning with the origins of the Romantic movement in the 18th century and concluding with contemporary work. This course meets the college Fine Arts requirement. Every semester.

**305 Photography II (3).** An advanced course in which students develop a deeper understanding of personal interests, sensibilities and goals as they relate to producing and appreciating creative photography. Prerequisite: Art 206. Every semester.

**308 Lithography (3).** Study of stone lithographic process. Prerequisite: Art 224. Winter.

**309 Intaglio (3).** Advanced study of intaglio printing processes. Prerequisite: Art 224. Annually.

**310 Computer Multimedia II (3).** Continuation of Art 204, Intermediate level computer multimedia. This course is intended for studio majors. General techniques and practical application sessions. Prerequisites: Art 204 and specific permission of instructor. Offered: Fall and Winter.

**311 Painting I (3).** Painting in oil or acrylic on the intermediate level. Emphasis on continuing color and design exploration. Prerequisite: Art 212, 221. Every semester.

**312 Figure Drawing I (3).** A study of the structure of the human figure with emphasis on the dynamics of figure movement. Prerequisite: Art 212. Annually.

**313 Graphic Design I (3).** Intermediate study of graphic design methodology and techniques, stressing a visual approach to problem solving in design, image making techniques, materials, and production processes standard to the industry. Prerequisites: ART 203, 206, 212, 224 or permission of the instructor. Offered: FS95.

**314 Graphic Design Production (3).** Study of the Mechanical procedures and techniques used for the realization of graphic design production. Prerequisite: Instructor's permission. Winter.\*

**315 Art Of African, Oceanic, And New World Cultures (3).** This historical survey of ethnographic arts will include three world areas: Africa, the Americas, and Oceania. The societies chosen for discussion have a diverse visual arts tradition. The geographical range, the diversity of forms, materials, and functions, of these arts will be demonstrated. Prerequisite: None. Offered: Each winter.

**319 Asian Art (3).** The survey will emphasize the philosophical and cultural context of the arts of India, Southeast Asia, China, Korea and Japan. The course will stress the elements that give an underlying unity to the arts as well as those qualities which distinguish the art of each country as unique. Each Fall.

**322 Advanced Drawing (3).** Further development of technique and content. Emphasis is on forming and clarifying a personal voice. Prerequisite: Art 212 Offered: Annually

**335A Digital Imaging II (3).** This class will strengthen the competence and knowledge of digital imaging techniques. Research, conceptual and verbal abilities within digital image making will be explored. Students will apply new techniques to their personal interests in the studio arts. Prerequisite: Digital Imaging I or permission of instructor.

**353 The Design And Form Of Kansas City (3).** An overview of the historical development of Kansas City with a particular emphasis on the architecture, and the factors influencing what was built, when and where. Prerequisite: Junior standing and a previous course in the history of art or architecture, or permission of the instructor. May not be taken for graduate credit. Offered: Fall

**403 Advanced Typography (3).** A continuation of Art 203, Introduction to Typography, this course looks at more sophisticated typographic use, using advanced layout and design principles, based on both historical and contemporary typographic design practice. In addition, typographic design theory will be studied as a basis for practice and experimentation. The influence of the computer in contemporary typographic design will be studied through lecture and practice. Typography in motion- and time-based media such as web-sites and multimedia presentations will be examined in how these forms of typography differ from 2-dimensional type usage. Prerequisite: Art 413 Offered: On demand

**404 Computer Multimedia III (3).** Continuation of Art 310. Advanced level computer multimedia. This course is intended for studio majors. Lectures, demonstrations, readings, discussions and application sessions. Prerequisites: Art 310 and specific permission of instructor. Offered: Fall and Winter.

**405 Art In Secondary School (3).** An introduction to the special problems, procedures and materials associated with the art curriculum in the public schools. This course meets certification requirements in "Special Methods of Teaching Field." Prerequisites: The equivalent of senior standing in art plus permission of the instructor. Winter semester only.

**406 Advanced Problems In Photography (3).** This course provides students a forum in which the issues and techniques of contemporary photography can be investigated on a rather esoteric level. The format of the course allows for a mutual decision by the instructor and students, dictating which investigations will be pursued during that particular semester. Possible areas of investigation would include, but are not limited to, color photographic theory and practice, non-silver photographic techniques (e.g. Kwikprint, gum bichromate, cyanotype, Van Dyke Brown, etc.), hand coloring techniques, photo-collage, etc. Prerequisite: Art 305, or permission of instructor.

**411 Painting II: Oil/Acrylic (3).** Painting on the advanced level with individual selection of medium and technique. Prerequisite: Art 311. Every semester.

**412 Figure Drawing II (3).** A continuation of Figure Drawing I, Art 312. Drawing on the advanced level with study of the figure in environmental context. Prerequisite: Art 312 or 322. Annually.

**413 Graphic Design II (3).** Advanced study in graphic design methodology and techniques, involving more intense project problem solving. Projects include visual communication strategies of a more advanced nature including newsletter, brochures, annual report, book, magazine and journalism spreads. Prerequisite: ART 313.

**415WI Romanticism (3).** Art of the Romantic Era, principally in Europe, from c. 1790 to c. 1860. Consideration is given to the problems of patronage, criticism and stylistic influences. Prerequisite: Art 303 or permission of instructor and successful completion of the WEPT (effective FS93). Offered: Every other year.

**416WI Later 19Th Century Painting And Sculpture (3).** From Realism through Post-Impressionism. A study of art, principally in Europe, from c. 1850 to c. 1905, with consideration given to factors influencing stylistic changes during this period. May be taken independently of Art 415. Prerequisite: Art 303 or permission of instructor and successful completion of the WEPT (effective FS93). Offered: Fall, odd years.

**421 Painting III: Oil/Acrylic (3).** Continuation of Art 411. Prerequisite: Art 411. Every semester.

**422 Advanced Drawing II (3).** Continuation of Art 322. Prerequisite: Art 312 or 322. Annually.

**423WI Design Seminar (3).** Critical issues in design, design theory and design history/personalities (specific individuals and movements critical to contemporary design practice) from selected readings, slide presentations and invited speakers. A research paper/presentation on a topic evolving from the topics discussed will be required. The course will also address resume and portfolio preparation for design majors. Prerequisites: Art 313, 413 or instructor's permission Offered: On Demand

**424 Early 20Th Century European Painting And Sculpture (3).** A study of European painting and sculpture from c. 1900 to c. 1940. Prerequisite: Art 303 or permission of instructor. Winter, odd years.

**426 Twentieth Century Painting (3).** A study of major artists and stylistic changes in painting, beginning c. 1905. Consideration also given to the role of media and to drawings and prints during this period. Prerequisite: Art 303 or permission of instructor. Offered: On demand.

**427 Twentieth Century Sculpture (3).** A study of major artists and stylistic changes in sculpture, beginning c. 1905. Consideration also given to the role of new materials and techniques. Prerequisite: Art 318. On demand.\*

**428 American Architecture And Urbanism (3).** A survey of architecture and urbanism in the United States. We begin in the early years of the republic, but focus on the period from the Civil War to the present. Topics include the planning and development of major American cities, the creation of the skyscraper as a new commercial type, the evolution and design of the suburb, the emergence of the United States as the center of modernism following World War II and its displacement from that center with the pluralistic trends of the last three decades. Prerequisites: ART 254, 303 or instructor's permission. Offered: Fall.

**429WI American Painting And Sculpture (3).** A study of the history of painting and sculpture, and other figurative arts, from earliest colonial times to the present. Emphasis will be placed on those artists who illuminate the major achievements in American art, and also the ongoing role played by European training and tradition. Prerequisite: Art 303 or permission of the instructor and successful completion of the WEPT (effective FS93). Offered: Fall, even years.

**430 Graphic Design III (3).** Advanced application of graphic design techniques to complex design problems. The course will stress individualized assignments and portfolio preparation. Prerequisite: Art 413 which may be taken concurrently. Offered: WS96

**440WI French Art: Renaissance And Baroque (3).** A history of French art from the time of Louis XII through the Age of Louis XIV, with emphasis on painting and architecture. Prerequisite: Art 302 or permission of instructor and successful completion of the WEPT (effective FS93). Offered: Every other year.

**441WI Northern Baroque: The Age Of Rubens, Rembrandt And Wren (3).** The arts of England and the Low Countries in the 17th and early 18th centuries. Emphasis on painting and the graphic arts in the Spanish and Dutch Netherlands and on architecture in England. Prerequisite: Art 302 or permission of instructor and successful completion of the WEPT (effective FS93). Offered: Every other year.

**442 Art Of Sub-Saharan Africa (3).** This course presents an in-depth study of African Art from the sub-Sahara Region. The first half of the course will explore the major art-producing archaeological cultures of Mali, Nigeria, Chad, and Zimbabwe. The second half will concentrate on the ethnographic present and focuses on the major art-producing cultures of West, Central and Southern Africa. Prerequisite: Art 315 or instructor's permission. Offered: On demand.

**443 Pre-Columbian Art (3).** The course will discuss 2500 years of the arts of ancient Mexico, Guatemala and Peru. Included is the rise of such important cultures as the Olmec, Maya, Aztec and Inca. Equal emphasis will be placed on the development of elaborate ceremonial centers such as Monte Alban and the Teotihuacan as well as the ceramic tradition of the West and East coasts of Mexico and the ceramic textile traditions of pre-Columbian Peru. Prerequisite: Art 315 or permission of instructor. Offered: On demand.

**445 Northern European Art: 15Th And 16Th Centuries (3).** A study of panel painting, sculpture and manuscript illumination in Flanders, France, Germany, and Spain from the Hundred Years' War through the Reformation. Special emphasis will be placed upon the stylistic and iconographic innovations of such major Northern artists as Claus Sluter, Jan van Eyck, Jerome Bosch, Pieter Bruegel, Jean Fouquet and Albrecht Durer. Artistic developments will be presented within the context of changing economic, political, religious and social institutions of the period. Prerequisite: Art 302 or permission of instructor. Offered: On demand.

**447WI Italian Baroque: The Age Of Caravaggio, Bernini And Borromini (3).** Painting, sculpture and architecture in Italy from the creation of the Baroque style in the late 16th century to the beginnings of the Barochetto era. Prerequisite: Art 302 or permission of instructor and successful completion of the WEPT (effective FS93). Offered: Every other year.

**448WI Spanish Art: El Greco To Goya (3).** A history of Spanish art from the later fifteenth century to the Napoleonic invasion. Prerequisite: Art 302 or permission of instructor and successful completion of the WEPT (effective FS93). Offered: Every other year.

**449 Art And Architecture In The Age Of Enlightenment (3).** Painting, sculpture and architecture in France, Italy, England, Spain and Central Europe during the 18th-century. Prerequisite: Art 302 or permission of instructor.

**450 15Th Century Italian Art And Architecture (3).** An examination of the visual arts from the International Style and the Early Renaissance to the beginnings of the High Renaissance. Problems of patronage, artistic theory, the Antique, the role of art in humanist circles, and the effect of religious, political and economic developments on the arts will also be discussed. Prerequisite: Art 110 or 302 or permission of instructor.

**452 Greek Art And Architecture (3).** A survey of Greek sculpture, vase painting, and architecture from the third millennium to the first-century B.C. Emphasis will be placed on the relationship of Minoan and Helladic aesthetics, and the connections between late Helladic and Geometric forms, and the nature and development of the classical and baroque styles. Prerequisite: Art 110 or 301 or permission.

**453 Roman Art And Architecture (3).** The subjects to be included are: wall painting, portraiture, sarcophagi, historical reliefs, and secular and religious architecture. Emphasis will be placed on material from the Late Republic to The Severan period. Prerequisite: Art 301 or permission of instructor.

**454 16Th Century Italian Art And Architecture (3).** The visual arts in Italy from the beginnings of the High Renaissance in the late 15th century through the Late Renaissance and the developing phenomenon of Mannerism. The effect of religious, political and economic developments will be discussed as well as problems of patronage, artistic theory and the role of art in humanist circles. Prerequisite: Art 110 or 302 or permission of instructor.

**455 History Of Photography (3).** A survey of the history of photography as a pictorial art; technical developments and the interaction of photography with other arts will be included. Prerequisite: Art 303 or permission of instructor. Offered: On demand.

**456 The Painting And Sculpture Of China (3).** Jade sculptures of the 14th-century B.C., the terra cotta army of the first emperor of China, Buddhist and secular sculptures from the Han through the Sung dynasties will be covered. The study of Chinese painting will include important new discoveries of paintings on silk dating from the third century B.C.; figure and landscape scrolls, and wall paintings from the fourth through 20th centuries A.D. The masterpieces in the Nelson-Atkins Museum will be examined in detail.

**457 The Painting And Sculpture Of Japan (3).** Clay sculptures from 3,000 B.C., the haniwa sculptures from the fourth century A.D., and Buddhist sculpture from the sixth through the 14th centuries as well as the rich tradition of portrait sculptures will be the focus of the first half of the course. The study of paintings will begin with mural paintings preserved in tombs from the fourth century A.D. Murals in Buddhist temples; painted screen and sliding panels from temple buildings, castles and palaces; Zen painting; paintings and prints of the floating world from the 17th through the 19th centuries will be included. The rich resources in the Nelson-Atkins Museum will receive special attention.

**458 Ceramic Art Of China And Japan (3).** A study of the development of pottery and porcelain arts from the prehistoric pottery of China and Japan to the polychrome glazed porcelains of the 18th century in both countries. Ceramic models and figural sculpture as well as ceramic architectural ornamentation will be included. The Nelson-Atkins Museum collection will be used extensively.

**459 Architecture And Gardens Of China And Japan (3).** Among the topics that will be considered in this course are the development of the pagoda and other temple architecture (Buddhist, Confucian, Taoist and Shinto). Palace and domestic architecture of both countries and the castle architecture of Japan as well as the literati and Zen gardens unique to China and Japan will all be included. Prerequisite: Art 319 or permission of instructor.

**460 Oceanic Arts (3).** The arts of Polynesia, Micronesia and Melanesia express a concept of the world that came to an end for most cultures in the Pacific in the 19th century, certainly by the early 20th century. Spectacular in form and complex in meaning, they range from art forms associated with centralized leadership to those associated with men's societies, esoteric knowledge and status enhancement. Emphasis will be placed on the stylistic relationships between island groupings and the contexts in which the varying arts are employed. Prerequisite: Art 315 or permission of instructor.

**473 Visual Arts Administration (3).** This course on professional arts administration includes assignments in: copyright laws, database management, ethics issues, evaluation design, gallery museum management, grant writing and budgeting, public relations, resume design, tax laws, and website design and management. Students are required to learn relevant computer programs. This course is also open to music and theatre majors. Prerequisite: permission of instructor. Offered: Winter.

**480 Art Since 1945 (3).** An inquiry into the range and purpose of the visual arts since 1945. Taught in a seminar format. Prerequisite: Permission of Department Advisor or instructor of the course. Annually.\*

**482 Scope & Methods Of Art History (3).** A history of the discipline, bibliography, procedures and methods, sources, and cataloging of illustrative materials, and similar topics essential to majors in art history. Prerequisites: Senior standing and permission of instructor. Every Winter.

**485 Technical Colloquium (3).** An advanced study of technical matters pertinent to the production and study of art. Demonstration projects required. Prerequisite: Permission of department. Offered: Every Fall.

**486 Special Topics In Art Education (2-4).** With permission of the department, an advanced student already certified to teach art may pursue special studies in art education on a seminar or tutorial basis. Every semester.

**495 Technical Studies In Art (2-4).** With the permission of the department, an advanced student may pursue a technical investigation on a seminar or individual basis. Every semester.

**495A Technical Studies In Art: Papermaking (2-4).**

**497A Special Studies In Medieval/Renaissance Art (1-6).** With the permission of the department, an advanced student may pursue a selected subject on a seminar or tutorial basis. Acceptable for graduate credit with approval. Every semester.

**497B Special Studies In Baroque/Rococo Art (1-6).** With the permission of the department, an advanced student may pursue a selected subject on a seminar or tutorial basis. Acceptable for graduate credit with approval. Every semester.

**497C Special Studies In 19Th- And 20Th-Century Art (1-6).** With the permission of the department, an advanced student may pursue a selected subject on a seminar or tutorial basis. Acceptable for graduate credit with approval. Every semester.

**497D Special Studies In American Art And Architecture (1-6).** With the permission of the department, an advanced student may pursue a selected subject on a seminar or individual basis. Acceptable for graduate credit with approval. Every semester.

**497E Special Studies In Art Museum (1-6).** Selections from the permanent collections and loan exhibitions in the Nelson-Atkins Museum are studied with attention to historical, aesthetic and technical considerations. Prerequisites: Junior standing and at least nine hours of art history. Every semester.

**497F Special Topics In Asian Art (1-6).** With the permission of the department, an advanced student may pursue a selected subject on a seminar or individual basis. Acceptable for graduate credit with approval. Prerequisite: Art 319 or permission of instructor. Offered: Every semester.

**497H Sp St In The Art Of African, Oceanic, And New World Cultures (1-6).** With permission of the department, an advanced student may pursue a selected subject on a seminar or tutorial basis. Acceptable for graduate credit with approval. Every semester.

**497I Special Studies In Ancient Art (1-6).** An advanced student may pursue a selected subject on seminar or tutorial basis. Acceptable for graduate credit with approval. Prerequisite: Permission of Department. Every semester.

**497J Special Studies In Art (1-6).**

**498A Special Problems In Drawing (1-6).** With permission of the department, an advanced student may pursue selected projects on a group or individual basis. Acceptable for graduate credit with approval. Every semester.

**498B Special Problems In Painting (1-6).** With permission of the department, an advanced student may pursue a selected subject in oil, acrylic, or watercolor painting on a group or individual basis. Acceptable for graduate credit with approval. May be repeated for credit. Every Semester.

**498E Special Problems In Graphic Design (1-6).** With permission of the department, an advanced student may pursue selected projects on a group or individual basis. Acceptable for graduate credit with approval. Every semester.

**498F Special Problems In Casting (1-6).**

**498G Special Problems In Construction (1-6).** With permission of the department, an advanced student may pursue selected projects on a group or individual basis. Acceptable for graduate credit with approval. On demand.

**498I Advanced Problems In Lithography (1-6).** With permission of the department, an advanced student may pursue selected projects on a group or individual basis. Acceptable for graduate credit with approval. Every semester.

**498J Advanced Problems In Intaglio (1-6).** With permission of the department, an advanced student may pursue selected projects on a group or individual basis. Acceptable for graduate credit with approval. Every semester.

**498L Special Problems In Photography (1-6).** With permission of the department, an advanced student may pursue selected projects on a group or individual basis. Acceptable for graduate credit with approval. Every semester.

**498M Special Problems In Electronic/Media (1-6).** With permission of the Department, an advanced student may pursue selected projects in electronic media on a group or individual basis. Acceptable for graduate credit with approval. Prerequisites: Permission of Instructor. Semester Offered: Every.

**498O Special Problems In Graphic Design Internship (1-6).** Advanced students are accepted into the production studios of participating graphic design companies in the metropolitan region as a training experience. Prerequisite: Permission of the department. Offered: WS96

**498Q Special Studies in Art: Internship (1-6).** Advanced students gain invaluable practical experience in a professional setting in the field of art.

**499WI Senior Seminar (3).** Capstone course for studio majors in all media. Meets once a week, three hours. Course covers contemporary issues in the arts, and critical theory. Seminar discussions are based on readings, guest speakers, visiting artists, and students' research. Intention of course is to address theoretical and practical issues in studio art practice, and to prepare students for graduation. Multiple papers, class presentation, and class participation are required. This course is writing intensive. Successful completion of the WEPT test required prior to enrolling. Prerequisite: Senior standing in studio. Offered: Winter Semester Annually

## Art History Courses

**300CJ Cluster Course: Aestheticism In The Arts (3).** This cluster course will deal with aesthetic problems in the arts illustrated with specific examples in music, literature and the visual arts. Winter.

**403 Advanced Typography (3).** A continuation of Art 203, Introduction to Typography, this course looks at more sophisticated typographic use, using advanced layout and design principles, based on both historical and contemporary typographic design practice. In addition, typographic design theory will be studied as a basis for practice and experimentation. The influence of the computer in contemporary typographic design will be studied through lecture and practice. Typography in motion-and time-based media such as websites and multimedia presentations will be examined in how these forms of typography differ from 2-dimensional type usage.

**497 Special Studies in Art History: Internship (1-6).** Advanced art history students gain invaluable practical experience in a professional setting in the field of art.

**497Q Special Studies in Art History: Internship (1-6).** Advanced art history students gain invaluable practical experience in a professional setting in the field of art. Prerequisite: Permission of the department

**498 Special Studies in Art: Internship (1-6).** Advanced students gain invaluable practical experience in a professional setting in the field of art. Prerequisite: Permission of the department.

## Arts and Sciences Courses

**100 Methodologies In Liberal Arts & Sciences: Theories &**

**Application (3).** This three hour course is designed for freshmen and transfer students, to be taken during their first semester of study at UMKC. The curriculum provides students an introduction to the major disciplines and methodologies of the liberal arts and sciences (the humanities, social sciences, and sciences), including sessions on choosing majors and careers. Additional emphases will include learning to use the library, writing and computational skills, oral presentations, cultural diversity, stress management, and study strategies.

**103A Critical Thinking In The Arts And Humanities (3).** This 3 hour course is designed to be taken in conjunction with entry level courses in Arts and Sciences disciplines. The course is designed to enhance students' critical thinking and intellectual capacity, communication skills, and life long learning strategies. Assignments and problem solving activities in the course focus on developing thinking in the disciplines through interactive class sessions, experiments, and problem solving applications. The course is intended to be taught concurrently with a departmental course offered in the Video Supplemental Instruction model. Numerous additional assignments and activities enable students to both succeed in the departmental course and develop transferable cognitive skills at the same time. Credit and grades for the Arts and Sciences 103 course are based on a series of separate assignments specifically designed to enable students to succeed academically in the current and subsequent semesters. A&S 103 assignments would vary according to the discipline course it is linked with, but would include numerous supplemental readings, writing and problem solving activities done individually and in groups/teams. Class attendance and participation are required. Only one of the A&S 103 abc sequence may apply toward graduation requirements. Offered: Every Semester.

**103B Critical Thinking In The Social Sciences (3).** This 3 hour course is designed to be taken in conjunction with entry level courses in Arts and Sciences disciplines. The course is designed to enhance students' critical thinking and intellectual capacity, communication skills, and life long learning strategies. Assignments and problem solving activities in the course focus on developing thinking in the disciplines through interactive class sessions, experiments, and problem solving applications. The course is intended to be taught concurrently with a departmental course offered in the Video Supplemental Instruction model. Numerous additional assignments and activities enable students to both succeed in the departmental course and develop transferable cognitive skills at the same time. Credit and grades for the Arts and Sciences 103 course are based on a series of separate assignments specifically designed to enable students to succeed academically in the current and subsequent semesters. A&S 103 assignments would vary according to the discipline course it is linked with, but would include numerous supplemental readings, writing and problem solving activities done individually and in groups/teams. Class attendance and participation are required. Only one of the A&S 103 abc sequence may apply toward graduation requirements. Offered: Every Semester.

**103C Critical Thinking In The Natural Sciences And Mathematics (3).** This three hour course is designed to be taken in conjunction with entry level courses in Arts & Sciences disciplines. The course is designed to enhance students' critical thinking and intellectual capacity, communication skills, and life long learning strategies. Assignments and problem solving activities in the course focus on developing thinking in the disciplines through interactive class sessions, experiments, and problem solving applications. The course is intended to be taught concurrently with a departmental course offered in the Video Supplemental Instruction model. Numerous additional assignments and activities enable students to both succeed in the departmental course and develop transferable cognitive skills at the same time. Credit and grades for the Arts and Sciences 103 course are based on a series of separate assignments specifically designed to enable students to succeed academically in the current and subsequent semesters. A&S 103 assignments would vary according to the discipline course it is linked with, but would include numerous supplemental readings, writing and problem solving activities done individually and in groups/teams. Class attendance and participation are required. Only one of the A&S 103 abc sequence may apply toward graduation requirements. Offered: Every Semester.

**110 Successful Research: Making Sense Of The World Of Information (1).** Do you know what you don't know? Find out in this course as we learn and discuss many of the common things you are expected to know to succeed in college, including the importance of discovering, understanding, analyzing, and using ideas and information in order to achieve academic success and

genuine learning. You will learn how to ask meaningful questions, understand the structure and content of information resources, evaluate information, and use information resources as learning tools. The course is not geared to any specific discipline, but is core to success in any discipline. The course is open to all students, but is most beneficial when taken early in a student's academic career.

**160 Wine And Civilization (2).** Geography of wine growing; the anatomy and physiology of the grapevine; the sociological forces of alcohol in American culture; wine and classical culture; economic aspects of wine and wine growing.

**200 British Life And Culture (3).** A survey of British history and culture from Roman times to the present day. The course includes such topics as British education, the legal system, the economic system, the Common Market, the development of working class movements such as Trade Union Councils, pictorial arts in Britain, dramatic arts, British music, and contemporary communications. The course is taught with lectures from British authorities in the various fields, discussions with lecturers and local faculty, and field trips to places associated with the weekly lectures. Grade for the course is determined by a combination of papers and exams. Offered under the Missouri-London Program in London. Each semester.

**205 Contemporary Europe (3-6).** An examination of selected political, cultural, economic and social forces shaping Europe today and of how they are related to Europe's past. The course is taught in Europe and employs field trips, lectures by European authorities on the various topics and lectures by the accompanying faculty member. Grades determined by a combination of papers and exams. Summers or Interim.

**206 Contemporary Asia (3-6).** An examination of selected political, cultural, economic and social forces shaping Asia today and of how they are related to Asia's past. The course is taught in Asia and employs field trips, lectures by Asian authorities on the various topics and lectures by the accompanying faculty member. Grades determined by a combination of papers and exams. Summers or Interim.

**207 Contemporary Latin America (3-6).** An examination of selected political, cultural, economic and social forces shaping Latin America today, and of how they are related to Latin America's past. The course is taught in Latin America and employs field trips, lectures by Latin American authorities on the various topics, and lectures by the accompanying faculty member. Grades determined by a combination of papers and exams. Offered: Summers or Interim.

**208 Contemporary World Cultures (3).** An examination of societies and cultures around the world. Students visit one or more countries, where they go on field trips, meet with local experts and students, and learn by studying and doing. Grades are determined by written assignments and practical performance. Offered: Summers or Interim

**210 Cross-Cultural Interaction: Experience & Understanding (3).** This course focuses on the social and cultural context of interactional patterns. U.S. and international students are paired in academic activities to encourage mutual understanding and self-awareness. They will draw on a variety of resources and learning modalities to examine aspects of their own and one another's societies, cultures, religions, and family relations. Making use of intercultural theories, students will reflect upon and explore cultural myths and stereotypes and develop a general understanding of cultural similarities and differences. Offered: Fall, Winter

**240 Analysis Of Medical Terminology (3).** Analyze the structure of medical words and apply this to basic anatomy, physiology and disease processes of the human body, stressing spelling and pronunciation. Offered: Fall and Winter

**300CF Cluster Course: African/African American Women And Creativity (3).**

**304CM Cluster Course: Body Images In Medicine And The Arts (3).** Open to all students, this course focuses on the human body as an object of study in the history and practice of medicine. The class identifies a number of key issues which affect the attitudes that contemporary physicians often have about their patients based upon prevalent attitudes toward the human body in our society. Societal values which shape our ideas about gender, physical appearance, cosmetic surgery, obesity, and genetic abnormalities will be the focus of determining the extent to which these issues may actually affect the education of physicians and choices of medical treatment. The course examines the evolution of these values historically through works of art and recurring themes in literature. The course is interdisciplinary, involving lectures in contemporary medicine, the history of medicine, the history of art, and literature. It satisfies current baccalaureate requirements for interdisciplinary coursework in the humanities. The course will not count toward required courses for the major in art, art history, literature or history. Prerequisite: Junior standing. Offered: Summer 1994.

**305 Ethics In America: The View From The Heartland (3).** This interdisciplinary course brings national and local specialists together through the media of television case study and personal dialogues for an exploration of

the ethical issues facing Americans today. Problems of the corporate world, of academe, of law, of medicine, of media and of the military will be subjected to analysis. With the assistance of experts from the faculty and the community, students will create a paradigm for ethical decision making. Prerequisites: Philosophy 210, 222 or consent of the instructor or Foundations of Social Science. Offered: On demand.

**310 Cross-Cultural Interaction II: Social Relations (3).** This course will match international students with U.S. students to prepare them to interact more effectively in multilingual and/or intercultural settings. Students learn through readings on cultural theory and cultural relations, in-class small group activities, discussions and lectures, how issues of identity, such as age, sexual orientation, and ethnicity; impact cross-cultural interaction. Papers written for this course will help students integrate theory with previous experience, leading to an understanding of oppression in cross-cultural interaction. This course is a continuation of Arts and Sciences 210: Cross-Cultural Interaction: Experience and Understanding, which is a prerequisite. Prerequisite: A & S 210 Offered: Fall, Winter

**334 Introduction To African American Studies (3).** This course provides an introduction to the contexts, theories, and methodologies that undergird African American studies. In addition to substantial time spent covering particular research skills and resources, students will also be introduced to African American culture and the issues related to African American studies from several perspectives: history, literature, sociology, communication studies, and the like. Influences and perspectives from Africa, the Caribbean and South America will also be covered. The course will thus provide a broad background in African American culture and history, an introduction to the methodologies of several disciplines, and discussion of particular contemporary and historical issues such as slavery, segregation and integration, the Civil Rights Movement, Pan-Africanism, Afrocentrism, and current political debates. Prerequisite: None. Offered: Once a year.

**350 Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Offered: Every Semester

**350A Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Offered: Every Semester

**350E Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Offered: Every Semester

**400B Special Readings/Topics (1-6).**

**400C Special Readings/Topics (1-6).**

**400E Special Readings/Topics (1-6).**

**400H Special Readings/Topics (1-3).**

**400J Special Readings/Topics (1-6).**

**400L Special Readings/Topics (1-6).**

**400M Special Readings/Topics (1-6).**

**400N Special Readings/Topics (1-6).**

**400PD Special Readings/Topics (1-6).**

**400SA Special Readings/Topics (1-6).**

**405 Contemporary Europe (3-6).** An in-depth examination of selected political, cultural, economic and social forces shaping Europe today and of how they are related to Europe's past. The course is taught in Europe and employs field trips, lectures by European authorities on the various topics and lectures by the accompanying faculty member. Grades determined by a combination of papers and exams. Prerequisite: Upper level or consent of instructor. Offered: Summers or Interim.

**406 Contemporary Asia (3-6).** An in-depth examination of selected political, cultural, economic and social forces shaping Asia today and of how they are related to Asia's past. The course is taught in Asia and employs field trips, lectures by Asian authorities on the various topics and lectures by the accompanying faculty member. Grades determined by a combination of papers and exams. Prerequisite: Upper level or consent of instructor. Offered: Summers or Interim.

**407 Contemporary Latin America (3-6).** An in-depth examination of selected political, cultural, economic and social forces shaping Latin America today and of how they are related to Latin America's past. The course is taught in Latin America and employs field trips, lectures by Latin American authorities on the various topics and lectures by accompanying faculty member. Grades determined by a combination of papers and exams. Prerequisite: Upper level or consent of instructor. Offered: Summers or Interim.

**419 Natural Sciences For Elementary Schools I (1-5).** Selected topics from the natural sciences, their development and application for teaching in elementary school. Lectures, demonstrations, experiments and discussions.

Intended for teachers in elementary schools. (This course will not be accepted for satisfaction of the Natural Science Area requirement of the Arts and Science general degree requirements).

**420 Literature: A Healing Art (3).** The course provides an opportunity for students to read and learn about literature, both prose and poetry, which demonstrates the importance of life stories in fostering communication between people. Through this study literature will come to be viewed as a healing art: healing physicians, patients and writers alike. Prerequisite: Junior standing. Offered: For one month, twice each year: September, March.

**429 Natural Sciences For Elementary Schools II (2).** Selected topics from the natural sciences, their development and application for teaching in elementary school. Lectures, demonstration, experiments and discussions. Intended for teachers in elementary schools. (This course will not be accepted for satisfaction of the Natural Science Area requirement of the Arts and Science general degree requirements). Fall.

**439 Natural Sciences For Elementary Schools III (2).** Selected topics from the natural sciences, their development and application for teaching in elementary schools. Lectures, demonstrations, experiments and discussions. Intended for teachers in elementary school. (This course will not be accepted for satisfaction of the Natural Science Area requirement of the Arts and Science general degree requirements). Winter.

**452 Images Of The Family In Art And Literature (4).** An application of the skills and knowledge gained from the companion weekend and/or weekday courses in this block by means of instructor-approved and guided independent study projects of the student's own individual or small group choice, focusing on images of the family in literature and art. Each student must select and present four projects (one on each of following faith cultures-Christianity/Judaism, Islam, and one on a topic of their choice) in written, oral and/or audio-visual media. Students meet in groups and individual sessions with the instructors of this block.

**490F Special Topics (1-3).**

**490L Special Topics (1-3).**

**490P Special Topics (1-3).**

**490SA Special Topics (1-3).**

**490W Special Topics (1-3).**

**491 International Internship (1-9).** Students may participate in structured international internships under the joint supervision of employer and faculty member. They must carry out significant professional responsibilities and whatever additional assignments are determined by the faculty supervisor. The number of credit hours varies with the length of the professional experience. Prerequisite: Junior level or above or consent of instructor. Offered: Every semester.

**492 Field Practicum In Aging (3-8).** Students spend 180-480 contact hours in a field placement with supervision in a community agency or organization which services or advocates for older persons, and keep a journal documenting and reflecting on the practicum activities and experiences particularly as they relate to gerontological theory and research. Offered: WS, SS, FS Restrictions: Written consent of instructor required.

## Bassoon Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Bassoon I (2-4).**

**102 Freshman Bassoon II (2-4).**

**201 Sophomore Bassoon I (2-4).**

**202 Sophomore Bassoon II (2-4).**

**301 Junior Bassoon I (2-4).**

**302 Junior Bassoon II (2-4).**

**401 Senior Bassoon I (2-4).**

**402 Senior Bassoon II (2-4).**

## Biology Courses

**102 Biology And Living (3).** Introduction to structural organization and functional processes of living systems. Three hours lecture a week. For non-biology majors only. Does not count toward biology degree.

**102L Biology And Living Laboratory (1).** Exploration of basic biological concepts through laboratory activities requiring data collection and analysis. Four hours laboratory per week. For non-majors only; does not count toward Biology degree requirements. Prerequisite: BIOL 102 or concurrent.

**108 General Biology I (3).** Basic studies in Biology emphasizing the unity and diversity of life. Cellular structure, function, heredity, development, ecology and evolution will be discussed. Three hours lecture per week. Prerequisite(s): High School Biology and Chemistry background highly recommended.

**108L General Biology I Laboratory (1).** Basic laboratory studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, ecology and evolution will be explored. Three hours laboratory per week. Prerequisites or corequisite: Biol 108 Offered: (semester):

**109 General Biology II (3).** Basic studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, regulation of growth and evolution will be discussed. Three hours lecture per week. Prerequisite(s) High School Biology and Chemistry background highly recommended.

**109L General Biology II Laboratory (1).** Basic laboratory studies in Biology emphasizing the unity and diversity of life. Structure, function, heredity, development, regulation of growth and evolution will be explored. Three hours laboratory per week. Prerequisites or corequisite: Biol 109

**202 Cell Biology (3).** Basic concepts of cellular and subcellular structure and function, including supramolecular and organelle structure and organization, bioenergetics, cell growth and cellular communication. Three lectures per week. Prerequisites: BIOL 108, BIOL 109, and CHEM 212, or LSANAT 119/119L, LSMCRB 121 and CHEM 212, OR consent of SBS advisor.

**203 Essential Cell Biology (3).** Foundations of cellular functions. Serves as a bridge between biochemistry and cell and organ physiology for dental students. Applications of fundamental principles to the physiology and pathology of the oral tissues will be stressed.

**206 Genetics (3).** A modern approach integrating molecular and organismal studies of the general genetics of lower and higher organisms. Chromosomal structure and function, gene transmission, heredity, plasticity and population genetics will be discussed. Three hours lecture per week. Prerequisites: BIOL 108, BIOL 109, CHEM 212.

**302 General Ecology (3).** Introduction to the study of populations, communities, and ecosystems by examining the interrelationships between living organisms and their environments. The role of natural selection and evolution will also be considered. Three hours lecture per week. Prerequisites: BIOL 108, BIOL 109, or BIOL 102.

**303 Invertebrate Zoology (3).** Taxonomy, evolutionary relationships, behavior, reproduction, morphology and ecology of the invertebrates. Three hours lecture a week. Prerequisites: BIOL 108 & 109, CHEM 212

**305 Marine And Freshwater Biology (3).** Introduction to the study of marine ecology, deep-sea biology, oceanic nekton, inter-tidal ecology, estuaries, mangroves and salt marshes, as well as ecology of rivers, lakes, streams, wetlands and human impact on aquatic habitats. Three hours lecture per week. Prerequisites: BIOL 108 & 109, CHEM 211.

**308 Vertebrate Zoology (3).** Taxonomy, evolutionary relationships, behavior, reproduction, morphology and ecology of the vertebrates. Three hours lecture a week. Prerequisites: BIOL 108 & 109, CHEM 212

**312WL Laboratory In Developmental Biology, Genetics And Cell Biology (3).** Experimental studies of genetics and development in selected eukaryotic model organisms with an emphasis on the molecular and cellular mechanism of inheritance. Six hours lab and one hour lecture per week. Designation: Writing Intensive. Prerequisites: LSBIOC 341, BIOL 409 corequisite.

**314 Entomology (3).** Anatomy, physiology and identification of insects with emphasis on their environmental adaptations. Three hours lecture per week. Prerequisite: BIOL 109 or LS ANAT 119.

**322 General Parasitology (3).** Parasitic protists, worms and arthropods and the disease states they may induce, will be examined in relationship to human, animal and plants hosts. Three hours lecture per week. Prerequisite(s): BIOL 109 OR LSANAT 119. Offered: Summer

**326 Biological Conservation (2).** Applications of ecology and genetics to the conservation of communities and individual species, including discussion of the Endangered Species Act extinction processes, and the effects of habitat fragmentation. Prerequisites: BIOL 302 recommended: BIOL 108 & 109 required

**327 Biogeography And Biodiversity (2).** Evolutionary and climatological effects on the geographic distribution of organisms, including areas of endemism as well as preservation of biodiversity. Prerequisite(s): BIOL 108 & 109. Offered: Summer

**328 Histology (2).** Animal tissues and their specialization in the organism, with major emphasis on higher organisms. Two hours lecture per week. Prerequisite(s): BIOL 109 or BIOL 118, BIOL 202, CHEM 212.

**328L Laboratory In Histology And Cellular Ultrastructure (3).** Examination of structure/function relationships at the subcellular, cellular and organ levels. Both plants and animals will be examined with emphasis on vertebrates. Five hours lab per week. Prerequisite: BIOL 201, CHEM 212, (corequisite) BIOL 328, consent of SBS Adviser. Offered: Winter

**328WL Laboratory In Histology And Cellular Ultrastructure (3).** Examination of structure/function relationships at the subcellular, cellular and organ levels. Both plants and animals will be examined with emphasis on vertebrates. Four hours lab per week. Designation: Writing Intensive. Prerequisites: BIOL 202, CHEM 212, (co-requisite) BIOL 328, consent of SBS advisor.

**329 Endocrinology (2).** Endocrine regulation and control of growth, development, homeostasis, and reproduction. Includes study of the endocrine organs, their products, and mechanisms of action. Two hours of lecture per week. Prerequisite: BIOL 202 (Physiology background recommended.)

**331 Reproductive Biology (2).** Comprehensive overview of current concepts and knowledge regarding male and female reproductive processes, from gametogenesis through early placentation. Includes structural, developmental, physiological and pathophysiological aspects of reproduction. Two hours of lecture per week. Prerequisite: Recommended LS Anat 118/119, LSPHys 117/316, Biol 202 and/or Biol 329. Offered: Summer

**344 Bioorganic Structure And Biomolecular Function (3).** An introduction to chemical and physical properties of complex biological macromolecules and their functions in living cells. Nomenclature, functional groups, reactions and stereochemistry are among the topics to be emphasized. Prerequisites: BIOL 109 and CHEM 320, CHEM 322. Offered (semester): Winter.

**346 Plant Biology (3).** An integrated study of growth, development, and reproduction of plants, including structure and function of plant tissues and organs, as well as a survey of the recent advances in genetic engineering, plant defense mechanisms, and medical botany and the usefulness of plants to humans. Three hours lecture per week. Prerequisites or corequisite: BIOL 202

**405 Introduction To Evolution (3).** Discussion of the biological processes that produce organic diversity through phyletic change, including variation, mutation, adaptation, population genetics, natural selection, genetic drift, gene flow, and macroevolution. Prerequisite: Biology 206.

**409 Developmental Biology (3).** Principles of development and differentiation of structure during embryology in animals. Molecular, cellular and organismal level concepts and mechanisms will be considered. Three hours lecture per week. Prerequisites: BIOL 202, BIOL 206.

**427 Plant Physiology (3).** A study of the biochemical and physical processes involved in plant function at the molecular and cellular level and the mechanisms by which plants respond to environmental challenges. Three hours lecture per week. Prerequisites: BIOL 202, BIOL 206 AND LSBIOC 341

**442 Neurobiology (3).** Neurobiology will consist of the presentation of theory and data concerning cellular and molecular fundamentals of the nervous system, synaptic mechanisms, sensory-motor systems, and higher-order functions of the nervous system. Three hours lecture per week. Prerequisite: LSPHYS 316, LSMCR 341, or permission of instructor.

**498WI Critical Analysis Of Biological Issues (3).** Reading and Analysis of scientific literature, including original papers, on a topic of broad biological interest. Critical discussion of experimental methods and results. Writing of scientific reviews and a term paper. Taking the MFAT test is a requirement of this course, and the course satisfies the general education synthesis requirement. Three hours per week of lecture and literature research. Prerequisite(s): Chem 320 or 322, completion of core requirements, consent of SBS adviser. Designation: Writing Intensive.

## Business Administration Courses

**327 International Banking Travel Seminar (1-6).** Students will travel outside the United States to observe the environment and conduct of banking and financial markets in other countries. Instruction will be provided by high level banking and government officials and University faculty.

**497 Special Topics (1-6).** Study and research in areas of special interest under individual faculty direction. Topics include (A) Finance, (B) Marketing, (C) Management Information Systems, (D) Quantitative Analysis, (E) Small Business Management, (H) Production and Operations Management, (I) Unspecified. Consent of instructor.

**497I Special Topics-Unspecified (1-6).**

## Business Decision Sciences Courses

**330 Introduction To Management Science (3).** The modeling of business decisions in operations, finance and marketing, and the analysis of models using optimization, computer simulation, and decision theory. Modeling and analysis are conducted using the medium of a computer spreadsheet. The course focuses on the creation, critical evaluation, and improvement of models, as well as written and oral communication of analysis and conclusions. Prerequisites: Math 160 or equivalent, BIS 202 and BDS 308. Offered: Every semester

## Business Information Systems Courses

**202 Computer Applications In Management (3).** A comprehensive coverage of computer tools for personal productivity in a management context, including spreadsheets and presentation graphics. Prerequisite: Math 110 or equivalent Offered: All semesters.

**302 Introduction To Management Information Systems (3).** Concepts of information systems, systems analysis, and computer applications in organizations, techniques of systems analysis, systems designs, implementations, and information management (both technical and behavioral) are studied in the organizational context of management information needs. Fundamental concepts of systems, information, and fourth generation languages are studied as integral parts of accounting, financial, marketing, and production information systems. Prerequisite: BIS 202. Offered: Every semester.

## Business Management and Administration Courses

**305 Behavior In Human Systems (3).** The study of individual & group behavior in human systems where organizational goals are achieved & individual needs are satisfied. Diagnostic & observational skills will be emphasized. Simulations, exercises, field study, cases, and lectures will be utilized where appropriate. Offered: Every semester.

**327 International Independent Study In Business (3-6).** The particular content of this course will be determined by the student in conjunction with the Bloch School faculty. The course can include individual or group research projects conducted outside the U.S.A.; international internships; organized travel-study seminars; etc. This course cannot be used by students desiring to conduct international business study or research from within the U.S.A. Offered: summers.

**360 Human Resource Management (3).** Overview of the major functions of human resources, including equal employment opportunity, affirmative action, assessing and maximizing the job-person match, managing performance, recruitment, selection and staffing, employee development, compensation, incentives and benefits administration, work design and labor unions. Emphasis will be placed on legal issues, ethical implications and practical applications related to organizational strategy and effectiveness. Prerequisite: None. Offered: Winter, summer and fall.

**405 Leadership Skills In Human Systems (3).** Continuation of the study of behavior in human systems with emphasis on leadership and skills of effective action. The focus is upon the activities and interactions of leaders and followers which contribute to the achievement of organizational goals and the satisfaction of individual personal and social needs. Among issues addressed are change processes, authority, power, cooperation, communication and ethical behavior. Simulations, exercises, field study, cases and lectures will be utilized when appropriate. Prerequisite(s): BMA 305 or consent of Instructor. Offered: Every Semester.

**410 Environment Of International Business (3).** This course provides an essential introduction to the environment of international business. Particular attention is given to the historical development, cultural, economic, legal, and political context for the conduct of international business. Other topics include foreign exchange, trade finance, multilateral agreements, and the influence of government on trade. Prerequisites: ECON 201. Offered: Every semester.

**497 Special Topics (1-6).** Study and research in areas of special interest under individual faculty direction. Topics include (A) International, (B) Human Resources, (C) Law, (D) Organizational Behavior, (E) Strategic Management, (F) Entrepreneurship and (G) Unspecified. Prerequisites: Senior Standing and pre-registration consent of instructor

**497B Special Topics: Human Resources (1-6).** Study and research in areas of special interest under individual faculty direction. Prerequisites: Senior Standing and pre-registration consent of instructor.

**497C Special Topics: Law (1-6).** Study and research in areas of special interest under individual faculty direction. Prerequisites: Senior Standing and pre-registration consent of instructor.

**497D Special Topics: Organizational Behavior (1-6).** Study and research in areas of special interest under individual faculty direction. Prerequisites: Senior Standing and pre-registration consent of instructor.

**497F Special Topics: Entrepreneurship (1-6).** Study and research in areas of special interest under individual faculty direction. Prerequisites: Senior Standing and pre-registration consent of instructor.

## Cello Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Cello I (2-4).**

**102 Freshman Cello II (2-4).**

**201 Sophomore Cello I (2-4).**

**202 Sophomore Cello II (2-4).**

**301 Junior Cello I (2-4).**

**302 Junior Cello II (2-4).**

**401 Senior Cello I (2-4).**

**402 Senior Cello II (2-4).**

## Chemistry Courses

**115 Elements Of Chemistry I (4).** A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course. Corequisite: Chemistry 115L. Three hours of lecture each week, one hour of discussion each week. Fall, Winter.

**115L Elements Of Chemistry, Laboratory I (1).** A one-term course in general chemistry with special emphasis on organic chemistry and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course. Corequisite: Chemistry 115. One three hour laboratory period each week. Fall, Winter.

**160 Chemistry, Society, And The Environment (3).** This course is intended to offer a survey of chemical and scientific concepts surrounding current issues. The emphasis will be on the application of fundamental chemical knowledge to allow a full understanding of these issues in the context of currently known facts and theories. Through classroom discussion and application of the scientific method, the ramifications of the issues will be examined. Topics will include pollution, the importance of the chemical industry, its responsibilities to society, and other items of current scientific and environmental interest.

**160L Laboratory For Chemistry, Society, And The Environment (1).** This course is offered in support of CHEM 160. It will consist of field activities, experiments, and demonstrations to reinforce the concepts and ideas presented in that course.

**206 Human Nutrition (3).** Introduction to nutrition for health and wellness and the use of chemical energy in the breakdown and synthesis of biomolecules. Nutrition as it applies to a variety of life situations from infancy to older adults. Learning encompasses elements of anatomy and physiology related to nutrition and health.

**211 General Chemistry I (4).** Stoichiometry, gas laws, thermochemistry, atomic structure, molecular shapes and bonding theories. Prerequisites: or corequisite Math 110 or equivalent Restrictions: corequisite CHEM 211L Offered: Each Term

**211L Experimental General Chemistry I (1).** Introduction to the laboratory techniques used in studying the chemical properties of substances. Some quantitative techniques are included. Prerequisites: Math 110 or equivalent Restrictions: corequisite CHEM 211 Offered: Each Term

**212LR Experimental General Chemistry II (1).** Introduction to analysis and synthesis. Descriptive chemistry of the more common elements. Three hours per week. Prerequisites: CHEM 211 and 211L or equivalent (each with a C-or better) Restrictions: corequisite CHEM 212R Offered: Each Term

**212R General Chemistry II (4).** Liquids and solids, solutions, equilibrium, kinetics, electrochemistry and thermodynamics. Introductory course to all advanced work in chemistry. Prerequisites: CHEM 211 and 211L or equivalent (each with a C-or better) Restrictions: corequisite CHEM 212LR Offered: Each Term

**311 Laboratory Safety And Health I (1).** An introduction to laboratory safety and health. Topics to be discussed include good laboratory practice; laboratory hazards; safe chemical handling, storage and disposal; first aid; protective equipment; and federal regulations. Prerequisite: Chemistry 320 or 321, or equivalent. Fall.

**320 Elementary Organic Chemistry (4).** A one-semester course covering both aliphatic and aromatic fields designed to satisfy requirements for dental schools, medical technology programs, six-year medical programs, pharmacy schools, biology majors. Prerequisite: CHEM 211/211L and CHEM 212/212L or their equivalents (each with a C-or better). Restrictions: corequisite CHEM 320L Offered: Winter, Summer

**320L Experimental Organic Chemistry (1).** Elementary organic chemistry experiments to teach basic laboratory operations. Three hours of laboratory a week. Prerequisite: CHEM 211/211L and Chem 212/212L or their equivalents (each with a C-or better). Restrictions: corequisite CHEM 320 Offered: Winter, Summer

**321 Organic Chemistry I (3).** The two terms (Chemistry 321, 322R) constitute an integrated unit in which the chemistry of aliphatic, aromatic, and some heterocyclic compounds are studied. The study begins with simple monofunctional compounds and ends with polyfunctional natural products. Prerequisites: CHEM 211/211L and CHEM 212/212L or their equivalents (each with a C-or better). Restrictions: corequisite CHEM 321L Offered: Each Term

**321L Organic Chemistry Laboratory I (1).** CHEM 321L introduces the student to basic techniques and procedures in isolation, purification, and characterization of organic compounds and simple reactions used in the organic chemistry laboratory. The student will also be trained in the proper way to write a scientific laboratory report. Prerequisite: CHEM 211/211L and CHEM 212/212L or their equivalents (each with a C-or better) Restrictions: corequisite CHEM 321 Offered: Each Term

**322L Organic Chemistry Laboratory II (1).** CHEM 322L is an extension of CHEM 321L. Chemistry 322L builds from the basic techniques, procedures, and writing to more advanced organic operations. Prerequisite: CHEM 321 and CHEM 321L or equivalent (each with a C-or better) Restrictions: corequisite CHEM 322R Offered: Each Term

**322R Organic Chemistry II (3).** Continuation of Chemistry 321. Prerequisites: CHEM 211/211L, CHEM 212/212L and CHEM 321/321L or their equivalents. (each with a C-or better) Restrictions: corequisite CHEM 322L Offered: Each Term

**330 Elementary Physical Chemistry (3).** An introductory course in the principles of physical chemistry for students who have not had calculus. Prerequisites: Chemistry 320, 322R or H322R, college physics, and a good background in algebra and trigonometry. Three lecture hours a week. Fall.

**341 Analytical Chemistry I: Quantitative Analysis (4).** Principles of gravimetric, volumetric, electrolytic, and other methods of analysis. Prerequisites: Chemistry 212R or Chemistry H214, and Math 120. Two lectures and six laboratory hours a week. Offered: Every Fall; Winter term in odd years.

**341WI Analytical Chemistry I: Quantitative Analysis (4).** Principles of gravimetric, volumetric, electrolytic, and other methods of analysis. Satisfies writing intensive requirement for the B.A. degree in Chemistry. Prerequisites: CHEM 211/211L, CHEM 212/212L, and MATH 120 or their equivalents (each with a C-or better). Restrictions: Has passed the WEPT Offered: Each Term

**345R Instrumental Analysis (3).** An introductory course on the use of instruments for chemical analysis with particular reference to applications of interest to medical technologists and other students in the sciences. Emphasis will be placed on optical, electrochemical and separation methods. Prerequisites: Chemistry 320, 341, or their equivalents. (Does not meet requirements for an A.C.S. certified degree). Two lectures and three laboratory hours each week.

**367 Bioorganic Chemistry (3).** An examination into the current topics at the interface between chemistry and biology. Emphasis will be on the current literature and will include such topics as nucleic acid chemistry, protein chemistry, and carbohydrate chemistry. Prerequisites: CHEM 321/321L and CHEM 322/322L or their equivalents. (each with a C-or better) Offered: Fall

**382 Inorganic And Organic Synthesis (2).** A number of inorganic, organic, and organometallic compounds will be prepared using a variety of synthetic techniques. Prerequisites: CHEM 321/321L and CHEM 322/322L or their equivalents. (each with a C-or better) Offered: Fall

**387 Environmental Chemistry I (3).** A survey of how chemical principles can be applied to the environment. Included will be topics in aquatic chemistry, atmospheric chemistry and chemistry of the geosphere and soil. Prerequisites: CHEM 320 OR CHEM 322. Offered: Winter Semester.

**388 Environmental Chemistry II (3).** Discussion of selected topics in advanced environmental chemistry, such as environmental toxicology, environmental risk, the chemistry of hazardous wastes and their treatment, and environmental analytical chemistry. Prerequisite: CHEM 387.

**395 Directed Readings In Chemistry (1-3).** Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings. Prerequisites: CHEM 320/320L or CHEM 321/321L and CHEM 322/322L or their equivalents. (each with a C-or better). Restrictions: permission of supervising faculty member Offered: By Arrangement

**399 Intro To Research (1-3).** Special problems to introduce undergraduate chemistry majors to research methods. A comprehensive written report is required and a copy of the report is to be retained in the chemistry office. May be taken only after consultation with a member of the chemistry staff. Prerequisite: CHEM 212R or CHEM H214. Semester offered: Every semester

**410 Chemical Literature (1).** A systematic introduction to the efficient use of the chemical literature. Topics will include both classical search methods and computer search methods. Prerequisites: CHEM 320/320L or CHEM 321/321L and CHEM 322/322L or their equivalents. (each with a C-or better). Offered: Fall

**431 Physical Chemistry I (3).** A first course in physical chemistry having a calculus base. This course emphasizes thermodynamics with an introduction to the basic principles of quantum mechanics. Prerequisites: Math 210 and Math 220; and Physics 220 or preferable Physics 250 Restrictions: Prerequisite or corequisite Math 250 Offered: Fall

**432 Physical Chemistry II (3).** A second course in physical chemistry having a calculus base. This course emphasizes the quantum mechanics description of atoms and molecules, molecular spectroscopy, statistical mechanics, and kinetics. Prerequisites: Math 210, Math 220 and Math 250; and Physics 220 or preferably Physics 250; and Chem 431 (each with a C-or better). Restrictions: corequisite CHEM 437WI Offered: Winter

**434 Molecular Spectroscopy (3).** A theoretical introduction to molecular spectroscopy and its relation to structure. Electronic, vibrational and rotational spectra of chemical systems will be discussed. Prerequisite: Chemistry 432 or consent of instructor. Offered: Fall term.

**437WI Experimental Physical Chemistry I (3).** Experimental methods in physical chemistry. One hour lecture and six hours laboratory each week. Satisfies writing intensive requirements for the B.A. or B.S. degree. Prerequisites: Math 210, Math 220 and Math 250; and Physics 220 or preferably Physics 250; and Chem 431 (each with a C-or better). Restrictions: Corequisite CHEM 432 and has passed the WEPT prior to enrollment Offered: Winter

**442R Analytical Chemistry II: Instrumental Analysis (3).** A continuation of Chemistry 341. The experimental and theoretical aspects of optical and electrochemical, chromatographic and other physicochemical methods of analysis. Prerequisite: Chemistry 341. Prerequisite or corequisite: Chemistry 432. Two lectures and four hours laboratory a week. Winter.

**451R Inorganic Chemistry (3).** Modern concepts and theories of inorganic chemistry. Prerequisite or corequisite: Chemistry 432. Three lecture hours each week. Winter.

**471 Introduction To Polymer Chemistry (3).** Survey of organic and inorganic monomers and polymers; the occurrence, synthesis, structures and properties of natural and synthetic polymers; discussion of general properties of plastics, elastomers, fibers, resins, and plasticizers. Three lecture hours a week. Prerequisites: CHEM 432 (C-or better) Offered: Fall

**480 Computer Applications To Chemical Problems (3).** An intense course in Fortran programming and its uses in chemical problems related to theory and experimentation. Emphasis will be placed on the mathematical structures of chemical problems and the coding of those problems into Fortran. No previous programming experience is required. Prerequisites: Chemistry 320 or Chemistry 322R.

**490 Special Topics In Chemistry (1-3).** This course will focus on an area of chemistry of contemporary significance. The amount of credit is to be determined by arrangement with the department. May be repeated for credit when the topic varies but no more than three hours of credit may be applied to major course requirements. Prerequisites: Consent of instructor. Prerequisite or corequisite. Chemistry 431. On demand.

**495 Directed Readings In Chemistry (1-3).** Intensive readings in areas of joint interest to the enrolled student and the cooperating faculty member. Readings may not duplicate or substitute for current course offerings. Prerequisites: Chemistry 432 and permission of the cooperating faculty member. By arrangement.

**499 Senior Research (1-9).** The student is given an original research problem and will be held responsible for all previous experience in working toward its solution. A well-written, comprehensive, and well-documented research report is required, and a copy of the report is to be retained in the Chemistry department. Prerequisites: CHEM 432 and consent of a member of the Chemistry staff. Credit arranged. Semester offered: Every semester

**H212LR Experimental General Chemistry II-Honors (1).** An alternative laboratory experience to Chemistry 212LR, for those students gifted in laboratory skills and interested in working in a research lab setting. By arrangement. Winter.

**H321 Honors: Organic Chemistry I (3).**

**H321L Organic Chemistry Laboratory I - Honors (2).** A more intense version of Chemistry 321L. See course description for Chemistry 321L for details. Offered: Winter term.

**H322LR Organic Chemistry Laboratory II-Honors (2).** A more intense version of Chemistry 322L. See course description for Chemistry 322L. Prerequisite: Chemistry 321L.

**H322R Honors: Organic Chemistry II (3).**

## Chinese Courses

**110 Elementary Chinese I (5).** Introduction to the sound system of modern Chinese, aural comprehension, oral expression, basic structural patterns, writing systems. Fall.

**120 Elementary Chinese II (5).** Dialogue practice and conversation, reading of simple stories and essays, comparative study of Chinese and English grammar and syntax. Prerequisite: Chinese 110. Winter.

**211 Second Year Chinese I (3).** Introductory readings of colloquial Chinese, literature, conversation, simple composition, and comparison between written and spoken styles in modern Chinese. Prerequisite: Chinese 120 or equivalent. Fall.

**221 Second Year Chinese II (3).** Readings of modern Chinese with emphasis on expository writings, analysis of syntactic structure, composition and translation. Prerequisite: Chinese 211 or equivalent. Winter.

**280 Special Intermediate Chinese Topics I (2-4).** Instruction of Chinese on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate Chinese Topics II (2-4).** Continuation of Chinese 280. May not be repeated for credit. As needed.

**380 Special Topics: Composition And Conversation (1-3).** Treatment of a particular genre or area of literature in Chinese normally not offered through regular courses. May be repeated for credit when the topic changes. Prerequisite: Permission of the instructor. On demand.

## Civil Engineering Courses

**111 Essential Engineering (3).** Introduction to the practice and history of engineering including its impact on human history, product design/development and its relationship to the ecosystem, professionalism and ethics, the engineering approach to solving real-world problems, engineering communications and calculations, engineering teamwork and case studies. (Same as ME 111)

**211 The Engineering Enterprise (3).** The engineering enterprise course covers four topics essential for engineering students with new venture creation interests: creating economic value, leadership, finance, and marketing. The primary objective of this course is to motivate the student to think as a blend of an engineer and a businessperson. (Same as ME 211.) Pre/corequisite: CE 111

**219 Computer Programming For Engineers (3).** Analysis and synthesis of structured computer algorithms for solving engineering problems using high level programming tools such as Excel, Matlab, Fortran and/or C++. (Same as ME219) Prerequisite: Math 210

**275 Engineering Statics (3).** Fundamentals of statics; static equilibrium and introduction to elements of mechanics of elastic materials. Prerequisite: Physics 240; Co-requisite: Math 250

**276 Strength Of Materials (3).** Stress and strain; torsion; bending and shear stresses in beams; combined stresses; deflection of beams; columns. Prerequisite: CE 275.

**301 Fundamental Topics In Civil Engineering (1-3).** Special engineering topics for undergraduate students. Prerequisite: Instructor's consent.

**311 The Technical Entrepreneur (3).** The guiding principal for the course is that entrepreneurs are innovators and operate in an uncertain and risky environment. The course looks at the entrepreneurial mindset and the process of new product line launch. (Same as ME 311). Prerequisite: CE 211

**319 Engineering Computation And Statistics (3).** Statistical distribution functions and application to engineering problems. Limited treatment of curve-fitting and time-series analysis. Structured programming in Matlab. (Same as ME 319). Prerequisites: CE 219 and Math 220

**320 Introduction to Factorial Design (1).** Concepts and techniques of ANOVA and factorial design to supplement standard undergraduate statistics courses. Prerequisite: Undergraduate Statistics Offered: Winter Concepts and techniques of ANOVA and factorial design to supplement standard undergraduate statistics courses. Prerequisite: Undergraduate Statistics Offered: Winter



- 321 Structural Analysis I (4).** Analysis of statically determinate beams, frames and trusses; shear and moment diagrams; influence line diagrams; beam deflections. Analysis of statically indeterminate structures. Energy methods. Prerequisite: CE 276
- 323 Structural Steel Design (3).** Basic principles of structural steel design. Design of beams, axially loaded members, columns, and bolted and welded connections. Prerequisite: CE 321.
- 335 Soil Mechanics (3).** Detailed study of physical and mechanical properties of soil governing its behavior as an engineering material. Prerequisite: CE 276.
- 342 Water And Wastewater Treatment Processes (3).** Methods for determining and characterizing water quality, effects of pollution on streams and lakes, and an introduction to engineering systems for the distribution, collection and treatment of water and wastewater. Prerequisite: CE 351
- 351 Fluid Mechanics (3).** Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow. (Same as ME 351). Prerequisites: ME 285
- 355WI Water Resource Engineering (5).** Design and analysis of water resource infrastructure. Applied surface water hydrology, analysis of pipeline systems, design of pumping plants and power generation, cavitation, water hammer, valves operations, open channel flow in rigid channels, gradually varied and rapidly varied flow. Prerequisites: CE 319, CE 351
- 378WI Civil Engineering Materials (3).** Composition, structure, properties, behavior and selection of civil engineering materials. Prerequisite: CE 276
- 390 Engineering Coop/Internship (0).** Students may participate in structured Engineering Coop/ Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer. Prerequisite: ME 285 and CE 211
- 400 Problems (1-4).** Directed investigation of civil engineering problems. Prerequisite: Instructor's consent
- 401 Topics In Civil Engineering (1-3).** Study of current and new technical developments in civil engineering.
- 401D Topics In Civil Engineering (3).**
- 411 Civil Engineering Systems Design I (2).** Comprehensive and realistic design project using the systems approach. Design choices and their effect upon the environment. Design constraints include constructability, minimization of environmental impact, and cost-effectiveness. Managerial and professional aspects of design practice. Prerequisite: CE 355, and CE 323 or CE 422
- 412 Civil Engineering Systems Design II (3).** Continuation of CE 411 Prerequisite: CE 411
- 421 Matrix Methods Of Structural Analysis (3).** An introduction to the fundamentals of stiffness and flexibility methods for analysis of truss and frame structures. Application of the computer programs to three dimensional structures. Prerequisite: CE 321.
- 422 Reinforced Concrete Design (3).** Basic principles of reinforced concrete design. Design of beams for flexure and shear; design of short and slender columns. Bond stress development. Footing design. Prerequisite: CE 321
- 423 Advanced Structural Steel Design (3).** Design of steel structures and bridges. Topics include composite beams, plate girder design, and moment resistant connections. Prerequisite: CE 323.
- 425 Prestressed Concrete (3).** Theory and practice of prestressed concrete design. Pretensioning, posttensioning. Anchorage of steel. Materials, design specifications. Prerequisite: CE 422
- 432 Foundation Engineering (3).** Design of basic foundation structures, footings, retaining walls, pile foundations, dams. Prerequisite: CE 335.
- 443 Hazardous Waste Management (3).** Engineering principles involved in handling, collection, transportation, processing and disposal of hazardous wastes, waste minimization, legislation on hazardous wastes and groundwater contamination. Prerequisite: ME 285 and CE 211
- 444 Unit Process Laboratory (3).** Chemical and physical relationships as applied to unit processes of water and wastewater. Prerequisite: CE 342.
- 445 Environmental Engineering Microbiology (3).** Theory and application of fundamental principles of microbiology, ecology, and aquatic biology of the microorganisms of importance to sanitary engineers. Prerequisite: Senior standing.
- 446 Limnology (3).** Physical, biological and chemical issues important in surface fresh waters. Includes carbonate chemistry, algal assay and thermocline analysis. Prerequisites: Math 345, Chem 211 and senior standing.
- 447 Contracts and Law for Engineers (3).** Law of contracts, including types, construction, interpretation, performance, and termination. Construction and Engineering service contracts: proposals, general and financial conditions, specifications and drawings. Corporate and professional and person liability, insurance and bonds, property, evidence, arbitration and mediation. Offered: Fall
- 448 Environmental Public Policy (3).** Engineering and economic aspects of environmental policy. Basic understanding of environmental statutes and case law. Prerequisite: ME 285 and CE 211
- 449 Environmental Compliance, Auditing And Permitting (3).** Statutes, regulations and permitting for air hazardous wastes and storage tanks. Asbestos, radon, EMF, and emerging areas of regulatory concern. Siting issues. Criminal and civil enforcement. Prerequisite: ME 285 and CE 211
- 452 Hydraulics Of Open Channels (3).** Gradually varied flow and theory of the hydraulic jump. Slowly varied flow involving storage; rating curves. Prerequisite: CE 351.
- 453 Hydraulics And Variability Of Rivers (3).** Introduction to the concepts of alluvial channel behavior, evolution and change due to natural and man-induced modifications to streams and watersheds. Numerous case studies of river behavior are studied from the perspective of hydraulics, geomorphology and sediment transport. Prerequisite: CE 355
- 454 River Stability And Scour (3).** Bridge hydraulics, stream stability, scour at bridge piers and abutments, hydraulic modeling of floods, countermeasures for protection of bridge infrastructure. Prerequisite: CE 355
- 455 Highways, Hydraulics & Sediment Transport (3).** Hydraulics of bridge encroachments, fundamentals of fluvial geomorphology, sediment transport, alluvial channel flow, sediment transport modeling, case studies of alluvial problems and bridges. Prerequisite: CE 355
- 465 Engineering Administration (3).** Cash flow analysis, financial analysis, managerial accounting and cost control, budgeting, organizational structure and behavior. Prerequisite: ME 285 and CE 211.
- 467 Introduction To Construction Management (3).** Structure of the construction industry; construction drawings and specifications; estimating and bidding; construction contracts, bonds and insurance; planning and scheduling of construction operations; project management; computer techniques. Prerequisite: ME 285 and CE 211
- 468 Construction Planning And Scheduling (3).** Planning and scheduling of construction operations by the critical path method. Network diagramming, scheduling computations, and time-cost trade-offs. Manpower and equipment leveling. Computer and non-computer techniques. Prerequisite: ME 285 and CE 211
- 469 Construction Methods And Equipment (3).** Selection and use of construction equipment; planning construction operations. Equipment economics. Prerequisite: ME 285 and CE 211
- 472 Advanced Mechanics Of Materials (3).** Shear center; unsymmetric bending; curved beams; beams on elastic foundations; thick-walled cylinders. Energy methods. Torsion of noncircular sections. Theories of failure. Plate theory. Prerequisite: CE 276.
- 475 Introduction To Earthquake Engineering (3).** Introduction to the fundamentals of earthquake engineering and earthquake resistant design of civil engineering structures. Prerequisite: ME 285
- 481 Highway And Traffic Engineering (3).** Principles of highway engineering and traffic analysis, road/vehicle performance, geometric alignment of highways, traffic analysis and queuing theory, signal design, statistical analysis of traffic data and highway drainage. Prerequisite: Math 250
- 484 Pavement Materials And Design (3).** Properties of materials used in roads, airports, and other pavement construction. Design methods for rigid and flexible pavements. Prerequisite: CE 378WI.
- 486 Planning and Geometric Design of Highways (3).** Techniques of highway planning in rural and urban areas. Design of the visible elements of highways.
- 487 Applied Finite Element Analysis (3).** The study of advanced simulation techniques for the solution to engineering problems. The use of Finite Element Method toward solving mechanical, structural, vibration and potential flow problems will be explored. The use of current commercial simulation tools will be used extensively. Prerequisite: ME 130, CE 275, Matrix Algebra Offered: Fall
- 491 Internship (0-6).** For International students who must register for 1 credit hour to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.

## Clarinet Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Clarinet I (2-4).**

**102 Freshman Clarinet II (2-4).**

**201 Sophomore Clarinet I (2-4).**

**202 Sophomore Clarinet II (2-4).**

**301 Junior Clarinet I (2-4).**

**302 Junior Clarinet II (2-4).**

**401 Senior Clarinet I (2-4).**

**402 Senior Clarinet II (2-4).**

## Classical and Ancient Studies Courses

**210 Foundations Of World Literature I (3).** An investigation of the great ideas that inspired humankind in different cultures through the ages. These ideas will be explored as they are expressed in literature. Literary works of different ages and different cultures are included. Also offered as World Literature 210. Offered: On Demand

**300 Special Topics (1-3).** A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

**300A Special Topics (1-3).** A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

**300CB Cc: Women In The Ancient World (3).** This course focuses on the history, representation, literature, social lives, and political roles of women in ancient civilization including Egypt, Mesopotamia, the Biblical World, Greece, and Rome. It integrates methodologies from history, art history and archaeology, literary studies, and women's studies.

**300CR Roman Revolution: History And Culture From Gracchi To Augustus (3).** The period of Roman history from the revolution initiated by the Gracchi to the demise of the Republic and the establishment of the Principate under the Augustus will be studied. The course begins with the Scipionic Circle under whose leadership foreign imperialism, domestic factionalism, and the influx of Greek culture increased. Political, social and cultural developments which culminated in the violent death of the old system will be traced. We will also show how Augustus kept the past alive to make his new government acceptable to the tradition-loving Romans. Students will read the words of such writers as Terence, Cato, Polybius, Cicero, Caesar, Sallust, Catullus, Horace, Virgil, and Ovid, whose works cover the important genres of Roman literature—new comedy, rhetoric, satire, history, epic, pastoral and lyric poetry.

**300CS Cc: Clio And The Other Muses (3).** This course focuses on the history, art, architecture, literature, and culture of Athens in the 5th Century BCE. Course readings will include primary literary and historical sources such as lyric poetry, comedy and tragedy, philosophy, and historical writings.

**300CY Cc: Ancient World/Cinema (3).** This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

**300CZ Cc: Archaeology Of Ancient Disasters (3).** Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe. We begin with the geological context of disaster, including earthquakes, volcanic eruptions, climate change, and soil depletion. Next, we examine how ancient societies responded to disease, an ever present threat from the biological environment. Finally, we look at how ancient human groups were changed by stresses of cultural origin, including overpopulation, depletion of vital resources, and warfare. The study of ancient disasters not only gives us a wider understanding of human history, it may offer lessons for coping with future catastrophes. Also cross listed as Geology 326CZ. Offered: On Demand

**300D Special Topics (1-3).** A course about a selected field, genre or individual figure from the ancient world that is not part of the program's regular offerings. May be repeated for credit.

**310WI Ancient Philosophy (3).** A survey of the central figures of classical philosophy: the pre-Socratics, Socrates, Plato, Aristotle, the Stoics, the Epicureans and other philosophers of antiquity. The contributions of major philosophers to the development of science, religion, and social and political theories are studied. Also listed as PHIL 310WI. Prerequisite: Philosophy 210,222 or an equivalent and successful completion of the WEPT.

**318 Bible As Literature (3).** A critical study of the major portions of the Old and New Testaments and the Apocrypha, with special attention to the development of literature from oral tradition, the literary genres, themes and archetypes represented in the collection, and the diction and style which have influenced later literature. Consideration also of the relation of Biblical literature to the historical, religious, and cultural milieu of the ancient Near East. Also listed as ENGL 318.

**319 Myth And Literature (3).** A study of classical myth including readings from Homer to Ovid, analysis of selected myths in later literature, art, and music, and a study of contemporary definitions and approaches to myth. Also listed as ENGL 319.

**340A Classical Literature In Translation (3).** This course will focus on representative authors and works from the Greek and Roman Classical periods, such as Homer, Sophocles, Euripides, Aeschylus, Aristophanes, Plato, the Greek Lyric Poets, Virgil, Horace Juvenal, Ovid and Plautus. Also listed as ENGL 340A

**369 Introduction To Prehistoric And Classical Archaeology (3).** An introduction to archaeological research methods that traces human origins and cultural development from the earliest fossil evidence to the threshold of written history and civilization. This class emphasizes the evolutionary and cultural developments that allowed our ancestors to colonize the continents and develop lifeways involving hunting and gathering, farming and urbanism.

**376 Ancient Concepts of the Hero (3).** This course traces the ancient concept of the hero by reading selected ancient works by authors such as Homer, Thucydides, Livy, Plutarch, Caesar, Tacitus, and Sallust. Students will also examine the impact of the ancient concept of the hero on modern literature and art. Also listed as ENGL 376

**430 Plato (3).** Selected dialogues of Plato are studied with a view to understanding Plato's philosophy and its position in the world of Greece and antiquity. Plato's philosophy is also examined with reference to his place in the Western tradition and in modern philosophy. Also listed as PHIL 430. Prerequisite: Philosophy 210,222 or an equivalent

**431 Aristotle (3).** Selected portions of Aristotle's works on logic, metaphysics, science, ethics, politics, and poetics are studied with a view to understanding Aristotle's philosophy and its position in the world of Greece and antiquity. Aristotle's philosophy is examined with reference to its place in the Western tradition and in modern philosophy. Also listed as PHIL 431. Prerequisite: Philosophy 210, 222 or an equivalent

**467 Myth And Ritual (3).** "Myth" and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. Will not only trace the shifting meanings of "myth" and "ritual," but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies. Also listed as HIST 467.

**469 Archaeology And Biblical History (3).** An examination of ancient Israel as she emerges from the ruins of the past, both lapidary and literary. Through a study of the "mute documents," artifacts man-made (storied cities, household utensils, inscribed shards from Jericho to Jerusalem) we gain an insight indispensable for Biblical studies, for ancient Near Eastern history. Also listed as Hist 469.

**470 Ancient Egypt (3).** This course describes the political, social and cultural evolution of ancient Egypt from pre-dynastic times, with major emphasis upon the Old, Middle, and new Kingdoms (especially the 18th dynasty and the reign of Akhenaton). Also listed as HIST 470.

**470P Ancient World: The Social History Of The Ancient World (4).** The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e. Mesopotamia, Egypt, Greece and Rome. Also listed as HIST 470P.

**471 Ancient Greece (3).** This course begins with a survey of the pre-classical Minoan and Mycenaean civilizations and then describes the rise of prominent Greek city-states (with particular emphasis upon the evolution of Sparta and the political, social and cultural contributions of Athens). The course

concludes with the rise of Macedon and Alexander's conquests and significance. Also listed as HIST 471.

**471P Ancient World: The Political Structure Of The Ancient World (4).**

The four-hour lecture period on weeknights will emphasize the historical aspects of the ancient civilizations. The lectures will be chronologically organized to focus upon their evolution from their rise to their collapse. Also listed as HIST 471P.

**472 Ancient Rome (3).** This course covers Roman history from its origins (including the Etruscans) to the decline of the imperial system. Particular emphasis is placed upon the political, social and economic developments in the Republic, the death of the Republic, the early Principate, and the factors that led to Rome's decline in the ancient world. Also listed as HIST 472.

**472P Ancient World: The Cultural & Intellectual Dimensions Ancient Civ (4).**

The four weekend periods will provide the students with a general picture of these civilizations: society, religion, economics, and culture (w.f., arts, literature, philosophy, science, etc.). Guest lecturers, slides, films and video cassettes will be used to introduce the varied aspects of these ancient peoples. Also listed as HIST 472P.

**475WI History Of Ancient Israel (3).** Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginnings through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted. Also listed as HIST 475WI.

**499 Senior Tutorial (3).** A three-hour comprehensive reading and research tutorial leading to the writing of a senior paper. It consists of tutorial sessions and independent research leading to a major paper using original source materials. Prerequisite: Recommended for students wishing to pursue a graduate degree in Classical and Ancient Studies. Restrictions: Recommended for students wishing to pursue a graduate degree in Classical and Ancient Studies.

## Communication Studies Courses

**110 Fundamentals Of Effective Speaking And Listening (3).** An introduction to the dimensions of effective platform speaking with special emphasis on developing critical listening skills. Lecture, performance, and discussion. Every semester.

**140 Principles Of Communication (3).** An interdisciplinary introduction to the study of contemporary communication studies including a consideration of intrapersonal, interpersonal and public communication. Lecture. For non-majors only. Offered: Fall or winter.

**212 Argumentation And Debate (3).** A study of the nature of logical discourse generated through the preparation and presentation of oral argument within the framework of the debate format. Lecture, performance and discussion. Offered: Fall and winter.

**213 Argumentation And Critical Thought (3).** An introduction to the theory and application of argument construction. The course is designed to examine the fundamental strategies of critical thinking and to help understand the relationships among critical thought and argumentation development and refutation. This course is designed for application across many fields and is not specific to debate or oral argument. Lecture, discussion. Prerequisite: None. Offered: Fall.

**220 Introduction: Modern Communications Media (3).** A comprehensive survey of the content, structure and control of the communications media in American society—newspaper, motion pictures, radio and television; providing an informational frame of reference that will enable discerning students to formulate and apply useful critical concepts in evaluating America's media environment. Every semester.

**230 Introduction To Film Studies (3).** The course is an introduction to the study of film as an art form and industrial practice. Students are introduced to the basic terms and concepts of film theory, including theories of film editing and mise-en-scene while becoming familiar with the basic "canon" of major films and directors that form the foundations for the academic field of film studies. Offered: Fall

**250 Introduction To Film And Video Methods (3).** This course is a comprehensive examination of film and video production methods and visual literacy. It is the foundation and prerequisite for all film, video, and new media production courses. It is also the professional media production overview course for advertising, public relations, and other creative, non-technical communications careers. Prerequisite: None Offered: Fall, Winter, Summer

**265 Media Photoimaging (3).** An introduction to the production and manipulation of photographic images as they are applied in the print publishing medium, multi-image, and multimedia communications. Photography will be examined as a fundamental medium for the study of visual communication and the techniques of creating specifically meaningful

images. This course will provide an essential familiarity with the terminology, concepts, practices, and process variables involved in photographic direction and production supervision, and will also introduce the basics of image composition, manipulation, and quality control. Offered: Summer & Fall

**303WI Introduction To Journalism (3).** Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles. Also offered as English 303WI.

**308 Introduction To The Study Of Human Communication (3).** This course serves to introduce students to the basic theories, perspectives and methodologies used (historically and currently) in the study of speech, interpersonal and mass communication. Prerequisites: COMS 110 (grade of C or better) Offered: Every semester

**308WI Introduction To The Study Of Human Communication (3).** This course serves to introduce students to the basic theories, perspectives and methodologies used (historically and currently) in the study of speech, interpersonal and mass communication. Writing Intensive course. Prerequisites: ComS 110 (grade of C or higher) and Passed WEPT Offered: On Demand Restrictions: Successful completion of WEPT

**311 Radio & Television Performance (3).** A study of the specialized radio and television performing and operating situations and techniques simulated and evaluated in studio sessions. Lecture, discussion and performance. Prerequisite: None.

**312 Advanced Public Speaking (3).** Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse. Prerequisite: Communication Studies 110. Offered: Fall & Winter.

**312P Advanced Public Speaking (3).** Advanced study of rhetorical theory and its application to the presentation and criticism of public discourse. Prerequisite: Communication Studies 110. Offered: Fall & Winter.

**314WI Reporting (3).** A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and off. Work is turned in on deadline and critiqued by the instructor. Also offered as English 313. Prerequisite: Eng 110, 225, and successful completion of the WEPT.

**317 Persuasion (3).** A study of the rhetorical, psychological and ethical principles of influencing and controlling individuals and groups, and of the methods of adapting to various attitudes and audiences through the preparation, presentation and evaluation of persuasive speeches. Lecture, discussion and performance. Prerequisite: Communication Studies 110. Offered: On demand.

**320 Mass Media, Culture And Society (3).** A critical exploration of the role of mass media (and its reception) in the social construction of reality. The course employs theoretical, analytical and empirical approaches derived from multidisciplinary sources, particularly "critical theory" semiology, post-structuralism, psychoanalysis and ethnography. Term paper required. Prerequisite: Communication Studies 308. Offered: Every semester.

**322 Oral Performance In Speech Communication (3).** This course is designed to develop and strengthen oral communication for students pursuing careers in pre-law, media, human resources, and education as well as increase the skills of potential professional speakers. The student will learn to develop emotional, vocal, physical, and non-verbal skills through an investigation of poetry, prose, and non-fiction literature. Through the process of reading, studying, investigating, rehearsing, and performing literary and nonliterary works, the students will learn to pay particular attention to the voice embodied in a given text and the cultural and social context within which that voice speaks. Prerequisite: ComS 110. Offered: Fall and Winter.

**331WI Mass Media In America (3).** Writing intensive. Social History of the development of mass media, radio, film and television, from Marconi's first experiments to the present. Emphasis placed on relationship of American culture and American media. Term paper required. Prerequisite: Successful completion of the WEPT. Offered: Fall.

**339 Film Theory And Criticism (3).** The course serves to locate the film medium within the study of human communication while developing an understanding of the effects of film on the individual and society with an emphasis on understanding the film medium as both an art form and a reflection of a social system with national, cultural & sub-cultural components. Term required. Prerequisite(s): ComS 308 or 320. Offered: Winter.

**341 Rhetorical Theory And Criticism (3).** An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change. Fall.

**341WI Rhetorical Theory And Criticism (3).** Writing intensive. An analysis of significant public discourse within the context of social protest and political rhetoric with attention to applying methods of communication criticism in evaluating the effectiveness of persuasive advocacy aimed at social change. Prerequisite: ComS 308 and successful completion of the WEPT required for admission.

**343 Group Dynamics (3).** A study of strategies and communication relationships unique to non-dyadic situations, with an emphasis on the integral structure of leadership, roles, norms and task functions. Discussion. Offered: On demand.

**344 Communication In Organizational Settings (3).** An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding of the communication process within the organizational context. COMS 110 OR COMS 308. Offered: Fall/Winter.

**344WI Communication In Organizational Settings (3).** An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding. Prerequisite(s): 110 or 308 and WEPT.

**351WI Fundamentals Of Writing For The Media (3).** Writing intensive. Analysis of individual differences and common characteristics of copy for eye and ear, with emphasis on the application of both verbal and visual imagery in the process of communicating the writer's ideas and intentions. Weekly written assignments and critical analysis of the student's work. Prerequisites: Communication Studies 110 and successful completion of the WEPT. Offered: Fall and winter.

**363 Radio Production I (3).** A study of the techniques of producing audio material for use in radio, in concerts, on film, on television and in the recording studio. Lecture, discussion, and laboratory. Prerequisite: COMS 308. Offered: Fall.

**371 Intermediate Video Production (3).** A study of the principles and techniques of studio production, with emphasis on introducing and developing intermediate skills using professional broadcast video equipment and post-production technologies. Lecture, discussion, and laboratory. Prerequisite: COMS 270 and 351 Offered: Fall

**373 Intermediate Media Production (3).** Emphasis on 16mm non-sync production in the studio and field. Students produce, script and edit a significant individual project. Lecture, discussion and laboratory. Prerequisite: ComS 250 Offered: On Demand

**376 History Of The Film Industry (3).** A history of the development of the American film industry from 1900 to the end of the studio era. The course will stress such issues as studio production, censorship, the economics of production and the selling of mass culture through the film medium. Term paper required. On demand.

**377 Interpersonal Communication (3).** An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion. Prerequisite: COMS 308 Offered: Fall and winter.

**377WI Interpersonal Communication (3).** Writing intensive. An intensive analysis of the dimensions of intrapersonal and interpersonal communication designed to identify the philosophies and methods which underwrite effective human communication. Lecture and discussion. Prerequisite: Successful completion of the WEPT (effective FS93). Offered: Fall and winter.

**378 Computer-Mediated Communication (3).** Examination of the nature of human communication on the Internet. Design function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required. Prerequisite: None Offered: On demand

**378WI Computer Mediated Communication (3).** Examination of the nature of human communication on the internet. Design, function, content innovations of computer mediated communication discussed, with emphasis on technology as a means of interpersonal communication. Research, essays, and participation in online environment required. Prerequisite: Successful completion of the WEPT EXAM Restrictions: Writing Intensive. Successful completion of the WEPT Exam required. Offered: Fall 2003.

**380 Contemporary Media Topics (3).**

**382 Advanced Media Topics (3).** Variable content: Media Arts and Media Studies Topics will be addressed in this course including film/video production and post-production techniques, and analytical evaluation of recent trends in media. Prerequisite: Topic Dependent Restrictions: Approval of instructor Offered: Winter

**384 Documentary Film (3).** The purpose of this course is to familiarize students with the history, terminology, film making techniques, film makers and cultural/societal influences of documentary film. Five distinguishing characteristics will be examined in terms of 1) subjects, 2) purposes, points of view, or approaches, 3) forms, 4) production methods and techniques and 5) experiences they offer to audiences. Prerequisites: None. Offered: Every winter.

**385 Documentary Production (3).** This course is designed to familiarize students with the basics of documentary production from an artistic, ethical, and practical results-oriented perspective. Prerequisites: ComS 250 or ComS270 Offered: Fall

**390 Forensic Activities (1-4).** Participation in the intercollegiate forensic program. A practicum in debate, discussion, oratory and other forensic activities. Prerequisite: Consent of instructor. Offered: Summer, fall, winter.

**391 The World(S) Of Alfred Hitchcock (3).** The course offers a historical study of the film art of Alfred Hitchcock. The course gives special attention to the director's work in the silent cinema of the U.K., Hitchcock's early major British sound films, his arrival in the United States, his major World War II propaganda films, the directors maturing into a major influence on world cinema in the 1940s, and Hitchcock's "masterworks" of the 1950s-1960s. Offered: On Demand

**392 Great Directors Of Foreign Film (3).** The course is an introduction to the major films and directors of the international cinema. Particular attention will be given to the influence of German Expressionism, Italian "Neo-Realism," the "French New Wave, the "New German Cinema" of the 1970s, post-Franco Spanish cinema, and the national cinemas of South America, India, China, and Japan. Offered: On Demand

**393 History Of The Hollywood Musical (3).** The course offers a historical survey of the development of the film musical as a major Hollywood film genre from the introduction of the sound film in 1927 to current manifestations of the genre. The course gives particular attention to the development of the studio musicals of the 1930s, the role of the musical during World War II, the "Golden Age" of the MGM musical in the 1950s-60s, and the effects on the traditional Hollywood musical of the Vietnam Era social upheavals. Offered: On Demand

**394 The World Of "Film Noir" (3).** The course offers a historical survey of the development of "film noir" as a major film genre. The course examines the major characteristics that define "film noir" and offers an introduction to the historical roots of this genre in German Expressionism, as well as the social and political context for the development of "film noir" as a Hollywood studio genre in the late 1940s. Particular attention is given to the social/ political conditions of the 1950s that contributed to both the rise and decline in popularity of "film noir" during the Cold War, as well as the film genre's revival in the "neo-noirs" of the 1970s. Offered: On Demand

**400 Special Studies (1-3).** (A-N) This is an upper-level course on a subject which is not a part of the regular department offering. The course results from one or more of the following: (1) the expressed desire of students (2) the broadened or refocused scholarship of a member of the communication studies faculty (3) the temporary presence of a scholar whose specialization is not reflected in the department's regular offerings (4) the conclusion by the department that the course meets a community need (5) the effort of the Communication Studies faculty to provide an interdisciplinary approach to an era or topic. The course is experimental in the sense that it is a "one-time" offering with the potential of repetition or modification, depending upon student, faculty and community response. On demand.

**400CB Cc: The African Diaspora In The Arts And Culture (3).** This new cluster course will examine the expression of certain aspects of African culture in the African Diaspora. Black culture in the area now popularly termed "The Black Atlantic," and in particular Western Africa, the Caribbean and certain parts of South and North America, will be examined. Special attention will be paid to visual and material culture, feminist and anti-apartheid literature, and religion and spirituality. African culture is a multi-layered and complex phenomenon. An understanding of African Diastolic culture involves an analysis of the effects of historical and sociological movements, the interpretation of written culture and the effects of Africa's response to colonial intrusion. Questions concerning the transmission and transformation of African cultures will be addressed by a close investigation of visual and material culture, literary texts, and cosmological constructions of African peoples. Students will be exposed to methodologies garnered from the Arts, Literature and Religious Studies. Offered: Fall Restrictions: Sophomore or above

**400CT Cluster Course: Healing And Cultural Diversity (3).**

**400G Special Studies In Communication Studies (1-3).**

**400M Special Studies In Communication Studies (1-6).**

**400N Special Studies (1-3).**

**400Q Special Studies In Communication Studies (1-3).**

**400W Special Studies in Communication Studies (1-3).**

**403CE Cc: Radical Changes Since 1945 (3).** This cluster course will focus on modernism, post-modernism and expressionism in the visual arts and literature since World War II. Lectures address intellectual movements—such as existentialism and formalism—and cultural development—such as increased impact of technology and mass media—in contemporary society. By focusing on these movements, we hope to provide an integrated view of the literature and visual arts of the period and to draw upon analogous developments in

contemporary architecture, music, philosophy and film. This course is offered as a cluster with English 300CE.

**431 Colloquium In Interpersonal Dynamics (3).** An examination of the practical application of communication principles and theories, with focus on one of the following: health, organizational, nonverbal, intrapersonal, conflict management, computer-mediated, or intercultural communication. Prerequisite: None Offered: On demand.

**432 Press, Politics And Public Policy (3).** Undergraduate component of Comm Studies 532. An advanced course in the study of the press and political establishments in the formation of public policy. Lecture, discussion and research. Prerequisites: Two semester of undergraduate writing courses of 300-400 level or professional equivalents.

**444WI Intercultural Communication (3).** A consideration of communication phenomena in multicultural settings. A study of the public forum with an emphasis on the interpersonal aspects of international, intercultural, and co-cultural communication. Lecture and discussion. On demand. Prerequisite: Successful completion of the WEPT.

**448 Principles Of Public Relations (3).** An overview, presenting the function, purposes, procedures and practices of public relations, its role in society, industry, government and politics, and its potential as a career field. This is a survey course with primary emphasis on theory, supplemented with applied techniques.

**454 Screenwriting (3).** Study of the forms, techniques, and types of dramatic writing for the broadcast media, including analysis of dramatic structure and documentary procedures, with practical application of concepts through periodic writing assignments and critical analysis. Prerequisites: ComS 351 and consent of instructor. Fall.

**457 Producing And Distributing Media (3).** Survey of Contemporary practices used in the producing, funding and distribution of media for theatrical, broadcast, home video/dvd and web-based markets. Lectures, discussion and projects. Prerequisites: None

**458WI Publicity, Promotion And The Media (3).** Writing intensive. A study of controlled and uncontrolled (public) media and their use to effect motivation of various target audiences, and alteration of attitudes, opinions, and beliefs in special publics; examination of the theory and nature of messages and materials generated by PR departments or counseling firms; analysis and practice in development of specialized communications materials, such as house organs, news releases, publicity and speeches to gain reaction and support from specialized groups. Prerequisite: Communication Studies 351 and successful completion of the WEPT. Offered: Fall.

**462 Public Broadcasting (3).** A study of the development of public broadcasting, its position and responsibilities in the world of modern communications. Programming and operations concepts and philosophies of public broadcast facilities will be studied and analyzed. Prerequisites: COMS 308 AND 361. Offered: On demand.

**466 Electronic Journalism Performance (3).** An advanced study of television and Internet news gathering, field production and performance for electronic media. Prerequisite: Coms 456 Offered: Fall

**470 Directing (3).** An advanced course in video techniques with emphasis on creating complex formats for broadcasting, recording and performance. Lecture, discussion, and laboratory. Prerequisites: Communication Studies 270, 351 and 371. Offered: Winter

**471 Advanced Media Production (3).** An advanced course in media production techniques involving knowledge and practical use of video, film and sound equipment to create professionally competitive media productions. Lecture, discussion, laboratory and research. Prerequisites: Communication Studies 371, 470 or professional equivalents. Offered: On demand.

**478 Media Law (3).** A comprehensive examination of the law as it pertains to advertising, public relations, journalism, commercial and electronic media, broadcast regulatory agencies, corporate speech and corporate participation in elections. Students will study topics that include the First Amendment, defamation and privacy. Court opinions and legislation will be the course's primary focus, however students will also examine contemporary and historic theory of free expression. Offered: On demand.

**483 Research Seminar In Communication Studies (3).** This is the departmental capstone course and is required for majors in their senior year. The course summarizes and extends student's theoretical and applied understanding of the role of communication competence in the work place and beyond. The course also focuses on refining student's research competencies and their appreciation of the cultural role of modern communication methods. Prerequisites: Completion of COMS 308 and 344 and 12 additional hours of Communication Studies credits. Offered: Fall and Winter.

**484 Communication Studies Activities (1-4).** Internships opportunities for advanced students involved in community and campus activities. Student must receive approval of advising professor in semester prior to enrollment. No more than four hours with any one project. Fall, winter and summer.

**498 Special Problems In Communication Studies (1-6).** Research and/or projects for advanced upper class students. Student must receive approval of advising professor in semester prior to enrollment. No more than three hours with any one instructor. Offered every semester.

## Computer Science Courses

**100 Computer Survival: Applications (3).** Hands-on experience using a computer as a tool to enhance learning. Use of an integrated software package which includes word processing, graphics, database, spreadsheet, and telecommunications applications. Not applicable to Computer Science major requirements. Prerequisites: Math 110 or equivalent.

**101 Problem Solving And Programming I (3).** Problem solving and algorithms, design using objects. Use of structured programming, arrays, control structures, strings searching, sorting and files in C++. Coding, testing and debugging using a modern development environment. Prerequisites: Math 110 or equivalent.

**191 Discrete Structures I (3).** Mathematical logic, sets, relations, functions, mathematical induction, algebraic structures with emphasis on computing applications. Prerequisite: Math 110

**201 Problem Solving And Programming II (3).** Problem solving and programming using classes and objects. Abstract data types, templates, pointers, linked lists, stacks and queues implemented C++. Recursion, efficiency of searching and sorting algorithms. Prerequisites: CS101, CS191.

**243 C And Unix (3).** Syntactics and semantics of C applied to dynamic structures, recursion, abstract data types, libraries. General introduction to UNIX operating system and UNIX file system, and use of UNIX system calls in C. Prerequisite: CS 101.

**246 Introduction To C++ (2).** Syntax and semantics of C++ applied to object oriented programming concepts of abstract data type, classes, data hiding, polymorphism and inheritance. Prerequisite: CS 201, CS 243.

**281 Introduction To Computer Architecture (3).** Data Representation, Number Systems, Boolean Algebra, Sequential Logic, Computer Organization and design, Computer Organization and design, Computer Software, Input and Output Organization. Prerequisite: CS 191

**282 Assembler Language Programming (3).** Use of an Assembler Language for a virtual machine, Internal Representation of Data and Instructions, the Assembly Process, Loading and Program Relocation and Execution. I/O, Exception Handling, Alternative Architectures. Prerequisite: CS 201 and CS 281.

**291 Discrete Structures II (3).** Lattice structures and graph theory, algorithms, Boolean algebra, introduction to computability theory and abstract machines. Prerequisite: CS 191

**304WI Ethics And Professionalism (3).** Societal and ethical obligations of computer science, IT, and electrical/computer engineering practice. Topics include ethical obligations of professional practice, electronic privacy, intellectual property, and whistle-blowing. This course is a writing-intensive course. Prerequisites: ENGL 225 (Freshman English II) or equivalent and completion of Written English Proficiency Test (WEPT)

**349 Java Programming With Applications (3).** The course covers the syntax and semantics of the Java programming language along with the use of essential class libraries. These topics will be taught in the context of application development. Students will learn how to write small to medium sized Java applications and applets. Specific topics covered include: essential classes in the Java API, interfaces, inheritance, exceptions, graphical user interface components, layout managers, events, I/O classes, Applets, data base access, and multithreading. Prerequisite: CS201 or equivalent Offered: Every Semester

**352 Data Structures And Algorithms (3).** Abstract data structures and analysis of associated algorithms, abstractions as separate from implementation. Structures include lists, trees, priority queues, advanced tree structures, and graphs. Comparison of efficiency of algorithms as implemented with various data structures. Advanced searching and sorting algorithms, shortest paths, spanning tree and flow algorithms. Introduction to the basic concepts of NP-complete problems. Prerequisites: CS 201, CS 291, MATH 210. Offered: Every Semester Restrictions: None

**393 Numerical Analysis And Symbolic Computation (3).** Basic elements of numerical analysis: numerical solution of algebraic equations, solution of linear simultaneous algebraic equations, matrices, eigenvalues and eigenvectors, numerical integration and numerical solution of linear differential equations. Use of a symbolic manipulator on both symbolic and numerical computation, applied to the above listed basic elements of numerical analysis. Prerequisites: Math 250, CS 201, CS 281.

**394R Applied Probability (3).** Basic concepts of probability theory. Counting and measuring. Probability, conditional probability and independence. Discrete, continuous, and multivariate random variables. Functions of random variables. Sums of independent random variables and transform methods;

random number generation and random event generation. Law of large numbers, central limit theorem, inequalities. Their applications to CS and ECE areas are stressed. Prerequisites: CS 201, or ECE 216, MATH 250, MATH 235 or ECE341

**411 Introduction To Telecommunications Systems (3).** Representation of signals and systems. Fourier Series, Fourier Transform, transmission of signal through linear system, amplitude modulation systems, frequency and pulse modulation systems, sampling, time division multiplexing, digital modulation and noise in modulation systems. Prerequisites: CS 311, 394R and MATH 250.

**416 Telecommunications Systems: A Survey (3).** Review of Telecommunications techniques; wire, radio, microwave, satellite and optical fiber communications systems; mobile phones, ISDN and broadband ISDN, Signalling System No. 7, CCITT telecommunications standards. Prerequisite: CS 311 or consent of instructor.

**420 Introductory Networking and Applications (3).** This introductory course examines the systems aspects of the different LAN/MAN/WAN models, including topics such as protocols, network operating systems, applications, management and wireless communication systems. It also examines how the different models are interconnected using bridges and routers. NOTE: NOT FOR GRADUATE CREDIT. Prerequisites: Senior Standing/Consent of Instructor

**421A Foundations of Data Networks (3).** This introductory course examines the analytical aspects of data communications and computer networking. Topics cover protocol concepts and performance analysis that arise in physical data link layer, MAC sub layer, and network layer. Prerequisites: CS 291, 352 394 (recommended). Offered: Every Semester Restrictions: None

**423 Client/Server Programming And Applications (3).** Fundamentals of Client/Server programming using socket interface; features of network programming including connection oriented and connectionless communication in multiple environments (Windows, UNIX, and Java); other client/server mechanisms, such as RPC and RMI and formal object environments designed to facilitate network programming (CORBA, COM and Beans). Prerequisites: CS352, CS431.

**431 Introduction To Operating Systems (3).** Concurrency and control of asynchronous processes, deadlocks, memory management, processor and disk scheduling, parallel processing, file system organization. Prerequisites: CS 352, and CS 281.

**441 Programming Languages: Design And Implementation (3).** Specifications of syntax and semantics, simple statements, precedence, infix, prefix, and postfix notation, global properties of algorithmic languages, scope of declarations, storage allocation, binding time of constituents, subroutines, co-routines and tasks, list processing, string manipulation, run-time representation of program and data structures. Prerequisite: CS 352.

**444 Compiler/Translator Design (3).** This course will teach modern compiler techniques applied to both general-purpose and domain-specific languages. The examples chosen will also convey a detailed knowledge of state-of-the-art based WWW technology. The fundamental goal of programming is to provide instructions to the computer hardware. The primary purpose of the compiler/translator is to facilitate communication from the programmer via some high level language to ultimately the computer hardware. Understanding how compiler/translators are built and operate is important to understanding efficiency of operation and storage. Prerequisite: CS352.

**451 Software Engineering (3).** Taxonomy of software engineering, software lifecycle, process structured vs. data structured analysis and design, structured design methodologies, object oriented design, foundations of software engineering. This course fulfills the senior general education synthesis requirement. Prerequisite: CS 352.

**456 Human Computer Interface (3).** Design of human-computer interfaces considering the psychological and physical abilities of the user. User interface design from a functional and ergonomic perspective. Use of graphical interface standard X-Windows and the development of high quality user interfaces. Programming of user interfaces using Visual Basic. Prerequisites: CS451.

**457 Software Architecture: Requirements & Design (3).** Introduction to requirements and design engineering with emphasis on organization and presentation of system requirements and designs for customers, users and engineers; validation of requirements and design with needs of system customer; examination of requirement and design changes during the lifetime of a system; transformation of informal ideas into formal detailed descriptions; examination of the different stages in the design process including architectural design, interface design and data structure design; examination of domain modeling criteria and examination of design quality attributes. Also discusses non-functional attributes and project resource allocation. Prerequisite(s): CS352: knowledge of at least one high-level programming language.

**458 Software Architecture: Testing & Maintenance (3).** Introduction of software system testing (including verification), software reuse, software maintenance, and software re-engineering. Prerequisite(s): CS352; knowledge of at least one high-level programming language.

**461 Introduction To Artificial Intelligence (3).** Search space generation, pruning and searching, employment of heuristics in simulation of the cognitive process, an overview of predicate calculus, automatic theorem proving. Prerequisite: CS 441.

**464 Applied Artificial Intelligence (3).** Intelligent agents. Solving problems by search. Game playing. Logical reasoning systems. Planning agents. Decision making. Learning methods. Neural networks and learning. Neural language processing. Perception Expert systems. Prerequisite(s): CS461 Artificial Intelligence.

**470 Introduction To Database Management Systems (3).** Database organization and query processing and optimization, database design, schema and sub-schema, data independence, query languages, physical and logical organization of databases, normalization transaction management, database recovery. Prerequisites: CS352.

**471 Database Design, Implementation And Validation (3).** This course discusses in detail all aspects of ORACLE database management systems. It covers in detail database design, implementation, and validation using ORACLE. In addition to these, it briefly covers ORACLE implementation, tuning, and implementation on Window NT. The course is suitable for undergrad seniors and professional alike. Prerequisite: CS 352

**475 Introduction To Computer Graphics (3).** Interactive Computer Graphics, Hardware Interaction, 3D transformations, Shading, Lighting and Texturing. Prerequisite: CS 352.

**481 Advanced Computer Architecture (3).** Organization and Function of Memories, Direct Access Storage Devices, Central Processor Units, and Sequential Storage Devices, Classical Von Neuman Architecture. Prerequisite: CS 281 and CS 282.

**490 Special Topics (1-3).** Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

**490BC Special Topics (1-3).**

**490DD Special Topics (1-3).**

**490NA Special Topics (1-3).**

**490OS Special Topics (3).**

**490R Special Topics (1-3).** Selected topics in specific areas of computer science. May be repeated for credit when the topic varies.

**490SD Special Topics (3).**

**490SK Special Topics Computer Science (1-3).**

**490WI Special Topics (1-3).**

**490WN Special Topics (1-3).**

**490WW Special Topics (1-3).**

**490XX Special Topics (1-3).**

**491 Internship (0-6).** Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/nocredit only and students must be in good standing with at least 18 credit hours of CS/IT counting towards the degree. Registration by consent number only; petition forms for CS/IT491 Internships are available in the office of CSEE Division and on the web. Prerequisite: Junior level or above and consent of instructor. Offered: Every Semester Restrictions: None

**493 Introduction To Computability, Formal Languages And Automata (3).** Context-free grammars, finite state acceptors and regular languages, pushdown automata, Turing machines, Church's Thesis, primitive recursive functions, partial recursive functions and computational complexity. Prerequisite: CS 291.

**494R Applied Stochastic Models (3).** Review of basic probability, Poisson counting process, Markovian birth and death processes and elementary queuing theory. Basic models commonly used in computer and telecommunication networks, both in discrete time and continuous time. Stochastic processes as needed for communication theory; Power Spectral Density and Cross Correlation. Prerequisite: CS 394R or permission from instructor Offered: Fall Semester Restrictions: None

**497 Directed Readings (1-3).** Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration.

**498 Research Seminar (1-3).** Undergraduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration.

**499 Undergraduate Research (1-3).** Completion of project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration.

## Conservatory Courses

**101C Voice Class I (2).** A course in the fundamentals of correct voice productions; breathing, breath control, study of vowel forms and consonants. Elementary songs. Poise, posture, and stage presence. This course covers two points of view: development of the student's own voice and the pedagogy of voice-class instruction. A voice audition is required before registration.

**103 Fundamentals Of Music Theory (2).** An introduction to the rudiments of music theory and basic musicianship skills. Designed primarily as a review course for Conservatory students. Non-music majors may also enroll in this course.

**104 Jazz Improvisation I (2).** A systematic approach to the art of jazz improvisation. Emphasis upon performance as well as analysis. Prerequisite: Cons. 122 or consent of the instructor.

**105 Jazz Improvisation For Non-Jazz Majors (2).** This course is designed to provide the non-Jazz major with fundamental concepts needed to compose spontaneously. Blues and basic jazz forms are covered through performance and recordings. Offered: Fall

**108 Beginning Piano For Non-Music Majors (2).** A class for non-music majors to acquire basic piano skills. Popular arrangements and group techniques designed to encourage students to play the piano for pleasure. Prerequisite: Consent of the instructor.

**110 Keyboard Skills I (2).** Group instruction in beginning techniques of reading, harmonization, transposition, and improvisation, including an introduction to MIDI technology.

**114 Piano Sight-Reading I (1).** Laboratory practice in sight-reading for piano majors.

**115 Piano Sight-Reading II (1).** Continuation of Cons. 114.

**120 Music Appreciation (3).** Designed for the general University student with little or no music background and required for Dance Majors (no credit for music majors). An emphasis on the basic elements of music and the historical and stylistic periods, illustrated by examples from different genre, such as instrumental and vocal ensembles, large and small, solo literature for voice and instruments, and dance. Three class sessions a week with frequent live performance and guest speakers.

**121 Music Theory I (3).** A course presenting the elementary melodic, rhythmic, and harmonic elements of music through part-writing and analysis. The vocabulary for the first semester includes traditional usage and analysis of triads and their inversions, nonharmonic tones, introduction to chords of the seventh, and elementary modulation.

**122 Music Theory II (3).** Continuation of Cons. 121. Prerequisite: Cons. 121 or equivalent.

**123 Keyboard Skills II (2).** Group instruction in intermediate-level reading, harmonization, transposition, accompaniments, and improvisation in a variety of styles. Introductory techniques in MIDI technology are also included.

**125 History And Development Of Rock And Roll (3).** Designed for students with little or no music background, the course is an exploration of American popular music from early Rhythm and Blues and Country Western through Woodstock. Examines in detail the social/racial issues most important to the music and the cultural history of twentieth-century America. The course features online video lectures and numerous interviews with professors and scholars from other disciplines, presenting a perspective of the influence of this music on nearly every area of American life. Students are required to participate in online discussion groups as part of the class. Music majors may enroll for music elective credit.

**126 Introduction to World Music (3).** An introduction to global music traditions and their cultural contexts. Open to all students.

**127 Music And Film (3).** Designed for the general university student, this course will survey the use of music in cinema. It will include sections on music, technology, the film medium and the various ways in which music adds to the cinematic experience. Music majors may enroll for elective credit. No prerequisite.

**128 Introduction To Music Education/Music Therapy (1).** An introductory course for all BME Choral and Instrumental majors, all music therapy majors, and all students who want general information about the field of music education and music therapy. Includes information on the profession and the role of music education in a school curriculum, as well as the roll of music therapy in various settings.

**129A Ear Training And Solfege (1).** Study of tonal aural problems and rhythms. Introduction to movable do solfege.

**129B Ear Training And Solfege (1).** Continuation of Cons. 129A. Prerequisite: Cons. 129A.

**130 Music Therapy Techniques: Adults (3).** Class demonstration and participation in use of materials for psychiatric and geriatric clients. Required of all BME Therapy majors.

**133 Beginning Composition I (3).** Introduction to the compositional process, including notation, calligraphy and score preparation, styles and forms, and related topics. A weekly one-hour lab is required.

**133A Beginning Composition For Non-Composition Majors I (2).** An introductory course in music composition, with exercises in instrumentation, notation, orchestration, form, melodic construction, harmony, counterpoint, and rhythm. Discussion and analysis of current works, trends and techniques in music composition. Final project is an original composition. A weekly one-hour lab is required.

**133B Beginning Composition For Prospective Composition Majors (3).** A class for students wishing to work toward major status in the music composition program. Exercises and projects as in 133A, with an extra hour per-week of in-depth, guided exercises and portfolio development. Prerequisite: Permission of the instructor via evaluation of a composition portfolio-in-progress on the first day of class. A weekly one-hour lab is required.

**134 Beginning Composition II (3).** Continuation of Cons. 133. Prerequisites: Cons. 121 and Cons. 133 or consent of the instructor. A weekly one-hour lab is required.

**134A Beginning Composition For Non-Composition Majors II (2).** Prerequisites: Cons. 133A or consent of the instructor via portfolio evaluation on the first day of class. A weekly one-hour lab is required.

**134B Beginning Composition For Prospective Composition Majors II (3).** Continuation of 133B. Exercises and projects as in 134A., with an extra hour per-week of in-depth, guided exercises and portfolio development.

Prerequisites: Cons 133B or consent of the instructor via portfolio evaluation on the first day of class. A weekly one-hour lab is required.

**150 Introduction To Music Literature (3).** An introduction to the major composers, literature, and forms of the various historical periods. Bibliographical sources and library procedures as well as extensive listening requirements are included.

**154 Music Listening Laboratory (1).** "Listening" includes works of all major periods and styles in live performance. May be repeated for credit. Required for all Conservatory music majors. Non-music majors encouraged to enroll.

**154A Music Listening Laboratory: Non-Western Cultures (1).** The course is a study of music in culture and introduces undergraduate students to living music, musical instruments, and dance of oral traditions and music of high cultures outside the limits of urban European art music through discussion, performance, and observation. Required for all Conservatory music majors. Non-music majors are encouraged to enroll.

**160 Wind And Percussion Laboratory (1).** Designed for the student working at a beginning level of performance on wind and/or percussion instruments. Instruction will focus on basic playing techniques and pedagogical issues. Enrollment for credit not required if student is concurrently enrolled in CONS 373 (C,D,E,F,H, OR I), 381, 383, or 386. Prerequisite(s): Permission of instructor.

**161 String Instrument Laboratory (1).** Designed for the student working at a beginning level of performance on string instruments. Instruction will focus on basic playing techniques and pedagogical issues. Enrollment for credit not required if student is concurrently enrolled in CONS 373 (A&B), 381, 383, or 386. Prerequisite: Permission of instructor.

**171 Foreign Language For Singing I (2).** A course for Italian and German diction. Emphasis is placed on oratorio rather than conversational pronunciation. Required for BME Choral and BM voice.

**172 Foreign Language For Singing II (2).** A course for French and Latin diction. Emphasis is placed on oratorio rather than conversational pronunciation. Required for BME Choral and BM voice.

**180 Music In Special Education (3).** Class demonstration and participation in the use of music materials for handicapped children.

**185A Foreign Language For Singing I (2).** A course for English and Latin diction for oratorio performance with detailed study of the International Phonetic Alphabet. Required for BM voice.

**185B Foreign Language For Singing II (2).** A course for Italian diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

**185C Foreign Language For Singing III (2).** A course for German diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

**185D Foreign Language For Singing Iv (2).** A course for French diction. Emphasis is placed on sung rather than conversational pronunciation. Required for BM voice.

**199 Kangaroo Band (1).** This band will provide music for men's and women's basketball games. Members are required to attend all home games. Open to all University students by audition.

**202 Basic Techniques Of Audio Recording I (3).** A study of the philosophy, history, and development of audio recording. Practical application of recording techniques and development of recording skills.

**203 Basic Techniques Of Audio Recording II (3).** Continuation of study of recording techniques and development of recording skills. Prerequisite: Cons. 202 or consent of the instructor.

**204 Jazz Improvisation II (2).** Prerequisite: Cons. 104 or consent of the instructor.

**205 Applied Jazz Studies (2).** Unlimited repeatability. This weekly private lesson includes the study of advanced concepts used to compose spontaneously. Includes the analyses of harmonic progressions, applications of scales and rhythmic interpretation. Prerequisite: Jazz majors with the approval of the instructor.

**210 Clinical Experience (1).** One hour minimum of supervised clinical experience in music therapy and one hour of seminar per week, which includes practice in developing a treatment plan and writing clinical progress reports. All clinicals regardless of contact hours must have a minimum on-site 10 week duration.

**210A Clinical Experience: I (1).** Must be taken concurrently with Cons 260

**210B Clinical Experience: II (1).** Primarily assists the site coordinator with some leadership responsibilities.

**210C Clinical Experience: III (1).** Equal assisting and leading responsibilities on-site

**210D Clinical Experience: Iv (1).** Some assisting and primarily leading responsibilities on-site.

**210E Clinical Experience: V (1).** Must be taken concurrently with Cons 408

**210F Clinical Experience Vi (1).** Must be taken concurrently with Cons. 409.

**214 Piano Sight-Reading III (1).** Laboratory practice in sight-reading for piano majors. Prerequisite: Cons. 115.

**215 Piano Sight-Reading Iv (1).** Laboratory practice in sight-reading for piano majors. Prerequisite: Cons. 214.

**221 Music Theory III (3).** Continuation of Cons. 122. Introduction to nineteenth century harmony. Prerequisite: Cons. 122.

**222A Music Theory Iv (3).** Continuation of Cons. 221. An introduction to 20th century analysis and techniques, focusing on popular music and jazz styles. Study in performing, compositional skills, and related ear-training. Prerequisite: Cons. 221.

**223 Keyboard Skills III (2).** Group instruction in advanced techniques of reading, harmonization, transposition, and improvisation, with extended-range accompaniments. Techniques for practicing using MIDI technology are also included.

**229A Ear Training And Solfege (1).** Continuation of Cons. 129B. Prerequisite: Cons. 129B.

**229B Ear Training And Solfege (1).** Continuation of Cons. 229A. Prerequisite: Cons. 229A.

**233 Intermediate Composition I (3).** Continuation of Cons.134. A weekly one-hour lab is required. Prerequisites for composition majors: Cons. 134 and Cons. 122 or consent of the instructor. Prerequisites for non-majors: a significant composition portfolio (to be submitted on the first day of class for consideration).

**233A Beginning Composition for Non-Composition Majors I (2).** Continuation of Cons. 134A. A weekly on-hour lab is required. Prerequisite: Cons. 122 and Cons. 134A, or consent of the composition faculty via portfolio submission on the first day of class.

**234 Intermediate Composition II (2).** Continuation of Cons. 233. Prerequisites: Cons. 221 and Cons. 233 or consent of the instructor. A weekly one-hour lab is required.

**235 Techniques Of Electronic Music I (3).** A thorough introduction to the instruments and techniques of electronic music production. A hands-on approach to sound synthesis, processing and recording both analog and digital equipment. Three one-hour lectures/demonstrations per week; 1 1/2 - 2 hours personal and/or group studio time per week scheduled. Class recital of composed works each semester.

**236 Techniques Of Electronic Music II (3).** Continuation of Cons. 235. Focus is on digital synthesis, sampling and sequence techniques. Three one-hour lectures/demonstrations per week; 2-2 1/2 hours of personal studio time per week scheduled. Class recital of composed works each semester. Prerequisite: Cons 235 or consent of the instructor. Offered: Winter.

**260 Clinical Foundations Of Music Therapy (3).** This course is intended to prepare students majoring in music therapy for clinical experiences in the community. Students learn and develop skills related to the treatment process. Prerequisites: Students must take concurrently with Cons 210A, Clinical Experience I

**270 Marching Band Technique (1).** A study of organization and formations involved for use with varsity and military bands.

**285 Elementary Music Methods (3).** Laboratory course for classroom teachers in which principles of instructional design will be applied to music teaching. Students who have extensive music background may elect Cons. 385 in place of Cons. 285.

**301B Men's Chorus (1).**

**301C Bella Voce (1).**

**301D Connection (1).**

**301E Opera/Musical Theatre Ensemble (1).** An introduction to opera/musical theatre performance techniques for chorus. Major literature for opera choruses will also be surveyed. Members of this class will be required to perform in an Opera or Musical Comedy chorus. Prerequisites: None.

**301G Ensemble For Composers (1).** Observation, score analysis, non-performance participating during a semester's rehearsals and performance by a participating Conservatory ensemble. Students a.) keep journals that are periodically reviewed and graded by the composition faculty, and b.) meet with composition faculty periodically to review and discuss issues raised in the ensemble settings. Prerequisite(s): Successful completion of four semesters of major ensemble participation as a performer, and either Cons. 234 or permission of the composition faculty.

**301H Musica Nova (1).**

**302 Orchestra (2).** Required of all qualified music majors and open to all interested students by audition.

**303B Jazz Band (1).**

**303C Percussion Ensemble (1).**

**303D Accordion Orchestra (1).**

**303E Jazz Workshop (1).** Prerequisite: Consent of the instructor.

**303G Jazz Orchestra (1).**

**304 Jazz Improvisation III (2).** Prerequisite: Cons. 204 or consent of the instructor.

**305A Principles Of Chamber Music (1).** Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

**305B Principles Of Chamber Music (1).** Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

**305C Principles Of Chamber Music (1).** Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

**305E Principles Of Chamber Music (1).** Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coaching.

**305G Principles Of Chamber Music (1).** Collaborative music-making in groups of like-instruments (piano ensembles, flute quartets, sax quartets, sax quartets, etc., plus beginning experiences in string quartets, woodwind and brass quintets, etc.). Weekly coachings.

**305H Chamber Orchestra (1).**

**305J Chamber Music Guitar (1).**

**306A Conservatory Wind Ensemble (2).**

**306C Wind Symphony (2).** The Wind Symphony comprises wind, brass and percussion students of the highest level in the Conservatory and performs repertoire of the highest caliber available to the medium. The curriculum is well balanced between traditional, modern, and chamber music and requires advanced musical and technical facility amongst its members. The class is open to all UMKC students by audition.

**307A Canticum Novum (1).**

**307B Conservatory Chorale (2).**

**308A Conservatory Concert Choir (1).**

**309 Audio Recording III (3).** Continuation of study of recording techniques and music production skills. Prerequisite: Cons. 203.

**310 Keyboard Skills Iv (2).** Group instruction designed to fulfill the Piano Proficiency requirement. Students are required to demonstrate sight reading, harmonization, transposition, ear playing, improvisation, and accompanying skills at advanced levels. Midi technology is used with each of the skill requirements.



- 314 Seminar In Chamber Music (2).** Potential enrollees must audition. Those accepted from a pool of players from which chamber groups are drawn each semester. Groups must rehearse four hours a week, and will receive a one-hour coaching each week. All enrollees will also take part in a periodic chamber music master class. This class, two hours in length, will be taught by various members of the core chamber music faculty and by guest artists.
- 315 Popular Piano Styles (1).** Course covers techniques of leading piano stylists from early ragtime to the present. Includes listening, analysis, arranging, and performing. Prerequisite: Completion of Piano Proficiency Exam or consent of the instructor.
- 316 Popular Guitar Styles (1).** Course covers techniques of leading guitar styles from the 1920's to present. Includes listening, analysis, transcription, and performing. Prerequisite: Completion or credit by exam of CONS 373G, or by consent of instructor.
- 318 Jazz Ear Training And Listening (2).** This course offers the student basic fundamental techniques needed to improve aural perceptions in both the translation of hearing into writing and the performance of reading into singing and playing in the jazz idiom. Introduction and practice in singing, aural recognition and writing of intervals and short, simple melodies. Also including rhythm, memory and improvisational drills. Prerequisite: Cons. 329 Advanced Ear Training
- 319 Opera Role Performance (1).** Preparation, rehearsal and performance of a role in an opera or music theatre production at UMKC. Credit for performance as part of the ensemble/chorus may be received from this course after the two chorus requirements are completed as part of the choral requirements. Credit for non-performing duties such as assistant directing or assistant stage managing may be available with approval of opera/music theatre staff. Prerequisite: Audition (generally held during the first week and a half of classes in the fall).
- 320 Music Theatre Role Performance (1).** Preparation, rehearsal and performance of a role in an opera or music theatre production at UMKC. Credit for performance as part of the ensemble/chorus may be received from this course after the two chorus requirements are completed as part of the choral requirements. Credit for non-performing duties such as assistant direction or assistant stage managing may be available with approval of opera/music theatre staff. Prerequisite: Audition (generally held during the first week and a half of classes in the fall).
- 323 Form And Analysis I (2).** Application of theoretical principles of analysis to Western Art music. Prerequisite: Cons. 221.
- 325 Piano Pedagogy I (2).** Survey of beginning methods and materials. Introduction to learning theories and teaching strategies for individual and group instruction.
- 325A Piano Pedagogy - Supervised Teaching I (1).** Supervised practicum includes evaluation of teacher effectiveness and student musical growth. Must be taken concurrently with Cons. 325.
- 326 Piano Pedagogy II (2).** Comparison and evaluation of selected method series. Survey of elementary repertoire. Continuing study of the learning process. Philosophical and business aspects of the teaching profession. Prerequisite: Cons. 325.
- 326A Piano Pedagogy - Supervised Teaching II (1).** Supervised individual and group teaching. Must be taken concurrently with Cons. 326. Prerequisite: Cons. 325A.
- 329 Advanced Ear Training (2).** Study of atonal and highly chromatic tonal aural problems, complex rhythms, and recognition of instruments. Prerequisite: Cons. 222 or 222B or equivalent. May be repeated for credit.
- 330 Jazz Composition (3).** This course encourages composers to work towards developing an individual writing style and controlling the melodic line in the Jazz idiom. It includes writing assignments, and end-of-the-semester writing projects that are performed by UMKC Jazz ensembles and/or top Kansas City professionals.
- 331 Orchestration I (2).** An introduction to the instruments of the symphony orchestra and rudiments of scoring. Classification of instruments and learning to write for all transposing instruments. Prerequisites: Cons. 222 or 222B or consent of an instructor or Music theory I-IV.
- 331A Orchestration I (3).** An introduction to the instruments of the symphony orchestra and rudiments of scoring. Meets concurrently with Cons. 331; the third credit hour is required for music composition and music theory majors. Prerequisites: Cons. 222 or 222B or consent of an instructor of Music Theory I-IV.
- 333 Advanced Composition (3).** Prerequisites: Cons. 222 or 222B and Cons. 234 or consent of the instructor. May be repeated for credit.
- 335 Electronic Music Composition (3).** Creative, original composition of music in diverse styles utilizing the full range of equipment and techniques available. A minimum of 3-4 hours of personal studio time per week scheduled. Concert of composed works each semester. May be repeated for credit. Prerequisite: Cons 236 or consent of instructor.
- 349 Jazz Style And Analysis (2).** This class will be an in-depth study of the contributions of one or a select group of outstanding jazz composers, arrangers, performers, focusing on the solo and compositional output and specific innovations associated with that individual or group. May repeat for credit. Content will vary from semester to semester. Prerequisite: Cons 353A History and Development of Jazz I
- 351 History Of Music In Western Civilization I (3).** A chronological study of music in Western civilization with emphasis on periods and styles from early times to the death of Bach. Outside listening required. Prerequisite: Cons. 150 and successful completion of Cons. 122 highly recommended, or by consent of the instructor.
- 351WI History of Music in Western Civilization I - Writing Intensive (3).** George Santayana once reasoned that if you cannot remember the past, you are condemned to repeat it. If that is the case, then as music students you all must ask how the music of the past can inform and change the music you make and make you better musicians. This class examines selected works from Western musical history and explores the biographical, stylistic, and aesthetic issues they raise. It seeks to hone your analytical skills through knowledge of stylistic features while introducing you to musical debates that still rage today. Prerequisite: Must have a grade of "A" in Cons 150, Completed English 110 & 225, & Pass the WEPT.
- 352 History Of Music In Western Civilization II (3).** A chronological study of music in Western civilization from 1750 to the present. Outside listening required. Prerequisite: Cons. 351.
- 352WI History Of Music In Western Civilization II-Writing Intensive (3).** A chronological study of music in Western Civilization from 1750 to the present. Outside listening and writing projects required. Prerequisites: Cons 150 Pass the WEPT GPA of 3.5 or higher Offered: Most semesters, at least once every academic year
- 353A History And Development Of Jazz I (3).** History of Jazz from its beginning through the present, using recordings, films and musical examples. Emphasis on the major historical trends in Jazz, including Early Jazz, Ragtime, Dixieland, Swing, Bebop, Cool Jazz, Hard Bop, Free Jazz, Jazz-Rock Fusion and modern developments. This course makes use of the Marr Sound Archive, and is appropriate for all students throughout the UMKC Campus.
- 353B History And Development Of Jazz II (3).** This course concentrates on the lives, bands, and works of people who have been instrumental in the development of the various jazz styles. In-depth analysis of major jazz figures including Louis Armstrong, Duke Ellington, Count Basie, Charlie Parker, Dizzy Gillespie, Thelonious Monk, Clifford Brown, Sonny Rollins, John Coltrane, Miles Davis, Wayne Shorter, and many others. This course is most appropriate for jazz Studies majors, and other Conservatory students with some jazz background and knowledge of the fundamentals of music. This course makes use of the Marr Sound Archive. Prerequisite: Cons 353A and consent of the instructor.
- 357 Choral Literature (1).** Includes listening and analysis as they relate to programming and educational issues in choral ensemble setting. May be repeated for credit. Prerequisites: CONS 380 or permission of instructor.
- 358 Band Literature (1).** Includes listening and analysis as they relate to programming and educational issues in wind/percussion ensemble settings. May be repeated for credit. Prerequisites: CONS 381 or permission of instructor.
- 359 String Literature (1).** Includes listening and analysis as they relate to programming and educational issues in string ensemble settings. May be repeated for credit. Prerequisites: CONS 381 or permission of instructor.
- 360 Introduction To Jazz, Improvisation, And Popular Styles (1).** A laboratory course for music students which includes a review of the basic history and concepts of jazz and other popular musical styles as well as an introduction to improvisational techniques.
- 361 Piano Literature I (Pre-Classical) (2).** A survey of the development of keyboard literature from the fourteenth century through the Baroque. Special attention given to the development of keyboard forms, performance practices, idiomatic styles, and stringed keyboard instruments that precede the piano.
- 368 Orchestral Literature for Trumpet (1).** Intended to introduce students to the standard repertoire for orchestral trumpet; class meets once weekly for an hour. Students will be expected to prepare and play approximately a dozen works per semester, rotating parts in a full trumpet section. Prerequisite: Permission of faculty
- 370 Choral/Vocal Techniques (2).** Laboratory applications of vocal pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in singing and observation activities in a large ensemble setting with an emphasis on critical analysis of technical and pedagogical issues. Prerequisites: CONS 380 or permission of instructor.
- 373A Instrumental Techniques Violin-Viola (1).**
- 373B Instrumental Techniques Cello-Double Bass (1).**
- 373C Instrumental Techniques Flute And Clarinet (1).**

**373D Instrumental Techniques Trumpet-Horn (1).**

**373E Instrumental Techniques Percussion (1).**

**373F Instrumental Techniques Oboe-Bassoon (1).**

**373G Instrumental Techniques Guitar (1).**

**373H Instrumental Techniques Trombone-Tuba (1).**

**373I Instrumental Techniques Saxophone-Wind Review (1).**

**373N Survey Of Wind And Percussion Instruments (1).** An overview of basic wind and percussion instruments used in public school settings. Includes embouchure formation, hand position, sound production, and pedagogical issues encountered in beginning situations.

**373P Survey Of String Instruments (1).** An overview of basic string instruments used in public school settings. Includes hand position, bowing, sound production, and pedagogical issues encountered in beginning situations.

**375A Special Percussion Methods For Music Therapy Students (1).** Study of classroom and individual percussion techniques applicable to situations found in the field of music therapy. Prerequisites: None.

**375B Special Percussion Methods For Dance Students (1).** A class of percussion techniques which stresses hand drumming skills and advanced rhythmic counting and analysis. Prerequisites: None.

**376 Accompanying I (2).** A course for piano majors designed to give experience in accompanying vocal and instrumental soloists and choral groups as well as experience in the keyboard skills of open score reading, transposition, harmonization, and reading of figured bass. Course includes lectures by members of the voice and instrumental faculty. Two class sessions and two hours of assigned accompanying per week.

**377 Accompanying II (2).** Continuation of Cons. 376.

**378 Band Ensemble Techniques (2).** Laboratory applications of wind/percussion pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in playing and observation activities in a large ensemble setting with an emphasis on critical analysis of technical pedagogical issues. Prerequisites: CONS 381 and completion of large ensemble requirement or permission of instructor.

**379 String Ensemble Techniques (1).** Laboratory applications of string pedagogy, ensemble rehearsal technique, literature selection, and performance practice. Students will participate in playing and observation activities in a large ensemble setting with an emphasis on critical analysis of technical and pedagogical issues. Prerequisites: CONS 381 or permission of instructor. Registration concurrent with final semester of large ensemble requirement.

**380 Basic Conducting - Choral (2).** A study of the basic techniques of all rhythms, patterns, subdivision of beats, dynamics, starting, stopping, and giving cues through conducting in class. Elementary study of the score as to form and harmonic content will be discussed. Prerequisite: Cons. 222A or 222B.

**381 Basic Conducting - Instrumental (2).** A study of the basic techniques of all rhythms, patterns, subdivision of beats, dynamics, starting, stopping, and giving cues through conducting in class. Elementary study of the score as to form and harmonic intent will be discussed. Prerequisite: Cons. 222A or 222B.

**382 Choral Conducting (2).** A study of choral techniques including voice tryouts, placement, attack, release, blend, vocal development, diction, and rehearsal techniques through actual experience of conducting in class. Prerequisite: Cons. 380. Mus. Ed.-Choral majors must take concurrently with Cons. 387.

**383 Instrumental Conducting (2).** A study of instrumental conducting techniques through actual conducting situations in instrumental groups. Primary objective will be the study of instrumental rehearsal techniques. Prerequisite: Cons. 381. Mus. Ed.-Instrumental majors must take concurrently with Cons. 386.

**385 Elementary Music Methods For Music Majors (3).** Basic principles of curriculum planning for music education, investigation of current methods and approaches, and practical teaching experience in laboratory setting. For music majors and non-majors who have extensive musical backgrounds. Prerequisite: Cons. 222A or 222B.

**386 Secondary Music Methods - Instrumental (2).** The organization, scheduling and feeder-system techniques of beginning band and orchestral programs through high-school level instruction. Areas of study will include curriculum, pedagogical techniques, library facilities, bidding procedures, basic instrument techniques. To be taken concurrently with Cons. 383.

**387 Secondary Music Methods - Choral (2).** The organization of junior and senior high school choral classes to include methods, materials and program building. To be taken concurrently with Cons. 382.

**391 Basic Piano Technology (3).** Introduces the art of tuning by ear, including the discussion of historical temperaments that preceded equal temperament; explores the action mechanism and its influence on the production of musical tone. Prerequisite: Cons. 122 or consent of the instructor.

**404 Jazz Improvisation Iv (2).** This class is a continuation of Jazz Improvisation III. This course features in-depth analyses of the blues and free improvisation focusing on rhythm changes and bi-tonal/polytonal chords. Course includes an in-depth analysis of styles from Dixieland to contemporary jazz. A strong emphasis is placed on solo construction and development of individual styles. Prerequisite: Cons 304 Jazz Improvisation III or consent of the instructor.

**405 Introductory Foundations In The Arts (3).** The course will concentrate on the development of a philosophical, historical and social model to assist in understanding the complexities, strengths and problems of the arts in the context of present day education.

**406 Influence Of Music On Behavior (3).** Explores the physiological, psychological and social influences of music on behavior. Although for music therapy practice it may also be of interest to other music majors and/or allied health professionals. Prerequisite: Completion of applied music 202 (2 hours) required of music majors. Completion of Cons 128, 130 & 180 for music therapy majors or consent of the instructor.

**407 Audio Intern Program (1-3).** Practical recording experience interning with Conservatory recording and music production labs with one lecture weekly. Prerequisite: consent of the instructor.

**408 Music In Therapy:Adults (3).** Lecture and clinical demonstration of theory and practice of music therapy with adult clients. Prerequisites: Must take concurrently with Cons 210E, Clinical Experience V.

**409 Music In Therapy: Children (3).** Lecture and clinical demonstrations of theory and practice of music therapy with children. Prerequisites: Must take concurrently with Cons 210F, Clinical Experience VI.

**410 Internship (1-4).** 1040 hours of supervised clinical experience at a site approved by the American Music Therapy Association, to be taken after all other course work for the music therapy degree is completed.

**411A Field Experience In Music (1).** To introduce music students to a critical examination of the complex nature of teaching, learning, children, and the music classroom/ensemble setting. Students will be expected to spend 30 hours observing, participating, planning and teaching in an assigned music classroom environment during the semester. Prerequisite: Permission of faculty

**411B Field Experience In Music (1).** To introduce music students to secondary school settings and further develop observation, planning and teaching skills. Students will be expected to spend 30 hours in a middle/ junior high school music classroom and 30 hours in a high school music classroom for a total of 60 hours during the semester. To be taken concurrently with CONS 386 OR 387. Prerequisites: Cons 411A or permission of faculty

**411C Field Experience In Music (1).** To introduce music students to elementary school music settings and continue to refine observation, planning and teaching skills in secondary school music settings. Students will be expected to spend 30 hours in an elementary school music classroom and 30 hours in either a middle school/junior high or high school music classroom. To be taken concurrently with CONS 385. Prerequisites: Cons 411B or permission of faculty

**412A Student Teaching Music In Elementary School (4-12).** Observation, planning and teaching in an elementary music classroom setting. Students will be expected to spend a minimum of seven weeks teaching full-time under supervision. Prerequisite: Cons 411C

**412B Student Teaching Music In Secondary School (4-12).** Observation, planning and teaching in a middle school/junior high or high school music classroom setting. Students will be expected to spend a minimum of seven weeks teaching full-time under supervision. Prerequisite: Cons 411C

**417 Opera Workshop (2).** Introduction to opera and opera performance techniques. Class will include performance of opera scenes. Prerequisite: consent of the instructor. May be repeated for credit.

**417A Singing/Acting Training for Music Theatre (2).** Specific training especially tailored for incoming undergraduate BA in Music/Theatre Concentration students and others interested in Introductory acting and singing/acting techniques. Recommended for Freshman or Sophomore performance track students. Prerequisite: Admission into the BA in Music/Theatre Concentration program OR permission of Instructor. An audition may be required.

**417B Singing/Acting Training for Opera (2).** Specific training especially tailored for undergraduate Vocal Performance majors and others interested in introduction Singing/Acting techniques for opera. Recommended for singers in their sophomore or junior years. This course IS NOT OPEN to Freshmen. Prerequisite: Admission into the BM vocal performance degree program OR permission of Instructor. An audition may be required.

**417F Advanced Opera Workshop (2).** Singer/Actor techniques, dramatic preparation of arias, audition techniques, recitative and role study. Prerequisite: Undergraduates: Successful completion of Cons 417B and permission of Voice teacher highly recommended, as several areas and a role study project will be required for work in class.

**421A Music Theory Review For Graduate Students (1-3).** An intensive review with emphasis placed on analysis. Open to graduate students only. MAY NOT BE USED ON A PLANNED PROGRAM.

**421B Ear Training And Solfege For Graduate Students (1-3).** An intensive review of ear training and sight singing. Open to graduate students only. MAY NOT BE USED ON A PLANNED PROGRAM.

**423 Business Jazz And Commercial Music (3).** An introduction to the various elements of the music industry, including production, marketing, unions, contracts, broadcasting, licensing agreements and copyrights.

**424 Acoustics (3).** Study of the propagation of sound, the psychology and physiology of hearing, the acoustics of instruments, and of rooms, and tuning systems. Available for graduate credit.

**425A Arranging For Choral Groups (2).** Practice in transcribing vocal music of the current pop idiom. Analysis and writing in contemporary harmonic idioms. Stylistic analysis of solo and choral writing in operettas and musical plays. Scoring for mixed voices, men's voices, and women's voices. Prerequisite: Cons. 222A or 222B.

**425B Arranging Instrumental (2).** Prerequisite: Cons. 222 or 222B or recommendation of an instructor of Music Theory I-IV.

**426B Jazz Arranging For Small Ensembles (2).** This course will teach the art of Calligraphy as well as the techniques of arranging and orchestration for small jazz ensembles for up to five horns. The course will also include an in-depth study of basic voicings, instrumental sonorities, and some extended forms using intensive listening and score study. UMKC combos, or top Kansas City professionals, will perform final assignments. Prerequisite: Cons. 222 Music Theory IV or consent of the instructor.

**426D Jazz Arranging For Big Bands (2).** This course is a continuation of Jazz Arranging for small ensembles. It will cover the basics of arranging and orchestration techniques for big bands. It includes an in-depth study of basic voicing and instrumental sonorities using intensive listening and score study. The students will have a chance to hear their final arrangements performed at the end of the semester by the Concert Jazz Band. Prerequisite: Cons 426B

**427 18Th Century Counterpoint I (2).** Analysis and writing in 18th century style and forms including canon, invention and fugue. Prerequisite: Cons. 222 or 222B or recommendation of an instructor of Music Theory I-IV.

**428 Contemporary Harmonic/Contrapuntal Style (3).** Analysis and writing in contemporary styles. Prerequisite: CONS 222 or recommendation of an instructor of Music Theory I-IV

**431 Orchestration III (2).** A course for composition majors. A detailed study of the scores of Debussy, Ravel, Bartok, Stravinsky, Berg, and others, with their application. Combining the full orchestral forces with voices, solo and choral. May be repeated for credit. Prerequisite: Cons. 331A or consent of the instructor.

**433 Composition Recital (3).** Preparation and performance of the student's original compositions at one or more concerts sponsored by UMKC Conservatory of Music, with a total of 50 to 60 minutes performance time. Prerequisite: 6 hours of Cons. 333, approval of major status by the Composition Division, and consent of the instructor.

**434CC The Practice and Study of Creativity (3).** A team-taught, multidisciplinary cluster course for undergraduate students that fosters awareness of the nature and power of students' creativity. Approximately one third of the class covers current literature on the creative process in general and in the arts. The remainder of the class utilizes the arts as a catalyst for students to design and implement creative group and individual projects that foster communication, remove barriers to creativity and combine creativity with discipline toward a common result. There are neither prerequisites nor expectations of arts-related abilities. The ideal class consists of 4-6 students from each of 3 areas - Arts; Science/Social Science/Business/Law; and Humanities/Education/General Studies.

**435 Psychological Foundations Of Music (3).** The study of the psychological aspects of music including perception, cognition, affect, and preference. An introduction measurement and experimental research including statistical techniques. Prerequisite: Cons 260 or permission of instructor

**437 Computer Literacy For Music Teachers (3).** Computing skills for the music teacher. Study of the computer as a tool for music majors who will teach in public school music classes, direct ensembles, or teach at the college or university level. Hands-on practice with file creation and editing, graphics and character set generation, data analysis, preparation of computer based instruction, and data retrieval. for upper level undergraduate and graduate students.

**440 Jazz Keyboard Techniques I (2).** Class piano study of accompanying in basic jazz styles; technique (arpeggiated seventh chords, major, minor and diminished); scales (pentatonic, dorian, phrygian, lydian, mixolydian); advanced harmonizations and resolutions in all major keys; modulations from full diminished seventh chords; introduction to American song literature for sight reading and performance (Arlen, Ellington, Gershwin, etc.);

harmonization at sight from chord sheets. Prerequisite: Completion of piano proficiency or consent of instructor.

**441 Jazz Keyboard Techniques II (2).** A continuation of Conservatory 440. Prerequisite: Conservatory 440 or consent of the instructor.

**449 Introduction To Arts Administration (2).** This course is designed to be an overview of topics of importance to arts organizations including organizational culture, leadership, marketing, media relations, fundraising, facilities management, and audience building. Students will review current literature in this area and develop a project related to their particular area of interest.

**449A Arts Administration Practicum (1).** This course is designed to give practical experience for students in the Introduction to Arts Administration class. The student will receive a placement with an arts organization to be determined by the instructor.

**457 Vocal Literature I (2).** Literature for the solo voice. A course covering the literature from 1600 to present times, illustrated by recordings and members of the class and the instructor. Prerequisite: upper division standing and consent of the instructor. Requirement for B.M. voice majors.

**458 Vocal Literature II (2).** A continuation of Cons. 457.

**459 Advanced Choral Literature (3).** A survey of choral literature including the music of all periods, both sacred and secular, in both small and large forms. May be repeated for credit.

**461 Piano Literature III (Romantic) (2).** A survey through analysis, reading, listening, and performance of piano repertoire during the Romantic Period, culmination in the early 20th Century.

**462 Piano Literature II (3).** Survey of composers and literature for the piano from the late-eighteenth through the twentieth centuries.

**464A Wind And Percussion Literature Percussion (2).** A study of solo and ensemble literature for percussion.

**469 Organ Literature II (2).** A survey of organ music from 1750 to the present.

**470A Introduction To Pedagogy And Literature Woodwinds (3).** A study of teaching techniques and materials and of solo and ensemble literature. Senior status required.

**470B Introduction To Pedagogy And Literature Brass (3).** A study of teaching techniques and materials and of solo and ensemble literature. Senior status required.

**470C Introduction To Pedagogy And Literature Percussion (3).** A study of teaching techniques and materials and of solo and ensemble literature. Senior status required.

**470D Introduction To String Literature And Pedagogy (3).** A study of teaching techniques and materials and solo and ensemble literature. Senior status required.

**471 Jazz/Commercial Music Pedagogy (2).** This course is designed to develop skills in the teaching of jazz and commercial music. Students will be exposed to a variety of materials, techniques and philosophies and trained in various techniques of rehearsing and conducting jazz ensembles, including the study of scores and recordings of different styles and rehearsal of the Conservatory's jazz ensembles. Includes an emphasis on structuring jazz and studio music curriculum at the College level. Prerequisite: Cons 381 Basic Conducting.

**476 Accompanying III (1).** A course for piano majors designed to give experience in accompanying vocal and instrumental soloist and choral groups. One-hour class sessions and two hours of assigned accompanying per week.

**477 Accompanying Iv (1).** Continuation of Cons. 476.

**483 Advanced Instrumental Conducting (2).** A review of techniques and musical styles of literature for all levels and all media through conducting in class.

**490 Independent Study (1-3).** Intensive reading, research projects, creative work, or special performance in the student's major field, selected by the student in consultation with the appropriate faculty. Prerequisite: Consent of the instructor.

**491B Pedagogical Practices I Voice (2).**

**491C Pedagogical Practices I Organ (2).**

**491K Pedagogical Practices I Theory (3).**

**491M Pedagogical Practices I General (3).** The course will address a variety of aspects of the human relationships in music teaching/learning settings. Topics will include teacher/student relationships, large group dynamics (ensemble), one-on-one interaction (studio), time management, performance anxiety, productive practice, and the observation and assessment of musical behavior. A field observation component is included.

**492B Pedagogical Practices II Voice (2).** A laboratory experience that includes teaching applied voice in preparation for an end of semester concert experience. The course content includes introduction to skill sets required for teaching applied voice and applied voice studio budget and organization. Prerequisite: 491B Pedagogical Practices I Voice

**492C Pedagogical Practices II Organ (1).**

**494 Performance Styles (2).** A practical approach to the music of the Medieval, Renaissance, Baroque, Early Classical and Contemporary eras through performance. May be repeated for credit. Prerequisites: Completion of Cons. 122, audition and consent of the instructor.

**495 Advanced Piano Pedagogy I (2).** Study of basic pedagogical philosophies, objectives, and procedures of various music educators/programs. Psychological factors in the learning/teaching process. Survey of late elementary and early intermediate repertoire and materials. Prerequisite: Cons. 326 or consent of the instructor.

**495A Advanced Piano Pedagogy - Supervised Teaching III (1).** Supervised individual and group teaching. Must be taken concurrently with Cons. 495. Prerequisite: Cons. 326 or consent of the instructor.

**496 Advanced Piano Pedagogy II (2).** Continuing study of intermediate repertoire with emphasis on performance. Seminars with master teachers. Supervised individual and group teaching. Prerequisite: Cons. 495 or consent of the instructor.

**496A Advanced Piano Pedagogy - Supervised Teaching Iv (1).** Supervised individual and group teaching. Must be taken concurrently with Cons. 496. Prerequisite: Cons. 495 or consent of the instructor.

**497 Seminar-Workshop In Music (1-4).** Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists. As announced.

**497AM American Music Company Choral Reading Sessions (1-4).**

**497AT Seminar-Workshop In Music (1-4).**

**497CE Seminar-Workshop In Music (1-4).**

**497GA Seminar-Workshop In Music (1-4).** Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists. As announced.

**497IN Seminar-Workshop In Music (1-4).** Special courses in techniques, theory, and repertoire taught by the Conservatory staff and visiting specialists. As announced.

**497JB Seminar-Workshop In Music: Music History Review (Late) (1-4).**

**497OU Seminar-Workshop In Music (1-4).**

**497PC Seminar-Workshop In Music (1-4).**

**497PI SEMINAR WKSHP IN MUSIC (1-4).**

**497PL Seminar Workshop In Music (1-4).**

**497PO Seminar Workshop In Music (1-4).**

**497PP Seminar Workshop In Music (1-4).**

**497SA Seminar-Workshop In Music (1-4).**

**497SI Seminar-Workshop In Music (1-4).**

**497SV Seminar-Workshop In Music (1-4).**

**497TE Orff Schulwerk Level I & II (1-4).**

**497WE Seminar-Workshop In Music (1-4).**

**498 Research Problems (2).** Individual study under the direction of a faculty adviser, leading to the writing of a formal paper. A public, non-graded presentation of the paper with performance examples is required. Prerequisites: None.

## Counseling Psychology and Counselor Education Courses

**420 Counseling Techniques For Educators & Other Human Services Personnel (3).** Principles of effective communication and their evaluation. Techniques of listening, verbal and non-verbal communication and empathy will be emphasized, as well as crisis intervention.

## Criminal Justice and Criminology Courses

**101 Introduction To Criminal Justice (3).** This introductory overview course is designed to familiarize students with the three main components of the adult criminal justice system: police, courts, and corrections. The course will investigate the viewpoints of offenders, victims, social scientists, the general public, and workers in the system on diverse issues of social control, criminal behavior, treatment and punishment.

**101P Introduction To Criminal Justice (3).** This introductory overview course is designed to familiarize students with the three main components of

the adult criminal justice system: police, courts, and corrections. The course will investigate the viewpoints of offenders, victims, and social scientists, the general public, and workers in the system on diverse issues of social control, criminal behavior, treatment and punishment.

**250 Introduction To Policing (3).** A comparison of law enforcement and peace-keeping functions of the police provides a basic theme for the course, with examination of several topics related to police accomplishing these functions. Some of the topics covered include police discretion, police professionalism, the police officer as a bureaucratic agent, and police-community relations.

**265 Delinquency And Juvenile Justice (3).** This course focuses on the nature, extent and theoretical explanations of delinquency and the history and philosophy behind the juvenile justice system in terms of the roles played by law enforcement, juvenile courts, and corrections. Juvenile groups such as status offenders, delinquents, gang members, victims, and juveniles adjudicated as adult criminals will also be examined.

**270 Principles Of Corrections (3).** This course explores adult institutional and community-based corrections in the United States. Major areas examined include the evolution of corrections, the process of correctional reform, adult offenders and prison culture, treatment and rehabilitation of offenders, intermediate sanctions, and correctional workers.

**300 Structural Theories Of Crime (3).** The impact of sociodemographic, geographic, economic, political variables and sex roles in the occurrence and distribution of crime.

**315 Crime, Criminals And Victims (3).** This course addresses the study of crime, criminal and victims. It examines the relationship between victims and offenders. Special treatment is given to criminological as well as victimological theories. A segment of the course will address the sporadic nature of juvenile crime. The course will examine viable strategies to reduce levels of victimization. In the final analysis the course will offer crime prevention strategies.

**317 Policies Of Drug Use And Control (3).** Utilizing both historical and contemporary information, this course provides an assessment of the "drug problem" in the U.S. and policies of control developed in response to the problem. Drug use criminalization, legalization, medical treatment, and prevention strategies and related issues are considered in regard to scientific knowledge related to the patterns, causes, and impact of substance abuse. Also offered as Sociology 317. Offered annually.

**319 Theoretical Criminology (3).** A comprehensive examination of the major criminology theories, their philosophical assumptions, and the socio-historical context in which they were articulated. Also offered as Soc 319.

**320 The Supreme Court And The Criminal Process (3).** Course examines recent Supreme Court decisions on the constitutional aspects of the administration of justice. Topics include the nationalization of the Bill of Rights and jurisdiction with an emphasis on problems involving the Fourth, Fifth, Sixth, Eighth, and 14th Amendments.

**351 Policing In The Community (3).** The purpose of this class is to introduce the student to police operations and the effectiveness of different police programs. The material discussed in class focuses on empirical evaluations of police effectiveness, and the role of the police in today's society. This class is divided into four broad areas: the nature and effectiveness of patrol; criminal investigations; special operations including crackdowns, responses to domestic assaults, and hot spot policing; and the latest crime prevention strategies, such as community oriented policing and problem solving.

**355 Crime And Public Policy (3).** This course addresses how society has responded to the crime problem during changing social, historical, political and economic contexts. Special attention will be given to how society has reacted to crime (with liberal treatment and rehabilitation or conservative punitive approaches) from the 1920's to the present.

**355P Crime And Public Policy (3).** This course addresses how society has responded to the crime problem during changing social, historical, political and economic contexts. Special attention will be given to how society has reacted to crime (with liberal treatment and rehabilitation or conservative punitive approaches) from the 1920's to the present.

**363 Introduction To Statistics In Sociology/Criminal Justice (3).** A first course in the statistical analysis of quantitative data. Course emphasizes descriptive statistics, probability theory, parameter estimation, bivariate hypothesis testing, and computer applications. Prerequisites: Math 110, 116 or an equivalent. Offered: Fall

**371 Community Corrections (3).** This course will examine intermediate sanctions in the United States, such as probation, halfway houses, boot camps, among others. Specifically, the origin and proliferation of the use of corrections in the community will be explored in depth. The effectiveness of several major community correctional strategies will be explored through a review of the research literature base. Several issues will be highlighted including (but not limited to ) ethical constraints, political problems, and

treatment effectiveness in light of the use of community sanctions. Offered: One time every other year

**373 Institutional Corrections (3).** This course will examine several aspects of the American Prison. Specifically, current issues in the management and growth of the prison industry will be reviewed. These issues will include major constitutional applications, the management of special populations within the prison environment, and a general review of several aspects of day-to-day prison life. These issues and others will be explored through a review of the research literature base germane to prisons and institutions.

**390 New Dimensions In Criminal Justice (3).** Examination of contemporary topics, issues or problems related to the development of justice and/or operations in response to criminal and related behaviors addressed by the justice system. May be repeated for credit. Prerequisites: None. Offered: Every semester.

**420 Control Of Crime And Delinquency (3).** The various ways societies have tried to control and prevent violations. Topics: the nature and types of law; a critical analysis of American police, judicial and penal systems; the prevention of crime and delinquency. Also offered as Sociology 420.

**421 Criminal Behavior In The United States (3).** A description and causal analysis of complex forms of criminal behavior in contemporary American society; included for study will be organized and professional crime, white collar crime, homicide, street crime, and crimes against morals involving sex, alcohol, drugs and gambling. Also offered as Sociology 421.

**424 The Death Penalty In America (3).** This course takes a sociological look at the most extreme punishment currently in use in the United States. Society debates its value without giving much weight to the research which social science conducts. Indeed, the political domain frequently misrepresents the data that is available. The course evaluates the adequacy of the research and separates the strands of the debates in order to understand the role of the death penalty in our society. Also offered as Sociology 424.

**429 Restorative Justice (3).** This course is an introduction to the concept of restorative justice. The course examines the roots of the concept, its theoretical perspective, and its applications in juvenile justice, mediation and correctional settings.

**435WI Gender And Law (3).** This course examines the contemporary legal rights and obligations of women in light of the historical relationships between the social status of women and their legal status. Topics investigated include proprietary and contractual rights, family law, employment practices, educational opportunities, and women as victims and perpetrators of crime. Prerequisite: Successful Completion of the Wept Test

**450 Women, Crime And Criminal Justice (3).** This course will focus on the experiences of women and girls with crime in America. The primary areas studied will be females as victims, offenders, and professionals in the criminal justice system. Various criminological theories and research will also be examined in light of gender.

**470WI Capstone: Criminal Justice And Criminology (3).** This course is designed to integrate student's program of study in the major of criminal justice and criminology. The class examines current conditions of the justice system with respect of race, gender and social class. This course satisfies the writing intensive requirement for the General Degree Requirements of the College. Prerequisites: WEPT, course taken in student's last semester. Semester offered: Fall/Winter

**475 White Collar Crime (3).** This course examines activities variously called white-collar crimes, crimes of privilege, corporate and government crimes, and underworld crimes. The purposes of the course are (1) to describe, analyze, and assess social impact of these offenses, (2) to examine the capacity of existing theories in criminology and social deviance to account for those activities, (3) to describe the responsibilities, powers, and activities of those agencies which have jurisdiction over them, and (4) to assess the effectiveness of various legal sanctions in controlling such activities and to review the problems involved in legislation intended to achieve that control.

**476 Seminar In Criminal Justice And Criminology Issues (3).** This course is an advanced exploration of the relationship between the criminal justice system and criminal behavior from at least one of the following perspectives: psychological, sociological, economic, legal, political or administration/management. Will include discussions and analysis of contemporary readings and on-going research in the selected perspective.

**483 Methods Of Sociological Research (3).** A seminar which explores the interrelationships between sociology theory, research methods and statistics. May focus on major contemporary issues building on and integrating knowledge obtained in previous courses. Also offered as Sociology 362.

**486 Methods Of Program Evaluation (3).** This course focuses on applying research methodological techniques to evaluation of programs designed to respond to social problems and issues (e.g., drug use, crime, delinquency, indigent care). Topics of interest to those charged with designing and executing program evaluations are considered, including types of program

evaluation assessment, use of time series models, special research issues for program evaluation, and generating and testing hypotheses from program objectives. Also offered as Sociology 486. Offered annually.

**490 Directed Studies In Criminal Justice And Criminology (1-3).** Individual research and study in the student's field of interest as approved and directed by major professors. The work involves examination and reporting of selected problems affecting the various agencies of our legal system. Only two of the 490 sequence courses can be applied to the major. A. Law Enforcement B. Court Operations and Administration C. Corrections D. Legal Theory and Philosophy E. Criminological Theory F. Sociology of Law.

**491 Internship In Criminal Justice (3-6).** Intern experience under faculty supervision in local, state, federal or private agencies working with justice system involved offenders. Prerequisites: CJC 101, junior standing prior consent and arrangement. Offered: Every semester.

**492 Topics In Criminal Justice (1).** Specialized, short courses with focused examination of particular topics germane to the study of the justice system. May be repeated for credit. Prerequisites: None. Offered: Every semester.

## Curriculum and Instruction Courses

**497 Individual Study (1-6).** Guided study of a selected topic in curriculum and instruction. Prerequisite: Permission of instructor.

## Dance Courses

**106 Computer Technology for Dance (3).** This course will not only give basic computer knowledge but will give students the tools to visualize and chronicle dance steps or entire routines in an easy-to-use 3D environment. The students will use these tools to create choreography and to inform interdisciplinary arts and dance technology projects that will be implemented into the Advanced Composition course. Prerequisite: Dance 218A Composition I.

**107 Dance Production I (2).** A study of the fundamentals of dance production including planning and organization, programming and publicity, lighting design for dance, sound and recording techniques, costume design and construction, and stage make-up. Laboratory projects will be coordinated with actual dance productions.

**108 Dance Production II (2).** Continuation of Cons. 107.

**140A Analysis Of Movement For The Dance I (1).** A study of the structure of classical ballet steps and movements including basic anatomy, vocabulary and aesthetics of ballet. Restricted to dance majors.

**140B Analysis Of Movement For The Dance II (1).** Continuation of Cons. 140A.

**141B Ballet Technique And Theory I (3).** Fundamentals of classical ballet including beginning pointe work. Non-Majors by audition.

**141M Modern Dance Technique And Theory I (3).** Techniques of Contemporary dance. Non-Majors by audition.

**142B Ballet Technique And Theory II (3).** Continuation of Cons. 141B.

**142M Modern Dance Technique And Theory II (3).** Techniques of Contemporary dance. Non-Majors by audition.

**213C Men's Class I (1).** This course is designed to meet the needs of the male dancer and will focus on developing the technique, strength, and agility needed for a professional career.

**213D Men's Class II (1).** Continuation of Dance 213A.

**217A Improvisation I (1).** An introduction to the use of improvisation as a method of discovering through problem-solving a kinesthetic body language through immediate and logical motile responses to given problems involving a body or bodies as they relate to time, space, energy, and force. For Dance majors.

**217B Improvisation II (1).** The continued study of the use of improvisation as a learned skill which can be used as a vehicle for finding precompositional movement material used in making dances. For Dance majors.

**218A Composition I (2).** An introduction to the fundamentals of choreography, including the development of dance compositions through the exploration and definition of specific studies, including floor design, shape design, motion design, and time design. For Dance majors.

**218B Composition II (2).** The continued exploration of the fundamentals of choreography including locomotion studies, categories of motion, axial movement and sequential and non-sequeter movement. Prerequisite: Cons. 218A.

**241B Ballet Technique And Theory III (3).** Continuation of Cons. 141B, 142B on the intermediate level including Beginning Pas de Deux.

**241M Modern Dance Technique And Theory III (3).** Continuation of 141M, on the intermediate level.

**242B Ballet Technique And Theory IV (3).** Continuation of Cons. 141B, 142B on the intermediate level including Beginning Pas de Deux.

**242M Modern Technique And Theory Iv (3).** Continuation of 142M, on the intermediate level.

**250 Labanotation I (2).** An introduction to basic theory and elementary skills of labanotation.

**260 Jazz I (1).** A study of Western Theatrical Dance focusing on Jazz and Musical Theater dance forms.

**261 Jazz II (1).** The continued study of Western Theatrical Dance focusing on Jazz and Musical Theater dance forms.

**301 Advanced Movement Analysis For Dancers (3).** A study of the body which relates specifically to the needs of dancers. Emphasis is placed upon an understanding of the skeletal system, the muscular system, their specific importance to dance technique, and dance injuries and prevention. Three hours lecture per week. Prerequisites: Dance major.

**302 Fundamentals Of Body Alignment (1).** An introduction to the fundamentals of body alignment, including therapeutic exercises which focus on muscular imbalances and injury prevention. Emphasis is placed upon developing total body strength and flexibility. Required for dance majors or by permission of instructor. Prerequisite(s) Dance 301 Advanced Movement Analysis for Dancers.

**303 Pilates (1).** A non-impact body conditioning method based on principles of abdominal and scapular stabilization. Introduction to the essential and intermediate mat work, which consists of non-weight bearing exercises. Designed to give the student an understanding of the principles and muscular emphasis behind the pilates method. Proper alignment, full range of motion, and patterned breathing will be emphasized. Prerequisite: Dance 301 and 302

**305 History Of Dance I (3).** A study of the development of Western Theatrical Dance from the Renaissance Court Dances to 20th Century contemporary ballet. Outside reading and written reports required. Offered: Fall.

**306 History Of Dance II (3).** A study of the development of Modern Dance from the late 19th Century through the 20th Century. Outside reading and written reports required. Offered: Winter.

**309B Company (1).** A repertory company comprised of dance majors, selected guest artists and dance faculty for the preparation and public performance of choreographic works, concerts and lecture/ demonstrations directed by resident faculty and guest choreographers.

**310A Pirouette Class I (1).** This course is designed to teach and develop the technical skills needed for turns. It will be offered for 200-400 level dance students and will focus on intermediate and advanced turns and turn combinations. This specialized class will allow the student to focus and work on turning techniques and identify problem areas such as spotting, balance, force and control. Prerequisites: Dance 241B (ballet) or 241M (modern) or higher

**310B Pirouette Class II (1).** Continuation of Dance 310A. Prerequisites: Dance 241B (ballet) or 241M (modern) or higher.

**313A Partnering/Pas De Deux I (1).** This course is designed to meet the needs of the 300 level ballet student and will teach the elementary skills of partnering such as turns, lifts, promenades, and balances. Prerequisites: Dance 341B Ballet Technique and Theory V or higher.

**313B Partnering/Pas De Deux II (1).** Continuation of Dance 313A. Prerequisites: 341B Ballet Technique and Theory V or higher.

**316A Performance Techniques I (1).** A four-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of pantomime gestures, and theatrical dance forms including tap and jazz styles.

**316B Performance Techniques II (1).** A four-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of pantomime gestures, and theatrical dance forms including tap and jazz styles.

**319A Composition III (2).** An intermediate course in Dance Composition focusing on choreographing works through the exploration of movement such as theme and variation, gesture, chance dance, poetry and narration, costume and musical forms as structural frameworks for making dances. Prerequisite: Cons 218B.

**319B Composition Iv (2).** A continuation of the intermediate course in Dance Composition focusing on choreographing solo and group works in the Ballet and Modern idioms, as well as preparation of works for the senior recital. Prerequisite: Cons 319A.

**341B Ballet Technique And Theory V (3).** Continuation of Cons. 242B on the advanced level. (Modern emphasis students - minimum of 3 classes weekly required (MWF) (2 hrs.).

**341M Modern Dance Technique And Theory V (3).** Continuation of 242M on the advanced level. (Ballet emphasis students - minimum of 3 classes weekly required (MWF) 2 hrs.)

**342B Ballet Technique And Theory Vi (3).** Continuation of Cons. 341B.

**342M Modern Dance Technique And Theory Vi (3).** Continuation of Cons. 341M.

**403A Modern Technique For Non-Majors (1).**

**404A Ballet Technique Non-Majors I (1).** The applied and theoretical study of ballet including ballet pedagogy, analysis of movement and traditional ballet vocabulary. Outside reading and written reports required.

**404B Ballet Technique For Non-Majors II (1).** The applied and theoretical study of ballet, including ballet pedagogy, analysis of movement, and traditional ballet vocabulary. Outside reading and written reports required.

**405A Modern Dance Repertory I (1).** Modern Dance Repertory is an advanced course for modern dance majors to study and perform the repertoire and works of renowned contemporary choreographers. It is a parallel to the Ballet Variations course which teaches the repertoire of ballet master works. Prerequisites: Dance 341M Modern Dance Technique and Theory V or higher

**405B Modern Dance Repertory II (1).** Continuation of Dance 405A. Prerequisites: Dance 341M Modern Dance Technique and Theory V or higher.

**413A Advanced Pas De Deux I (1).** This course is designed to meet the needs of the 400 level ballet student and will teach advanced pas de deux skills. The students will have opportunity to learn pas de deux from great ballets which will give students a hands-on experience, perfecting their partnering skills. Prerequisites: 441B Ballet Technique and Theory VII or higher.

**413B Advanced Pas De Deux II (1).** Continuation of Dance 413A. Prerequisites: 441B Ballet Technique and Theory VII or higher.

**414A Men's Variations I (1).** Men's Variations is designed for 400 level male ballet dancers. Students will have the opportunity to learn and perform renowned variations from the Romantic, Classical, and Neo-Classical periods of ballet. This class will give the male student a true professional coaching experience in their training as they prepare for stage. Prerequisite: Dance 342B Ballet Techniques and Theory VI

**415A Variations I (1).** Variations is designed for the 400 level ballet student. The course will teach female variations to the advanced students and the students will have the opportunity to learn and perform renowned variations from Romantic, Classical and Neo-Classical periods of ballet. The students will also work each class in traditional tutus in order to give them a true professional experience in their training as they prepare for the stage. Prerequisites: Dance 342B Ballet Technique and Theory VI

**415B Variations II (1).** Continuation of Dance 415A. Prerequisites: Dance 342B Ballet Technique and Theory IV

**416A Performance Techniques III (1).** A four-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of pantomime gestures, and theatrical dance forms including tap and jazz styles.

**416B Performance Techniques Iv (1).** A four-semester class rotation focusing on performance techniques of folk and character dances of various countries, traditional vocabulary of pantomime gestures, and theatrical dance forms including tap and jazz styles.

**441B Ballet Technique And Theory Vii (3).** Continuation of 342B on the advanced level. (Modern emphasis students - minimum of 3 classes per week required (MWF) 2 hrs.)

**441M Modern Dance Technique And Theory Vii (3).** Continuation of 243M on the advanced level. (Ballet emphasis students - minimum of 3 classes per week required. (MWF) 2 hrs.)

**442B Ballet Technique And Theory Viii (3).** Continuation of Cons. 441B.

**442M Modern Dance Technique And Theory Viii (3).** Continuation of 243M on the advanced level. (Ballet emphasis students - minimum of 3 classes per week required. (MWF) 2 hrs.)

**493 Senior Recital I (1).** The planning, organization and preparation for the requirements for Senior Recital including selection of repertoire, aspects of technical production and creation of original choreographic works in solo and group form.

**494 Senior Recital II (1).** The culminating preparation and juried public performance in three dance forms including the completion, rehearsal and mounting of original choreographic works in solo and group form.

**497CD Modern Dance Technique and Theory (3).**

## Decision Science and Operations Management Courses

**309 Intermediate Business Statistics (3).** This course emphasizes statistical applications in business, and students will complete research projects using one or more multivariate statistical techniques. Topics covered will include statistical software (such as SAS or SPSS), multiple regression, Chi-Square,

analysis of variance, non-parametric methods, multidiscriminant analysis, factor analysis, and a brief introduction to structural equation models. Prerequisite: STAT 235 or BDS 308

**326 Production/Operations Management (3).** This course presents an introduction to the concepts, models, and methods of operations management. Students will study approaches to planning, scheduling, and controlling product and service facilities, processes, cost, quality, quantity, production, capacity, inventory, and distribution requirements. Computer applications and computer-based operations control systems will be introduced as a means to effectively manage the operations functions of both product and service organizations. Prerequisites: ECON 202, STAT 235 or BDS 308

**346 Management Analysis (3).** This course examines the application of various scientific and mathematical methods to decision making in various business disciplines, and makes use of spreadsheets and other software to construct and analyze practical models of real-world systems. Applications will be based on topics such as project management, decision analysis, scheduling, queuing systems, simulation, optimization/allocation models, forecasting, and profitability analysis. Prerequisites: STAT 235 or BDS 308, and MIS 203 or BIS 202

**431 Quality and Process Improvement (3).** A study of planning and managing effective quality and processes in organizations. Students are expected to master important quality management and process improvement tools including Six Sigma, TQM, Theory of Constraints, and other contemporary tools via appropriate software, case studies, and projects. Prerequisite: DSOM 309

**496 Internship: Decision Science and Operations Management (1-3).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Prerequisite: Admission only by prior approval and consent of instructor

**497 Special Topics: Decision Science and Operations Management (1-3).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Prerequisite: Admission only by prior approval and consent of instructor

## Dental Hygiene Courses

**3000 Dental Morphology And Occlusion (2).** Study of the structural formation of permanent and deciduous teeth. Includes detailed information on each tooth as to crown and root anatomy and as to form and function. Occlusion and malocclusion are studied. Laboratory exercises are included.

**3020 Dental Radiology (2).** Lecture and clinical practice of dental radiographic procedures. Topics included are radiation hygiene, taking and developing radiographs, processing and mounting films, and radiographic interpretation. Clinical experience is required throughout the remaining semesters.

**3080 Introduction To The Preventive Practice Of Dental Hygiene (4).** This course will introduce theories and rationales for basic clinical dental hygiene care (infection control, oral examination and fundamentals of instrumentation). In diverse populations. Practical application of specific clinical skills will be introduced in the classroom and applied in the clinical setting, DH3080L.

**3080L Preclinical Dental Hygiene (2).** Practical application of the fundamental concepts and principles of patient care in a diverse society discussed in DH3080. Emphasis is placed on patient assessment and techniques of instrumentation for examination and dental hygiene treatment. After the student has mastered basic skills, he/she will begin to provide direct dental hygiene services.

**3200 Histopathology (3).** An introduction to the principles of general pathology and organ system pathology including inflammation, immunity and diseases of immune origin, genetic diseases, neoplasia with emphasis on oral cancer, and diseases of selected organ systems including pulmonary, cardiovascular, hematopoietic, endocrine, skeletal, gastrointestinal, hepatic, pancreatic and other systems as time permits.

**3210 Applied Biochemistry (2).** This course is designed to build upon previous knowledge of chemistry, biology, and physiology as a basis for understanding principles in biochemistry. Presented through a self-paced online format, course content is selected to provide the foundation knowledge in biochemistry needed for subsequent courses in nutrition, pathology, and other health related topics.

**3220 Dental Biomaterials (2).** This course is designed to provide the dental hygiene student with a sound knowledge base in the science and manipulation of dental biomaterials. Through lectures and laboratory session, the student's ability to make clinical judgments regarding the application of dental biomaterials and the ways in which materials react to the oral environment will be enhanced.

**3260 Principles Of Periodontics (3).** This course in Periodontics will cover the biological and clinical aspects of periodontal health and pathology. An

introduction to the supporting structures of the teeth will provide the foundation of understanding pathogenesis, histopathology and subsequent therapeutic treatment of periodontal diseases. The dental hygienist's role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is examined.

**3280C Dental Hygiene Clinic I (3).** Students will further develop clinical skills and techniques learned in DH 3080L and previous courses by providing services to patients.

**3285 Seminar In Dental Hygiene I (2-3).** This course expands on theory and background presented in DH 3080. Topics include expanding dental hygiene skills required for the care of patients and continued development of problem solving abilities and critical thinking skills as they relate to the provision of dental hygiene care. Provide students with a more insightful view of the role of the dental hygienist in the delivery of comprehensive patient care. Offered: Winter

**3300 Radiographic Interpretation (0.5).** The purpose of the course is to introduce interpretation of radiographic anomalies and pathology just prior to your clinical experience. Since there was little time for an emphasis on radiographic interpretation during your second year radiology course, this lecture and participation course supplement clinic instruction in diagnosis of the patient's oral needs and formulation of a treatment plan. Upon completion of this course, you should be able to recognize simple pathology and radiographic anomalies. Offered: Winter

**3320 Oral Health Education (2).** The purpose of this course is to prepare the beginning dental hygiene student to effectively fulfill the role of a dental health educator and initiator of preventive oral health programs for individuals of diverse backgrounds and needs. The steps involved in the development of an individual oral health program will be presented, as well as information on varying oral health products. The student will then have the opportunity to apply course concepts in the clinical setting.

**3340 Principles Of Public Health (2).** In this course the student will participate in service learning activities which require application of dental public health principles. Students will have the opportunity to assess a target population, plan, implement and evaluate appropriate programs. Students will also apply theories and skills of communication and education while preparing and presenting oral health education programs for various population groups.

**4020 Local Anesthesia And Pain Control (3).** This course is designed to prepare dental hygiene students for the safe, effective administration of local anesthesia and nitrous oxide sedation. Included are content areas in anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Laboratory session are structured to develop actual experiences in administration of local anesthetics and nitrous oxide. Various mechanism for pain control are also covered. Methods of presentation include lecture, large group discussion, laboratory and clinical participation.

**4040 Introduction To Research And Instruction (1-2).** Introduction to research and instruction. The student will be introduced to the idea of scientific inquiry and the research process, in particular as it relates to securing content for teaching. Students will evaluate the usefulness of various databases as well as conduct productive database literature searches. Instructional topics will focus on current technologies such as: production of electronic presentations and handout materials, exporting images for inclusion in print and electronic educational presentation, and development of presentation skills to effectively conduct an educational session.

**4050 Periodontics II (2).** This course in Periodontics will provide and introduction to Phase II and III therapy. Periodontal decision making will be emphasized. The dental hygienists' role in recognition, prevention and treatment of periodontal diseases and maintenance of periodontal health is further examined. Prerequisite: DH 3620 Principles of Periodontics. Offered: Winter

**4060C Dental Hygiene Clinic II (2).** The student will continue to develop competency in basic dental hygiene skills. Principles of periodontal techniques, such as non surgical periodontal therapy, supportive treatment procedures and comprehensive patient care will be emphasized. The student will be asked to demonstrate professional management skills and productivity.

**4065 Seminar In Dental Hygiene II (1).** This course is offered in conjunction with Dental Hygiene Clinic II and is part of the clinical education continuum. Emphasis will be placed on developing advanced skills, instrument sharpening, intra-oral imaging, adjunctive dental hygiene treatment, and continued problem-solving in the clinical setting.

**4080 Introduction To Research Design (2).** Basic principles and concepts of research and the use of statistical methods in scientific inquiry are discussed. Skills in writing research protocol, surveying methods, and data collection will be required. It is recommended that this course be taken in the same semester as DH4620. Offered: Fall Semester on-site, (Summer Semester, on-line only).

**4100 Pharmacology (3).** Discussion of pharmacotherapeutic drugs, their classification, applications, administration, adverse effects, and interactions.

**4120 Seminar In Dental Hygiene (2).** This course is offered in conjunction with DH 4120C Preventive Dentistry Clinic III, and is a part of the clinical education continuum. Major content emphasis includes developing problem solving abilities, managing patients with special needs and diverse backgrounds (oncology, gerontology and physical disabilities), and managing emergencies in the dental office. Skills in preventive treatment program planning and evaluation of patient care will be reinforced through community experiences and self reflection.

**4120C Dental Hygiene Clinic III (4).** The student will continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning, pain control and supportive techniques will be stressed. Comprehensive treatment planning and implementation of comprehensive care to a diverse patient population will be the focus of this course. Continued development of professionalism, management and critical thinking skills will be emphasized.

**4210 Practice Management (3).** Current relevant issues impacting dental hygiene practice are discussed. Dental practice economics, communicating and management in a diverse society are included. Also included in this course is the study of jurisprudence as it relates to the practice of dental hygiene.

**4220 Community Oral Health Field Experiences (2).** The student will apply the principles of public health presented in DH3340 to community field experiences. The service learning format will allow students the opportunity to assess a target population, as well as plan, implement and evaluate appropriate programs. Students will also apply the theories and skills of communication and education while preparing and presenting oral health education programs for various population groups. Semester Offered: Fall & Winter

**4230 Principles Of Public Health (2).** This course introduces the student to principles of public health, the field of epidemiology, health care delivery systems, public health terminology and teaching methodologies to use in culturally diverse community settings. Students will be able to discuss patient aspects of current public health issues and relate them to their roles as health care professionals. Additionally students will prepare plans for implementation and evaluation of public health programs. The material presented in this course will be extended to the subsequent course: DH 4220 (Community Oral Health Field Experiences.)

**4240 Ethics In Professional Practice (1).** Study of ethics and ethical issue related to the practice of dental hygiene within a diverse society. Includes application of ethical principles to real-life situations.

**4260 Senior Seminar (2).** Problems and strategies in preparing for the clinical practice of dental hygiene are discussed in this course. All courses in the dental hygiene curriculum are used to synthesize information and applying content to patient cases and practice management issues. Case-based learning (CBL) will be utilized to review significant content areas as well as to introduce subjects not previously encountered during previous clinical experiences.

**4260C Dental Hygiene Clinic Iv (4).** The student will have the opportunity to reach competency in all clinical skills. Emphasis will be placed on decision-making, problem-solving, critical thinking, appointment and time management. The course will focus on comprehensive dental hygiene care to a diverse population.

**4320 Special Patient Care Practicum (2-4).** Through outside agency affiliation, students will have the opportunity of applying the course content from Principles of Public Health, Dental Health Education and DHE-Practicum. Sites for participation include hospitals, nursing homes, and residential and day activity centers for developmentally disabled. Offered: TBA

**4330 Introduction To Oncology And Practicum (2-4).** Field experience designed to provide the student with personal observation of oncology patients undergoing therapy; chemotherapy for various cancers and surgical treatment and/or radiation therapy for head and neck cancers. A limited opportunity will be provided to assist in treatment planning for oral/dental needs, oral hygiene education, and observation of a head and neck cancer surgery. Laboratory experience will include construction of custom fluoride carriers, demonstration of oral hygiene products and an overview of hospital administration, procedures and in-patient charts, basic oncologic principles and the psychological ramifications of cancer, therapy and rehabilitation. Offered: TBA

**4340 Community Dentistry Practicum (2-4).** The community dentistry practicum provides the student with an opportunity for personal exploration into the many settings of community dentistry. These experiences may lead the student into clinical activities as well as dental health educational programs. The student will have the opportunity to work with various community health professionals in the Kansas City area. The student will need reliable transportation and should expect some experiences to require travel. Possibilities for practicum experiences are broad and will be defined after an initial assessment of the student's interest and goals. An individual learning

contract will be written following the assessment. The student will be required to meet as a group periodically though out the semester.

**4350 Periodontal Therapy Practicum (1-4).** This course is designed for the dental hygiene student who desires increased experience with periodontal skills. The course involves practical experience in the graduate periodontics clinic working with a periodontology resident. Two clinic sessions per week; one seminar scheduled weekly. Offered: Winter Semester online, onsite TBA

**4360 Practice Management Practicum (3).** Current relevant issues impacting dental hygiene practice are discussed. Dental practices, economics, communication and management are included. Practical application of course would include the development of a dental office operating manual. Offered: TBA

**4380 Research Practicum (2-4).** This course provides an opportunity to apply the content in the previous course Introduction to Research Design. The protocol identified may be a basic science, clinical or community dental hygiene problem. The field experience may deal with a basic or applied, descriptive or explanatory research question. Offered: TBA

**4500 Seminar On Issues In Higher Education For Health Professionals (2-4).** This course is designed to introduce the student to issues encountered in higher education. Topics included are curriculum vitae and resume writing, interviewing skills, accreditation, promotion and tenure, portfolios and outcomes assessment, dental hygiene theory development, and various other topic areas. Offered: Winter Semester

**4600 Advanced Clinic Concepts And Practicum (2-4).** This course is designed for the graduate and degree completion dental hygiene student. It will expand on the students basic knowledge of the dental hygiene process of care. Current scientific literature related to the topic in dental hygiene and oral health will be examined to enhance background knowledge related to the dental hygiene process and foster an attitude of critical analysis and life long learning.

**4620 Principles In Dental Hygiene Education (3).** Through individualized instruction, the student will have an introduction to educational concepts in preparation for student teaching. Topics included are goals and objectives, curriculum and course design, development of course syllabi, teaching/learning strategies, use of technology in teaching, basic principles of testing, micro-teaching demonstration, and student and self evaluation. It is recommended that this course be taken in the same semester as DH 4680. Offered: Fall semester on-line only.

**4625 Dental Hygiene Administration (2).** This course is designed for the post-certificate dental hygiene student. Major topic areas include accreditation of dental hygiene programs, the impact of National and State Board examinations on curriculum planning, selective admissions policies and procedures, faculty evaluation, promotion and tenure and students' rights. Offered: TBA

**4630 Practicum In Dental Hygiene Administration (2-4).** Under the supervision of the Director of Dental Hygiene, the student will gain actual experiences in the daily administration of a dental hygiene program. The student may contract for responsibilities such as admissions, budget preparations, course scheduling, report writing and student academic counseling. Offered: TBA

**4635 Practicum In Clinical Supervision (2-4).** Under the supervision and permission of the Dental Hygiene Clinical Supervisor, the student will gain actual experience in the duties involved in coordinating the clinical education of a dental hygiene student. The student may contract for responsibilities such as, coordinating mock board examinations, maintaining student clinical records, developing faculty and student clinic schedules and report writing. Offered: TBA

**4640 Student Teaching And Conference I (2-4).** Under the direction of a supervising professor, the student may select teaching experience in the classroom areas of their choice. The student develops behavioral course objectives, comprehensive lesson plans, test and examination items, classroom presentations, and prepares student evaluations in the selected classroom teaching areas. The student may select teaching assignments in one of the developed externship student teaching programs. Conferences will be held in conjunction with the course. Students must complete DH 4620 prior to enrolling in this course.

**4650 Student Teaching And Conference II (2-4).** The student will continue to develop teaching skills in laboratory and/or classroom areas as selected by the student under the direction of a supervising professor. Students must complete DH 4640 prior to enrolling in this course. Offered: TBA, on-line and on-site

**4660 Independent Study In Dental Hygiene (1-4).** This course is designed for the dental hygiene student who desires independent study of a particular problem or area of interest in dental hygiene education. The student must have prior approval of the Director of Dental Hygiene before enrolling in this course. Offered: Fall, winter, summer.



**4680 Dental Hygiene Clinical Instruction I (2-4).** Students must complete DH 4640 prior to enrolling in this course. Continued development of competency as a clinical instructor under the supervision of the dental hygiene faculty. Requires a half-day in clinic student instructor. Offered: Fall on-line, on-site TBA

**4685 Dental Hygiene Clinical Instruction II (1-4).** A continuation of DH 4680 Dental Hygiene Clinical Instruction I. Under the supervision of the dental hygiene faculty, students may continue to develop skills as a dental hygiene clinical instructor. Students must complete DH4680 prior to enrolling in this course. Offered: TBA

**4750 Geriatric Oral Health Promotion And Education (1-5).** This course is designed to enhance knowledge, attitudes, behavior and clinical care directed at geriatric oral health promotion and education. It is designed for dental hygienists and other health care providers who work with the older adult. Teaching methods include seminar, self-instructional modules and a community-based practicum. Offered: Fall Semester

## Economics Courses

**100 Economics Explained (3).** Everything you need to know about how the economy works and where it's going. This course simplifies and clarifies the vocabularies and concepts used to describe all the important economic phenomenon in our society today: unemployment, trade deficits, government budget deficits or surpluses, inflation, investments, and customer debt. It describes where we've been (economically) and assess the future of the economic system we call capitalism.

**101 Essentials Of American Capitalism (3).** This course represents an overview of the principles of economics and their relation to current economic events. It is designed to meet state requirements for elementary education certification as well as to provide a general introduction to economics for non-business, non-engineering, and non-economics majors. Both macroeconomic and microeconomic issues will be covered. Every semester.

**150 Introduction To Labor Studies (3).** This interdisciplinary course offered by The Institute for Labor Studies, covers the role of workers and the labor movement in society and the American political and economic system. Students will gain an overview, from a labor viewpoint, of the organization of work and workers, collective bargaining and representation, and labor's rights, roles, and strategies in a democracy and in the global economy. A particular focus will be the image of the working class and organized labor in the media and among public perception. Prerequisite: None Offered: Yearly

**201 Introduction To Economics I (3).** Economics I deals primarily with macroeconomic or national economic concepts, the economics of the determination of recession, inflation, maintenance of full employment and economic growth, with an emphasis upon the economics of modern Keynesian analyses. It further introduces the economics of Marx and Ayres and discusses relevant and current economic issues. Economics 201 and 202 are prerequisites for all other economics courses except with specific permission of the instructor. Every semester.

**202 Introduction To Economics II (3).** Economics II deals primarily with microeconomics, firm analysis, the principles of demand, supply, elasticity, price determination, costs, income distribution, market structures, trade, and other related social, economic issues. Economics 201, 202 are prerequisites for all other economics courses except with specific permission of the instructor. Every semester.

**300CM Cluster Course: Mexico, Central America And The Human Condition (3).** Faculty from at least two different departments (one of which must be a department in the Division of Humanities, including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

**300CS Cluster Course (3).** Faculty from at least two different departments (one of which must be a department in the Division of Humanities, including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

**301 Macroeconomic Analysis (3).** The economic system as a whole and the ways in which its functioning is affected by the behavior of the interdependent sectors of which it is composed. Major factors affecting national income; use of sectoral accounts in analyzing economic prospects. Offered: Every Semester Prerequisite: Economics 201 and 202

**302 Microeconomic Analysis (3).** Functioning of the individual enterprise and households. Problems confronting business enterprises operating under different types of market situations; influence of the prices factors of production on methods of production; effects that changes in income levels and in relative prices have on sales of different types of goods and services. Every semester. Prerequisite: Econ 201 and 202 Offered: Every Semester

**303H Special Issues In Economic (3).** Readings and discussions of selected economic topics. Content varies over time as economic conditions change. Designed for outstanding students in Principles of Economics. Prerequisites: ECON 202 and/or 202. Semester offered: Fall

**308 Challenges Facing The Us Economy (3).** This course provides an introduction to challenges facing the US economy, such as growing inequality and poverty in the midst of plenty, persistent unemployment in the central cities, the threat of recession or inflation, the problems and opportunities created by an aging society, implementation of welfare-to-work plans, and other topics of interest to students. Semester offered: On request

**310 The United Nations: Politics And Economics (3).** This interdisciplinary course covers many facets of the United Nations, acquainting students with its structure, its operations and its involvement in international events, past and present. It merges politics, economic issues and the history of the UN in an effort to understand more fully the UN's role in the international diplomacy. Students in this course will have an opportunity to participate in various Model UN conferences during the year. Prerequisites: None Offered: Fall Semester Restrictions: None

**312 Theory Of Economic Development (3).** Controversial problems affecting the nature, sources and process of development of industrial technology and the economy of private enterprise. On demand.

**314 Race, Class And Gender: Theory, History, And Policy (3).** Analyzes the ways in which race and gender discrimination result in differences in opportunities and outcomes in society. Begins with a historical overview of the origins of modern racism and patriarchy, and their relation to the rise and development of capitalism. Discursive and nondiscursive factors are investigated. Alternative theoretical approaches to understanding the intersections of race, class, and gender are evaluated. Policy debates on issues related to affirmative action, education, welfare, employment, and others are considered. Prerequisite: None Offered: On Demand

**323P Administration In The Service Industry (4).** Students will examine the nature of service and the scope of administration within the service industry. Additionally, the course will examine the development of service and the service economy. This course may not be used by students to fulfill requirements for the major in Economics or a Concentration in Commercial Economics. Prerequisites: None. Offered: Every Semester.

**336 The Kansas City Economy (3).** This course explores the Kansas City economy in depth from both a micro and macro perspective. The macro approach details how important the Kansas City economy is to the state of Missouri, to the US economy, and in the international arena. The micro approach details the contribution of the many different sectors of the KC area to the overall local economy. Prerequisite(s): Econ 100, 201 or 202 Offered: Winter Restrictions: None

**343P Resource Acquisition And Distribution In The Hospitality Industry (4).** This course will examine economic policy that is the basis for materials acquisition policies and practices within the hospitality industry. Additionally, students will study materials flow from source to final user. Special emphasis will be placed on policies and procedures that maximize resource usage. This course may not be used by students to fulfill requirements for the major in Economics or a Concentration in Commercial Economics. Prerequisites: None. Offered: Fall.

**395 Current Economic Issues (1).** Each of these one-hour courses will deal with one selected topic. Students enrolled should have some background in the social sciences. A maximum of three Economics 395 courses will apply towards the department's graduation requirements for a major.

**395A Economic Issues (1).**

**395B The Economics Of Law (1).**

**395C The Economics Of Energy (1).**

**395D Economic Issues (1).**

**395E The Economics Of Aging (1).**

**395F The Economics Of Minorities (1).**

**395G The Economics Of Poverty (1).**

**395H The Economics Of The Arts (1).** An analysis of the past and present policies regarding the financing of the Arts.

**395I Views Of A Good Society (1).** This course looks at different views of a good society from the perspective of Utopian economics. The materials dealt with in the course will be drawn from Utopian books, supplemented with material drawn from cartoons, art, literature, poetry, film, and music. Prerequisite: None Offered: On Demand

**397A The Economics Of Public Process And Private Choice I (1).** This film/tape course and Economics 397B are specifically designed in the format of the PACE program. Regular majors in economics may count one of these two courses as meeting the 27 minimum required departmental hours. The J.K. Galbraith film series and text, *The Age of Uncertainty*, provide the central theme for this course.

**397B The Economics Of Public Process And Private Choice II (1).** This film/tape course and Economics 397A are specifically designed in the format of the PACE program. Regular majors in economics may count one of these two courses as meeting the 27 minimum required departmental hours. The Milton Friedman film series, *Free to Choose*, provides the central theme for this course.

**404R American Economic History Since 1865 (3).** The course deals with the emergence of Industrial American since 1865. It covers the rise to dominance of the large modern corporation, the problem of economic and social instability and stability, the rise of trade associations, cartels, and government regulation in an unstable economy, and the evolution of American economic policy and national economic planning. Offered: On demand. Prerequisites: Econ 201 and 202

**404RR American Labor History (0-3).** This course examines history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class. Also cross-listed with History 366RR. Prerequisite: Economics 201 and 202

**405 European Economic Systems (3).** A general study of the economic systems of Germany, France, Sweden, the United Kingdom, Russia, and other countries; and the European Economic Union. The course will study the economic-business organization, economic and social policies, trade policies, and the on-going political, economic, and business changes within the area, and their relation to other areas of the world in terms of economics, business and trade. Prerequisite: Either Econ 100, 101, 201, or 202. Offered: Fall

**406WI History Of Economic Thought (3).** Analysis of basic concepts of economic thought, their historical sources and significance. Prerequisite: Successful completion of WEPT Test. Offered: Every semester.

**408 The Twentieth Cntry: Crisis In Eco History/Changing Eco Analysis (3).** The course will deal with selected major historical crisis in the Twentieth Century that changed Economic Theory and our lives, such as the post World War I period; the Depression of the 1930s; the international payments crisis and the development of Bretton Woods; the oil crisis of the 1970s; and the effect of the above upon changing economic analysis such as the Keynesian Revolution and its "counter revolution", and the economic and policy consequences. Prerequisites: Economics 201 and 202; Senior or Graduate standing.

**412 International Trade And Development (3).** This course emphasizes the global allocation of resources and distribution of income in the analysis of economic development and international trade. Major topics include various theories of economic development, comparative advantage, terms of trade, tariffs, quotas, economic integration and the use of trade to foster economic development. Prerequisite: Economics 100

**414 Problems In Latin American Development (3).** Analysis of those historical, geographic, political, social and economic factors which have served to impede the development of the Latin American countries and discussion of development planning as it applies to these problems. Prerequisite: Economics 412 or consent of the instructor. On request.

**416 Law And Economics (3).** This course will examine the use of economic principles in the analysis and application of public and private law. Emphasis will be given to the efficiencies of laws in meeting social objectives, how laws can be modified to become more economically efficient, and the uses of economics in the actual practice of the law. Issues covered will include proofs of liability in antitrust, contracts and employment law using statistical and economic analysis, and the calculation of economic damages in commercial, employment and personal injury/death litigation. Graduate students will be assigned a specific research paper. Prerequisite: Econ 302 Offered Every other winter.

**420 Environment, Resources And Economic Growth (3).** This course focuses on the theory and policy issues involved in resource reation and depletion; environmental destruction, preservation and recreation; and the interrelation of these problems of and prospects for economic growth. Prerequisite: Economic 202 Offered: On request

**421 Mathematical Economics (3).** An introduction to mathematical methods as applied to the questions addressed by economists. The principal methods to be applied are matrix algebra and differential calculus in the context of optimization. Other topics may include integral calculus, differential equations, difference equations, or linear and non-linear programming. Prerequisites: Economics 301, 302 and Math 210

**423P Legal & Social Issues Of The Hospitality Industry (4).** This course will investigate societal and economic issues that have influenced the development of significant industry legal issues. Additionally, students will examine laws pertinent to the hospitality industry and investigate the relationship of these legal issues to historical and current societal issues. This course may not be used by students to fulfill requirements for the major in Economics or a Concentration in Commercial Economics. Prerequisites: None. Offered: Winter.

**425 Intermediate Economic Statistics (3).** An introduction to the empirical side of economics. Estimation theory and the properties of commonly used estimators are covered. Some of the more important topics dealt with are: multiple regression, heteroscedasticity and autocorrelation in regression analysis, analysis of variance and the use of qualitative variables in regression analysis. Hands-on work with computer software designed for econometrics is stressed. No experience with computers necessary. Prerequisites: Economics 301, 302 and Math 235 or its equivalent. Semester offered: Every year.

**429 Environment, Resources And Economic Growth (3).** This course focuses on the theory and policy issues involved in resource creation and depletion; environmental destruction, preservation and recreation; and the interrelation of these problems of and prospects for economic growth. Prerequisite: Economics 202. On request.

**431 Monetary Theory And Policy (3).** A study of the nature and functions of money and the financial system, with emphasis on monetary theory and its application to current banking and financial problems. Recent contributions to monetary theory and current literature. Prerequisite: Economics 301. Every year.

**433P Commercial Economics Aspects Of The Hospitality Industry (4).** This course will examine economic policies that are the basis for accounting and financial practices within the hospitality industry. Additionally, students will explore managerial accounting essentials and examine their use in planning, controlling, and developing budgets within the hospitality industry. This course may not be used by students to fulfill requirements for the major in Economics or a Concentration in Commercial Economics. Prerequisites: None. Offered: Winter.

**435 Public Finance (3).** Problems of public and private sector decision making of revenue-expenditure policies and an examination of the actual legal, political and economic policies for revenues and expenditures of federal, state and local governments. Prerequisite: Economics 302. On request.

**437 State And Local Government Finance (3).** This course investigates the role, problems and relative importance of municipal governments in the United States. Such areas as the demand for public services, tax and expenditure policies, and intergovernmental fiscal relations will be explored in detail. Case studies of state and local governments will be introduced to emphasize the problems and proposed solutions arising in modern municipal governments. Prerequisite: Economics 302. On request.

**438 Economic Policy (3).** Analysis of the confluence of political and economic behavior, the economics of collective action. Prerequisites: Economics 301 and 302. On request.

**442 International Finance (3).** This course emphasizes the global activity and balance of payments implications of government taxation, expenditure and monetary policies under various capital market conditions. Major topics include: exchange rates and the balance of payments; national income determination in an open economy; integrated and non-integrated capital markets; economic growth stabilization policies and the quest for global economic stability. Prerequisite: Econ 301 or equivalent

**448 Socialist Economic Systems (3).**

**450R Regional Economics (3).** Contemporary policy approaches to regional growth and decline are analyzed in this course. Prerequisite: Economics 302 Semester offered: On request

**451 Institutional Economic Theory (3).** Analysis of impact of modern philosophy and developments in social sciences on economic theory. Prerequisites: Economics 301, 302 or consent. Semester offered: Every semester

**458 Urban Economics (3).** An inquiry into the economics of location decisions and the influence of these on urban growth and on the real estate market; the evaluation of urban transportation and other public services; an examination of economic development of ghetto neighborhoods. Prerequisite: Economics 302 or its equivalent, or by special permission of the instructor. On request.

**460 Industrial Organization (3).** The structure, conduct, and performance of American industry. Historical evolution of American industry; alternative industrial systems. Antitrust policies and their alternatives. Technological change and industrial performance. Prerequisite: Economics 301, 302. On request.

**461 Public Utility Economics (3).** This course is designed to examine the theory and practice of public utility economics. It includes study of the public utility concept and how it has evolved and is evolving, the operation of public utilities in the U.S. economy, the methods and practice of regulating utilities, industry by industry case studies and current issues in public utility economics. On request.

**465 The Economics Of Health And Medicine (3).** An economic analysis of the development of the medical market; organized medicine and the structure of existing health delivery systems. The problems of the medical market will be analyzed; the role of insurance will be investigated and alternative public policies will be studied. Prerequisite: Advanced standing or consent of the instructor. On request.

**480 Managerial Economics And Operations Analysis (3).** This course focuses on the application of microeconomic theory to a variety of contemporary business and government problems. Through case studies, students are introduced to the full complexity of actual industrial and government decisions and the diversity of microeconomic tools and concepts that can be brought to bear on these decisions. Prerequisites: Econ 301 and Econ 302. Semester offered: On request

**487 History Of Labor Movements (3).** This course is concerned with the early formation and the transformation of labor unions given the changing American industrial climate. Study will include early union structures, forerunners of modern unions, such as the Knights of Labor, development of the current unions and the potential for union survival in the post-industrial era.

**487H Human Resource Economics (3).** An analysis of the factors determining the productivity of human resources: education, nutrition, job training and work environment. An analysis of work patterns, wage patterns and the impact of automation. Prerequisite: Econ 302 Semester Offered: Fall, every other year.

**488 Radical Political Economy (3).** This course will cover the ideas that constitute radical political economy. It will show how radical political economy can be used to examine current economics and social problems and will outline possible economic structures of utopian visions. Offered: On Request

**490 Readings In Economics (1-3).** Intensive reading and/or research in an area selected by the student in consultation with the professor in any of the following fields: (a) economic theory, (b) history of economic thought, (c) labor economics, (d) urban economics, (e) monetary and fiscal policy and theory, (f) international economics, (g) economic development, (h) comparative economic systems, (i) public finance, (j) public policy toward business, (k) quantitative economics. By permission only. On request.

**495 Colloquium In Economics (3).** Each course will deal with a particular topic in economics: A) Manpower Economics; B) Political Economy; C) Area Studies in Economics-Europe; D) Area studies in Economics-Africa; and E) Area studies in Economics-Asia. Prerequisite: Economics 201, 202. On request.

**497 Internship (3).** The course allows the student to participate in cognate, approved internships of a professional nature. Prerequisite: Senior or graduate standing. Offered by permission only.

## Education Courses

**149 Economics In The K-8 Classroom (3).** This course is designed to help students develop an understanding of economic concepts and principles and to raise their level of comfort for infusing these concepts throughout the K-8 curriculum. Special attention will be given to both national and state economic standards.

**160 Career And Life Planning (2).** Skill development in career planning through processes of self-assessment and self-development and analyzing the structure of the world of work and occupational information, values, clarification and decision making, vocational exploration and preparation for employment.

**180 Introduction To Education (2).** The course will present an overview of education today for those who have a general interest in education or are considering becoming educators. The curriculum provides students with an introduction to current issues in education while incorporating skills needed for academic success. Students will also have the opportunity to gain experience in a K-12 classroom setting (2 credit hours). Prerequisite: None Offered: Fall, Winter, Summer

**189 Special Topics (1-6).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

**189CD Special Topics (1-6).**

**189EE Special Topics (1-6).**

**189FE Special Topics (1-6).**

**189MM Special Topics (1-6).**

**189UE Special Topics (1-6).**

**189UF Special Topics (1-6).**

**189US Special Topics (1-6).**

**289 Special Topics (1-6).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

**289FE Special Topics (1-6).**

**289FL Special Topics (1-6).**

**289IA Special Topics (1-6).**

**289IU Special Topics (1-6).**

**289MM Special Topics (1-6).**

**289MT Special Topics (1-6).**

**289TE Special Topics (1-6).**

**289UE Special Topics (1-6).**

**289US Special Topics (1-6).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

**389 Special Topics (1-6).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

**389MM Special Topics (1-6).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

**402R Algebra For Teachers (3).** This course is designed for secondary school mathematics teachers and teacher candidates. The content of secondary school algebra is analyzed and rationalized from a deep conceptual base with particular attention to those areas within algebra experiencing the greatest amount of change.

**428 Cultural Diversity And American Education (3).** An examination of educational needs and strategies in a culturally diverse society based on a study of several major ethnic and nationality groups in America from historical, anthropological and sociological perspectives. This course may be team-taught.

**434 Classroom Diagnosis And Correction Of Reading Problems (3).** Procedures for the diagnosis and correction of reading problems which are appropriate for classroom teachers. Prerequisite: TE 415.

**439 Content Reading And Language Development (4-12) (3).** Training in how to reduce the magnitude of difficulty experienced by students in making the transition from learning to read to reading to learn. Specific topics include: inquiry training; vocabulary acquisition; study skills; reading for upper level students; critical/constructive reading, writing across the curriculum, school-wide programming, and working with special needs students (e.g., L.D., ESL, culturally, different).

**440 Literature For Adolescents (3).** Focus upon literature for adolescents and ethnic literature, specifically, and upon the special reading interests of the adolescent in relation to the methods and materials of reading in grades 7-12, generally. Attention to literature selection standards, censorship, individualized instruction, and reader response.

**489A Special Topics (1-6).**

**489BP Special Topics (1-6).**

**489Q Special Topics (1-6).**

**489QT Special Topics (1-6).**

**489TA Special Topics (1-6).**

**497 Individual Study (1-6).** Guided study of a selected topic in education. Prerequisite: Permission of instructor.

## Electrical and Computer Engineering Courses

**216 Engineering Computation (4).** Analysis and synthesis of structured digital computer programs for solving engineering problems in a high level programming language, e.g., Pointers, linked-list in object-oriented language. Intro to symbolic language. Prerequisite: Math 210

**226 Logic Design (3).** Design of combinational logic circuits, logic minimization techniques, design of RAM, ROM, PLA, PAL, design of sequential logic circuits, state machine design techniques, digital system design, application of Verilog HDL design throughout the course. Co-requisite: ECE 227 (1.)

**227 Logic Design Laboratory (1).** Laboratory for 226. Experimental topics related to the design of combinational and sequential logic systems and small digital systems. Co-requisite: ECE 226.

**230 Biological Engineering (3).** An introductory course that examines biological systems from an engineering viewpoint using engineering models. The student is introduced to friendly computer tools to model system behavior of first and second order systems and the effects of diffusion. The tools are then used to study neuron models in terms of diffusion, charge drift and the Einstein relation, ion pumps, membrane potential and the Goldman equation. The tools are then used to study closed loop models of human muscles, eye movements and the body's thermoregulation system. Prerequisites: Math 210 and some computer programming skills

**276 Circuit Theory (3).** Kirchoff's circuit laws, Ohm's Law, nodal and mesh analyses, source transformations, superposition, Thevenin and Norton equivalents, transient analysis of 1st and 2nd order systems. AC circuit

analysis, phasors, impedance, sinusoidal steady-state responses, operational amplifiers and PSpice Prerequisites: ECE 216, Phys 250 with ECE 341 or ECE 401H concurrently.

**301 Fundamental Topics In Electrical And Computer Engineering (1-4).**

Undergraduate topics in electrical or computer engineering. Prerequisite: Instructor's consent. Offered: On demand.

**302 Traveling Waves And Fields (3).** Dimensions in electromagnetic wave propagation; per unit length parameters of common transmission line configurations; derivation of general time-domain and time-harmonic (phasor) forms of transmission line equations; Laplace transform solution to arbitrary time excitations-the bounce diagram; introduction to the concept of voltage and current traveling waves; input impedance, VSWR and power flow on a transmission line; open-and short-circuit,  $\lambda/4$  and  $\lambda/2$  length lines; Smith Chart & applications; lossy lines; complex vectors; review of Gauss's, Faraday and Ampere's laws of electromagnetism and differential form of Maxwell's equations; time-harmonic form of Maxwell's equations; Poynting vector; boundary conditions; wave equation from Maxwell's equations; uniform plane waves in lossy and lossless media; power flow in uniform plane waves; skin depth; normal incidence of uniform plane waves on good conductors. Prerequisites: MATH 250, Phys 250, Pre-/Co-requisite: ECE 341 or ECE 401H, co-requisite ECE 303

**303 Traveling Waves And Fields-Laboratory (1).** Students will be required to write computer programs that exploit the MATLAB toolbox features and write short technical reports on the results. Typical projects are: (a) signal amplitude and delay distortion on lossy transmission lines, (b) performance comparison of transient behavior of PCB, stripline, microstrip transmission line configurations and (c) cross-talk modeling on transmission lines (optional). Prerequisite: PSpice and MATLAB knowledge/proficiency. Co-requisite: ECE 302

**316 Microcomputer Fundamentals (3).** Computer arithmetic, combinational and sequential circuit analysis and design. Computer organization, bus control, input/output transfers, and interrupts. Introduction to microprocessor-based systems. Prerequisites: ECE 216 with ECE 317 concurrently. No longer offered, please see advisor.

**317 Microcomputer Fundamentals Laboratory (1).** Laboratory for ECE 316. Combinational and sequential logic. 8-bit microprocessors. No longer offered, please see advisor.

**326 Logic Design (3).** Digital electronics, integrated circuit level logic design, algorithmic state machines, microprocessor architecture and interfacing and digital systems design methodology. Must be taken concurrent with ECE 327. Prerequisites: ECE 316 with a C or higher. No longer offered, please see advisor.

**327 Logic Design Laboratory (1).** Laboratory for 326. Experimental topics related to the design of sequential logic systems and small digital systems. Must be taken concurrent with ECE 326. Prerequisites: ECE317 with a C or higher. No longer offered, please see advisor.

**330 Electronic Circuits (4).** Semiconductor device physics, elementary analysis and design of integrated analog electronic circuits that utilize diodes, BJT's, and MOSFET's in current mirrors, differential amplifiers and multistage amplifiers with active loads and operational amplifiers. Prerequisite: ECE 276 with a C or higher, Co-requisite: ECE 331

**331 Electronic Circuits Laboratory I (1).** Semiconductor devices to include pn junction diodes, bipolar and field effect transistors, operational amplifiers and applications, diode circuit applications, current mirrors, differential amplifiers and amplifiers with active loads. Prerequisite: ECE 378, Co-requisite: ECE 330.

**341 Engineering Mathematics (3-4).** Linear homogeneous and inhomogeneous differential equations, Laplace transform with applications; trigonometric and complex (exponential) Fourier series; Fourier transforms; Z-transforms; Matrices-properties and definitions; Gaussian elimination, linear systems, Cramer's rule, rank and inverse of a matrix; eigenvalue and eigenvectors; Complex number system, DeMoivre's theorem, analytic functions and Cauchy-Riemann equations, Taylor and Laurent series, Cauchy's integral formulas, Cauchy residue theorem; multi-valued functions. Their applications to transient analysis of electrical circuits, communication systems, EM theory, etc. will be discussed. Prerequisites: MATH 250 and ECE 216. Students who have Math 345 should enroll in 3 credit hours.

**358 Control Systems (3).** Study of feedback techniques, with applications to control systems. Includes modeling, applications of Bode plot, root locus, state-variable, and Nyquist methods. Prerequisite: ECE 380. Offered: Every year; Winter.

**366 Power Engineering (3).** Magnetic circuitry in general and in machinery; DC machine theory, operation, applications; transformer circuits, synchronous machine theory, operation applications; basic principles of energy conversion; use of matrices; basic principles of power transmission and control. Prerequisites: ECE 376 with ECE 302 concurrently. Offered: Winter.

**376 Circuit Theory II (3).** A continuation of ECE 276. R-L-C transients responses, complex s-plane methods, resonance, frequency response, two-port networks, Laplace transforms for circuit analysis. Prerequisite: ECE 378 concurrently.

**378 Systems Lab (2-3).** Introduction to the use and limitations of basic instruments used in electrical testing and measurement. Experimental techniques and laboratory safety. Data gathering, interpretation and presentation. Statistical data evaluation methods. Preparation of laboratory reports. Experimental work supporting theoretical concepts developed in ECE 276. Prerequisite: ECE 276.

**380 Signals And Systems (4).** Continuous and discrete-time signals and systems, linearity and time-invariance, impulse response and convolution. Fourier analysis of discrete and continuous signals and systems and the application of Laplace, z, and Fourier transforms. Prerequisite: ECE 341, and ECE 381 concurrently. Offered: Fall

**381 Signals And Systems Lab (1).** Computer Laboratory for ECE 380. Various signal processing software programs (MATLAB and DSP) are used to investigate properties and applications of continuous and discrete time signals and systems. Corequisite: ECE 380. Offered: Fall

**400 Problems In Electrical And Computer Engineering (1-4).** Analytic or experimental problems pertaining to electrical or computer engineering. Prerequisites: Senior standing, instructor's approval and an approved petition from his or her degree coordinator.

**401 Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401AS Topics In Electrical Engineering (1-4).**

**401CA Topics In Electrical Engineering (1-4).**

**401DE Special Topics ECE (1-4).**

**401FE Topics In Electrical Engineering (1-4).**

**401H Topics In Electrical And Computer Engineering (1-4).**

**401NN Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401PE Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401PG Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401PL Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401RB Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401RD Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401RS Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401WN Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**401XX Topics In Electrical And Computer Engineering (1-4).** Topics covering current and new technical developments in electrical or computer engineering. Prerequisites: Senior standing and instructor's approval.

**402WI Senior Design I (2).** First capstone design course in electrical and computer engineering. Provides and accounts for laboratory, library, research and other work needed for the development of the project proposal. Stresses written and oral presentations and ethics. Prerequisites: ECE 330, ECE 380, and ECE 428R. Must have passed the WEPT test and can only be taken if student is within three semesters of graduation.

**403 Senior Design II (3).** Second capstone design course in electrical and computer engineering. Project management, professional engineering practice, economic, environmental and safety considerations in project design, the development of written and oral presentation skills and working in teams. Provides laboratory experiences in prototyping, fabrication and troubleshooting of a design project. Prerequisite: ECE 402WI.

**412 R.F./Microwave Techniques For Wireless Systems (3).** Fundamental concepts of electromagnetic radiation from Maxwell's equations; basic

antenna parameters-gain, directivity, radiation & aperture efficiency, effective area, polarization; calculation of radiation patterns of linear antennas (proof omitted); electromagnetic boundary conditions; oblique incidence of plane waves; Snell's laws and polarizationsimilarities between traveling waves on transmission lines and plane waves; Friis formulas; antenna noise temperature; basic antennas-dipole and monopoles; simple array theory and beamforming concepts; propagation path loss-ground reflections; review of transmission lines & Smith Chart; quarter-wave transformers and L-section matching; single stub tuning; microwave network analysis-port-matrices; fundamentals of filter theory; low - and high-pass filters; scaling and transformations; cellular propagation and link loss prediction; 2-ray and 3-ray (optional) models; introduction to smart antenna concepts; WiMAX systems, introduction to and applications of the state of art r.f. CAD tools, but not necessarily restricted to, IE3D, FIDELITY, for simulation and modeling projects for the course. PrerequisiteS: ECE 302, ECE 380, ECE 341 OR ECE 401H, MATLAB proficiency.

**413 R.F./Microwave Techniques For Wireless Systems Laboratory (1).** Design of probe-and stripline-fed rectangular and circular patch microstrip antennas; simulation of performance using CAD tools; modeling of R.F. propagation path loss using CAD tools for site-specific prediction applications. Prerequisites: ECE 302, ECE 380, ECE 341 or ECE 401H, MATLAB proficiency. Co-requisite: ECE 412. Offered on demand

**414 Microwave Engineering For Wireless Systems (3).** Microwave networks; s-, z-, y- and abcd matrices; signal flow graphs; circular waveguides; stripline & microstrip characteristics; impedance transformers; power dividers and directional couplers; microwave filters; microwave resonators; active microwave circuits. Prerequisites: ECE 302, ECE 380, ECE 398 Restrictions: MATLAB proficiency required. Offered on demand

**415 Microwave Engineering For Wireless Systems Lab (1).** Design & performance simulation of microwave filters and active microwave circuits; comparative analysis of impedance transformers; use of CAD tools in microwave circuit design. Prerequisites: ECE 414 Restrictions: MATLAB proficiency required.

**416 Neural And Adaptive Systems (3).** A hands-on introduction to the theory and applications of neurocomputing. Includes classification, function approximation, supervised and unsupervised learning, time series analysis, and adaptive filtering using different feed-forward and recurrent artificial neural networks. Prerequisites: ECE 341 and CS 394R; or an intermediate knowledge of calculus, probability, and linear algebra along with instructor's consent. Offered: Winter

**424 Computer Design (3).** Design of general purpose computers including arithmetic and control units, input/output, memory systems, microprogramming and introduction to parallel structures and processing. Prerequisite: ECE 226. Offered: On demand.

**425 Computer Design Laboratory (1).** Laboratory for ECE 424. Design and implementation of basic computer units including fixed and floating-point adders and multipliers, ALU's, control units. Prediction of performance using various software packages. Prerequisites: ECE 227 with ECE 424 concurrently. Offered: On demand.

**426 Microcomputer Architecture And Interfacing (3).** Advanced microprocessor architecture and programming; interfacing and programming of peripherals. Parallel and serial communication, interrupts, direct memory access, coprocessors. Prerequisite: ECE 226. Offered: Fall

**427 Microcomputer Laboratory (1).** Laboratory for ECE 426. Microprocessor hardware and software involving interfacing of peripherals to 8-bit and 16-bit microprocessor. Simple D/A conversion, music composition, and various programmable controllers. Prerequisites: ECE 227 with ECE 426 concurrently. Offered: Fall

**428R Embedded Systems (3).** This course examines the hardware/software aspects associated with developing microcontroller-based computer systems. The students learn about the architecture and assembly language for popular microcontrollers and how to take advantage of a variety of input/output options that include binary ports, A/D and D/A converters, communication ports, and interfacing techniques for various applications Prerequisites: ECE 426 and ECE 427 Co-requisite: ECE 429

**429 Embedded Systems Laboratory (1).** The laboratory introduces the students to a variety of challenging design projects using microcontroller interfacing techniques to develop real world applications, such as digital thermometer and digital pressure monitoring systems. Students must produce an individual design project. Prerequisite: ECE 226 and ECE 227 Co-requisite: ECE 428R

**430 Electronic Circuits II (3).** Study of feedback amplifiers, regulated power supplies, sinusoidal and nonlinear oscillators, integrated circuit analog and digital devices, digital electronics. Prerequisite: ECE 330. Offered: On demand.

**435 Design And Simulation Of Vlsi Circuits (3).** Design of NMOS and CMOS integrated circuits with emphasis on digital applications. Device models are developed for circuit simulation. Prerequisite: ECE 330 or instructor's consent.

**436 Power Electronics I (3).** Power electronic device characteristics, important circuit and component concepts, phase controlled rectifiers, line communicated inverters and AC phase control. Includes laboratory projects. Prerequisite: ECE 330.

**454 Robotic Control And Intelligence (3).** Introduces robotics; robot system characteristics; robot motive power systems; geometric structure of robots; sensors and feedback; control applications and algorithms; data acquisition and output actuation functions; robots and Artificial Intelligence; microprocessor applications in robotics. Prerequisites: ECE 358 and ECE 226, or ECE 426. Offered: on demand.

**458R Automatic Control (3).** Techniques for feedback control system modeling and design. Includes applications of Bode plots, root locus, Nyquist methods, state-variables, compensator design, and computational aids. Prerequisites: ECE 341 and ECE 380

**460 Electromechanical Conversion I (3).** Magnetic circuitry in general and in machinery; DC machine theory, operation, applications; transformer circuits, synchronous machine theory, operation applications; basic principles of energy conversion; introduction to power electronics; and basic principles of power transmission and control are covered. Prerequisite: ECE 276 or ECE 302.

**461 Electromechanical Conversion II (3).** Application of fundamentals and concepts of power systems to practical power plant and industrial applications. Identification of the significant internal components of power system equipment. Single and Three Phase Circuits, DC and AC Generators/Alternators, Transformers, DC and AC Motors, DC and AC transmission, and System Electrical Protection. Prerequisite: ECE 460.

**462 Symmetrical Components Analysis Of Power Systems (3).** Short circuit analysis using symmetrical components. Simultaneous faults and open conductors. Prerequisite: ECE 460 Offered: On demand.

**464 Electric Transportation And Industrial Drives (3).** Electric vehicle propulsion and industrial drives; review of DC and AC machine principles, traction motor requirements and performance, DC and AC industrial drives, heating effects. Prerequisite: ECE 460. Offered: On demand

**466 Power Systems I (3).** Power System fundamentals; Methods of power system analysis and design; Modeling of power systems components such as transmission lines, transformers and generators; Analysis of steady state operation of power system and unbalanced conditions. Prerequisites: ECE 460 or ECE 276, and ECE 341 or ECE 401H.

**467 Power Systems II (3).** Power system matrices. Power flow analysis. Gauss-Seidel and Newton-Raphson techniques. Fast-decoupled load flow. Economic dispatch. Voltage control system. Power system control. Prerequisites: ECE 466 and ECE 458.

**468 Electric Power Distribution Systems (3).** Operation and design of utility and industrial distribution systems including distribution system planning; load characteristics; application of distribution transformers; design of subtransmission lines, distribution substations, primary systems, secondary systems; application of capacitors; voltage regulation and reliability. Prerequisite: ECE 460. Offered: On Demand.

**469 Computer Applications To Power Systems (3).** Load flow, fault, network reduction, and transient stability studies on digital and analog computers. Prerequisites: ECE 460K. Offered: On demand.

**470 Reliability Of Electric Power Systems (3).** Principles of reliability as applied to Power Systems with an overview of current methods to measure reliability of Power Systems are introduced. Analytical and Monte Carlo models for component state and system state duration, with contingency analysis and linear programming for optimal power flow are also covered. Restoration times and cost assessment after component or system failures due to internal or external problems provide focus to practical operating principles. Prerequisite: ECE 460, CS 394R or equivalent.

**472 Power Generation Systems (3).** Multi discipline survey of power generation systems and subsystems, including coal-fired steam, co-generation and combined cycle, and combustion turbines. With a goal of reviewing all the major subsystems, this course exposes the electrical engineer to all the mechanical, thermodynamic, and chemical processes of power generation systems. Prerequisite: Senior standing

**474 Introduction To Communication Systems (3).** Introduction to principles and fundamentals of communication systems. Signal representation and analysis, Fourier transform and applications, probability and random variables, analog and digital modulation techniques. Prerequisites: ECE 380. Offered: Every year, Fall.

**476 Introduction To Wireless Communication Systems (3).** Principles of wireless communication analysis and design. Digital communication basics, cellular radio, wireless PCS communications, multiple access techniques, channel coding and equalization, and standards of digital cellular/PCS systems. Prerequisites: ECE 474. Offered: On demand.

**478 Modulation And Transmission Of Signals (3).** Review of Fourier analysis of signals, study of signal transmission. Analog modulation and demodulation, use of nonlinear devices in modulation systems, sampling and pulse modulation systems, sampling and pulse modulation. Prerequisites: ECE 330 and ECE 380. On demand.

**480 Digital Signal Processing (3).** Concepts, analytic tools, design techniques used in computer processing of signals: signal representation, sampling, discrete-time system analysis, recursive/non-recursive filters, design/implementation of digital filters. Prerequisites: ECE 226 and ECE 380. Offered: On demand.

**481 Digital Signal Processing Laboratory (1).** Laboratory for ECE 480. Processing methods for discrete-time signals and digital filters. Prerequisites: ECE 378 with ECE 480 concurrently. Offered: On demand.

**482 Analog Signal Processing (3).** Fundamentals of network synthesis with emphasis on the design of analog filters; the approximation problem, sensitivity, LC and RC passive filters, RC active filters, and switched capacitor filters. Prerequisites: ECE 330 and ECE 380. Offered: on demand.

**483 Analog Signal Processing Laboratory (1).** Laboratory for ECE 482. Analog filters based upon active-RC circuits. Integrated circuit universal active filters and switched capacitor active filters. Prerequisites: ECE 331 with ECE 482 concurrently. Offered: On demand.

**484 Digital Image Processing (3).** Fundamentals of digital image processing hardware and software, including digital image acquisition, display, compression, transforms and segmentation. Prerequisites: ECE 380 and experience in a high-level programming language. Offered: On demand

**486 Pattern Recognition (3).** Pattern recognition techniques of applications such as automatic recognition for speech, visual inspection systems, clinical medicine, automatic photographic recognition systems and advanced automation systems. Prerequisite: Senior standing Offered: On demand.

**488 Introduction To Digital Image Processing (3).** Fundamentals of digital image processing hardware and software, including digital image acquisition, image display, image enhancement and compression. Prerequisites: Senior standing; experience in high-level language. Offered: On demand

**490 Digital Computer Applications In Engineering (3).** Use of digital computers for the solution of engineering problems involving roots of equations, simultaneous equations, curve fitting, integration, differentiation, and differential equations. Prerequisites: Math 250, ECE 216 and junior standing in engineering. On demand.

**491 Internship (0-6).** Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/nocredit only and students must be in good standing with at least 18 credit hours of ECE courses counting towards the degree. Registration by consent number only: petition forms for ECE 491 internships are available in the office of CSEE Division and on the web. Prerequisite: At least 18 hours of ECE courses toward the degree.

**496 Special Topics (1-4).** Selected Topics in specific areas of electrical or computer engineering. May be repeated for credit when the topic varies. Prerequisite: At least 18 hours of ECE courses toward the degree. Offered: On demand

**497 Directed Readings (1-4).** Readings in an area selected by an undergraduate student in consultation with a faculty member. Arrangements must be made prior to registration. Prerequisite: Consent of instructor Offered: On demand

**498 Research Seminar (1-4).** Undergraduate research based on intensive readings from the current research literature under the direction of a faculty member. Arrangements must be made prior to registration. Prerequisite: Consent of instructor Offered: On demand

**499 Undergraduate Research (1-3).** Completion of a project, including a final written report, under the direction of a faculty member. A prospectus must be accepted prior to registration. Prerequisite: Consent of instructor Offered: On demand

## English Courses

**100 Introductory Writing (3).** The study and practice of the rhetorical principles and basic skills of standard English prose, and critical reading. Frequent writing exercises emphasize formulating a thesis, organization, development and the grammatical elements of sentences. This course carries no credit toward graduation in the College of Arts and Sciences. However, on

the recommendation of the instructor, a student may take the standard English 110 final examination. If, in the opinion of the Director of Freshman English and two other readers, the student passes the examination with a B or better grade, the student may receive English 110 credit.

**100E Special Studies In Culture Research And Pedagogy For Igta (1).** The study and practice of classroom teaching techniques, especially those that compensate for non-standard English pronunciation. Exercises and supplemental tutoring focus on lecture organization, strategies for clear presentation, and improving pronunciation and conversation skills. The course prepares students for a required videotaped lecture and the SPEAK test. This course carries no credit toward graduation in the College of Arts and Sciences. Offered: Every semester.

**100F Ss:Academic English/International Grad Teaching Assistants & Appl (3).** The study and practice of standard spoken English combined with the study and practice of classroom teaching techniques. Exercises focusing on improvement of pronunciation, and formal (classroom presentation) and informal (conversation) English speaking are combined with techniques for lecture organization, strategies for clear content presentation, and with analysis of the American post-secondary educational culture. This course is designed for prospective International Graduate Teaching Assistants who need to improve their English communication skills and obtain an understanding of American educational culture. This course carries no credit toward graduation in the College of Arts and Science.

**100S Special Topics In English As A Second Language (1-3).** A course designed to address the specific needs of an individual student or group of students studying English as a Second Language. In addition to targeting English skills, the course may address topics or skills which are not covered in the standard Academic English curriculum of the Applied Language Institute. This course will accommodate individual students or groups of students studying at the Institute for periods of time other than the standard semester length. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisite: ALI Approval Offered: Fall/Winter/Summer

**100T Toefl Preparation (3).** This course will prepare students to take the TOEFL (Test of English as a Foreign Language), in either the Paper(PBT) or Computer-based (CBT) form, and/or to improve their scores from previous attempts. Exercises focus on developing the skills and strategies necessary for navigating TOEFL questions while continuing to develop the general English language skills that support success on the TOEFL. The course will provide students with a personal awareness of strengths and weaknesses so they may focus their test preparation work in and outside of class. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisite: Applied Language Institute approval Offered: Every semester

**101B Academic Speaking & Listening For Non-Native Speakers I (3).** The study and practice of speaking and listening for basic social functions in English. Exercises include the practice of basic descriptions and the development of oral/aural skills for beginning ESL students. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**101C Academic Reading & Vocabulary For Non-Native Speakers I (3).** The study and practice of reading with basic English vocabulary in context. Exercises focus on reading comprehension, identifying the topics of short readings, and the introduction of basic dictionary skills. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**101D Academic Writing For Non-Native Speakers I (3).** The study and practice of basic writing skills including handwriting, spelling, capitalization and punctuation. Frequent short exercises emphasize basic sentence structure, biographical description, and completion of standard forms. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval Offered: Fall/Winter/Summer Letter grade assigned.

**101G Academic Grammar For Non-Native Speakers I (3).** The study and practical application of basic sentence structure and word parts. Frequent exercises emphasize use and understanding of simple sentences, questions, directions, and descriptions in the present and past tenses. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute Approval. Offered: Fall/Winter/Summer Letter grade assigned.

**102B Academic Speaking & Listening For Non-Native Speakers II (3).** The study and practice of speech in environments such as the classroom, work, and simple social occasions. Exercises focus on students's ability to distinguish sounds and to produce them correctly in the context of a sentence and to listen for specific information. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**102C Academic Reading & Vocabulary For Non-Native Speakers II (3).** The study and practice of reading narrative and expository texts and standard forms. Exercises focus on the development of vocabulary and introduction of reading techniques such as identification of topics and main ideas, skimming, scanning, prediction, and inference. This course carries no credit toward graduation in the College of Arts and Science. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**102D Academic Writing For Non-Native Speakers II (3).** The study and practice of techniques for writing short paragraphs in English. Frequent exercises emphasize various forms of paragraph organization and the improvement of punctuation and mechanical skills in writing. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**102G Academic Grammar For Non-Native Speakers II (3).** The study and practical application of basic sentence structures, including future and irregular past tense constructions. Frequent exercises emphasize use and understanding of comparatives, wh-questions, and compound nouns and verbs. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer

**103B Academic Speaking & Listening For Non-Native Speakers III (3).** The study and practice of listening for and producing speech in the past, present and future tenses. Exercises introduce note-taking techniques and focus on the ability to hear and express abstract ideas. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**103C Academic Reading & Vocabulary For Non-Native Speakers III (3).** The study and practice of longer reading passages of various rhetorical styles. Exercises focus on improvement of reading speed and the development of vocabulary and comprehension through complex inferences. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**103D Academic Writing For Non-Native Speakers III (3).** The study and practice of writing multi-paragraph academic essays. Frequent exercises emphasize point-of-view, process writing, and a variety of rhetorical styles. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**103G Academic Grammar For Non-Native Speakers III (3).** The study and practical application of complex sentence structures, including perfect and perfect progressive tenses. Frequent exercises emphasize use and understanding of passive voice, gerunds and infinitives, articles, conditionals, and modals. The course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**104B Academic Speaking & Listening For Non-Native Speakers IV (3).** The study and practice of standard English, particularly in the college classroom. Exercises include training in academic lecture comprehension and note-taking as well as formal (classroom presentation) and informal (conversation) English speaking. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Lang. Inst. approval. Offered: Fall/Winter/Summer Letter grade assigned.

**104C Advanced Academic English Reading For Non-Native Speakers IV (3).** This course focuses on preparing students to deal effectively with sophisticated academic reading materials by guiding them in the development of a conscious and reflective approach toward reading. It emphasizes advanced reading skills of interpretation, inference, critical analysis, evaluation and application. There will be frequent exercises addressing the acquisition and practice of study skills and collaborative academic work. Prerequisites: Completion of English 103C with a grade of B or better or Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**104D Academic Writing For Non-Native Speakers IV (3).** The study and practice of rhetorical principles in standard English prose. Frequent writing exercises emphasize critical thinking and research skills as well as fluency and accuracy in academic writing. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Lang. Inst. approval. Offered: Fall/Winter/Summer Letter grade assigned.

**104G Advanced Academic English Grammar For Non-Native Speakers IV (3).** This course focuses on the analytical understanding and application of English grammar. Students will be expected to observe usage patterns of the English language in a combination of both normative and prescriptive grammars appropriate for academic English application. There will be frequent exercises emphasizing mastery of complex grammar structures

including all verb tenses, dependent clauses, modals, and unreal conditionals, and of the relationship between ideas and the construction of sentences in academic discourse. Prerequisites: Completion of English 103G with a grade of B or better or Applied Language Institute approval. Offered: Fall/Winter/Summer Letter grade assigned.

**105A Advanced Academic English (Multiskills) For Non-Native Speakers V (3).** The comprehensive study and practice of standard English skills for advanced students of English as a second language. Level readings focusing on current issues serve as the basis for frequent writing exercises and for classroom discussions and presentations. This course carries no credit toward graduation in the College of Arts and Sciences. Prerequisites: Applied Language Inst. approval. Offered: Fall/Winter/Summer Letter grade assigned.

**110 English I: Introduction To Academic Prose (3).** This course introduces students to college-level reading, writing, and discourse analysis: it engages students in the analysis and creation of texts that reveal multiple perspectives about specific rhetorical situations and cultural issues. In addition to learning how to revise by analyzing their own writing, students will learn to edit their own work and use proper academic documentation. Offered: Every Semester

**110A Freshman English I For Non-Native Speakers (3).** The study and practice of analytical and critical reading. The study of basic rhetorical principles and the practice of those principles in frequent short papers; close reading of prose. Prerequisites: Applied Language Institute approval. Offered: Fall/Winter/Summer.

**200 Introduction To Undergraduate Study In English (3).** An investigation of reading, writing, and research practices associated with studies in English. Students will learn about multiple forms, genres, and critical approaches, as well as encounter texts from various historical periods and places. Required of all English majors before enrolling in 400-level English courses.

**204 Writing About Literature (1).** This course is designed to be taken either prior to or concurrent with a student's first literature course. It introduces students to literary criticism in its broadest, most generic sense, as a stylized response to reading. Students in the course will be introduced to different approaches to writing about literature, to methods of generating ideas, and focusing and developing a topic. Prerequisite: English 110 or its equivalent.

**205 Popular Literature (3).** The course focuses on writing in English by a range of popular authors from a variety of periods and places, historic and contemporary. The course may include popular stories, songs and ballads, the scripts of blockbuster plays and films, best-selling novels, and widely distributed nonfictional prose.

**213 Introduction To Drama (2-3).** Beginning with an intensive study of a few plays analyzed to elicit general principles, the course moves on to consider several representative examples of each of the major periods and types of Western drama, from the Greeks to the present. The two hour version of this course will be offered only off-campus.

**214 Introduction To Fiction (3).** Emphasis in this course is on critical reading of short stories and the novel selected from all periods of English, American, and European literatures. The course will introduce the systematic study of fiction as a literary genre and will equip students for more advanced work in literature. Writing assignments are designed to aid in the understanding of the structure and content of the material covered. Every semester

**215 Introduction To Poetry (3).** An introduction to the study of poetry for students desiring a basic course either to develop a greater appreciation of poetry or to prepare for more advanced courses in literature or creative writing. Class discussions will focus on close readings of poems and analysis of poetic techniques. Writing assignments will complement reading and class discussion and will enable students to develop their own critical and creative skills.

**225 English II: Intermediate Academic Prose (3).** This course extends the work of English 110 with an additional emphasis on research. Each section of English 225 uses a combination of book-length and shorter texts on focus on specific historical and/or cultural issues. As they learn to participate in scholarly conversations, students will find and evaluate library and internet sources. As with English 110, this course emphasizes revision, editing, and proper academic documentation. Satisfactory completion of English 110 and sophomore standing are prerequisites for English 225. Every semester. Note: English 225 or its equivalent is a prerequisite for all 300 and 400 level English courses.

**225A English II For Non-Native Speakers (3).** The study and practice of expository writing and analytical and critical reading geared to the needs of students for whom English is not the first language. The course emphasizes the development and integration of all areas of language comprehension and production. The writing focus is on kinds of organization, diction, style, etc. used in academic writing in the United States. Frequent research papers. Prerequisite: Satisfactory completion of English 110 or English 110A and sophomore standing. Applied Language Institute approval. Offered: Fall/Winter/Summer.

**241 Women And Literary Culture: Introduction (3).** The course offers an introduction to women as producers and consumers of literature. Students will become acquainted with women writers, explore women's reading practices, and interrogate the issues that have surrounded women's participation in cultural arenas.

**250 Introduction To Language Acquisition And Diversity (3).** Investigation of the basic principles of first and second language acquisition. Topics addressed include language competency, socio-cultural factors in language, dialects, acquisitional principles, and language diversity. Students will take part in monitored classroom observations in public schools, and will critically analyze how the topics addressed in class apply to real life and to teaching situations. A service learning component is included.

**299 Form And Structure Of Writing (3).** This course is required for students who have twice failed the English Proficiency Test (WEPT) and is open only to students who have failed the test at least once. The class will cover the basic conventions of successful expository and academic writing. Emphasis will be placed on methods of development and on strategies for organization. This course satisfies neither the college humanities requirement nor the junior-level writing requirement. Completion of the course with a grade of C or better does fulfill the WEPT requirement for graduation, however, and renders students eligible to enroll in courses designated Writing Intensive (WI). Does not count toward graduation.

**300 Interdisciplinary Studies:Cluster Course Offerings (3).**

**300CB Cluster Course: Women In A Man's World: Gender, Sex & Status In Classl Antq (3).**

**300CD Cluster Course: American Social Film:Silver Screen&American Dream (3).** This course will combine American social history and film history in the sound era. Using Hollywood entertainment films, the course will look at Hollywood as an indicator of social, political and economic conditions in the United States since the 1930s. The main topics are representations of the American dream and nightmare, poverty and affluence, success and failure. This course is offered as a cluster with Communication Studies 402CD, History 400CP, and American Studies 300CD.

**300CE Cluster Course: Radical Changes Since 1945 (3).** This cluster will focus on modernism, post-modernism and expressionism in the visual arts and literature since World War II. Common lectures will address intellectual movements—such as existentialism and formalism—and cultural development—such as the increased impact of technology and mass media—in contemporary society. By focusing on these movements, the cluster course hopes to provide an integrated view of the literature and visual arts of the period and to draw upon analogous developments in contemporary architecture, music, philosophy and film.

**300CS Cluster Course:Clio&The Other Muses:Hist&Culture 5Th Cent Athens (3).** Faculty from at least two different departments (one of which must be a department in the Division of Humanities including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

**300CY Cluster Course: Ancient World/Cinema (3).** this course will explore the tradition of depicting the ancient mediterranean world film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literary and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released. This course is cross-listed with HIST 400CY.

**301WI Writing And The Academy (3).** This course examines social and ethical issues raised by academic reading and writing. While some attention is paid to the formal aspects of academic prose within specific disciplines, the main emphasis of the course is on the cultural consequences of the different ways that academic knowledge is created and taught. In addition to studying the language and structure of academic reading and writing, the course explores the various rhetorics of the academy in terms of a broad range of subjects including economics, gender, education, history, and myth. This course satisfies the junior-level writing requirement and counts towards the writing minor. Prerequisites: English 110, 225 and successful completion of the WEPT. Offered every semester.

**303WI Introduction To Journalism (3).** Introduction to the styles and techniques of reporting and writing basic news through assignments in straight news, features and in-depth stories. Exposure to the history and principles of American journalism. Practical application in writing news and news feature articles. Also offered as Communication Studies 303WI.

**304WI Writing And Technology (3).** (Formerly English 230). This course takes a student-centered approach to writing about and with technology. The course examines the reciprocity of culture and technology in intersecting local and global contexts. Course materials will vary depending on the instructor,

but all sections will use genres of technical writing to explore the relationships between specific institutional and professional environments and such broader issues as economics, gender, history, myth, and nature. Prerequisites: English 110, 225 and pass on WEPT. Offered: Every semester.

**305WI Theory And Practice Of Composition (3).** (Formerly English 220). A course in expository writing for the student with superior writing preparation and ability. The work of the course will include readings on the nature of language, the writing of frequent short essays and a long paper. Admittance by consent of the instructor. (NOTE: Students may not receive credit for more than one of the following: 305, 306, 403). Prerequisites: English 110, 225, and successful completion of the WEPT. Offered: Every semester.

**310 Introduction To Linguistics/Language Science (3).** This course is a comprehensive introduction to the theory, methodology, and applications of the science of language. It examines properties of human language, covers all branches of language science, and provides a foundation for a critical understanding of language issues. Required for English 470; recommended for English 320 and 330.

**311 American Literature I (3).** A survey of American literature and culture from its beginnings to 1865. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, oral, contact and/or slave narratives, folklore, and songs.

**312 Creative Writing I Fiction (3).** A course centered on the short story. Emphasis is placed on three areas: general principles governing the writing of fiction; practice in short fiction (primarily the short story, but including the novella); criticism; and technical skills (including editing and rewriting). Prerequisite: Concurrent enrollment in or completion of English 213 or 214 or instructors permission.

**313WI Reporting (3).** A seminar of practical application in advanced reporting. Assignments to cover news events and to pursue in-depth news reports on the campus and off. Work is turned in on deadline and critiqued by the instructor. Prerequisites: English 110, 225, and successful completion of the WEPT.

**315 Creative Writing Poetry (3).** Writing and rewriting poems, with discussion of techniques needed to produce desired effects. Analysis and evaluation of student work. Examination of technical means utilized in selected poems by accomplished poets. Offered: Winter. Prerequisites: Concurrent enrollment in or completion of English 215 or instructors permission.

**316WI Literary Nonfiction (3).** Literary Nonfiction is a writing intensive course in the reading and writing of nonfiction prose as a literary art. We'll survey the historical development of literary nonfiction (especially the essay), sample contemporary authors of the genre, write critical commentary on works we read, and compose personal essays of our own. The course is not exclusively a literary seminar nor a creative writing workshop, but seeks to mix and make connections between these modes, in the tradition of the essay itself. Prerequisites are English 110,225,and completion of the WEPT.

**317 Introduction To British Literature I (3).** A survey of British Literature and culture from its beginnings to the mid-18th century, including works by Chaucer and Milton. Required for all English majors.

**318 Bible As Literature (3).** A critical study of the major portions of the Old and New Testaments and the Apocrypha, with special attention to the development of literature from oral tradition, the literary genres, themes and archetypes represented in the collection, and the diction and style which have influenced later literature. Consideration also of the relation of Biblical literature to the historical, religious, and cultural milieu of the ancient Near East.

**319 Myth And Literature (3).** A study of classical myth including readings from Homer to Ovid, analysis of selected myths in later literature, art and music, and a study of contemporary definitions and approaches to myth.

**320 Structure Of English (3).** Not a remedial grammar course. Methods of linguistic inquiry and grammatical description. Study of traditional and modern schools of syntax, especially transformational grammar. Practice describing the structure of sentences. Application to the teaching of grammar in high schools.

**321 American Literature II (3).** A survey of American literature and culture from 1865 to the present. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, essay, lyrics, and film.

**323 Shakespearean Drama (3).** An intensive critical study of 12 of the representative major plays, including history plays, comedies, tragedies, and tragicomedies; an extensive reading of two to four significant plays in each of these categories. Elizabethan stage conditions and social background are also considered. Required of all English majors.

**325 Arthurian Legends (3).** Focusing on writers such as Marie de France, Chretien de Troyes, Sir Thomas Malory, Alfred, Lord Tennyson, Sara Teasdale, Bernard Malamud, and Marion Zimmer Bradley, this course examines the legend of King Arthur and his Round Table as a recurring myth,



repeatedly manifested in time through literature, art, history, music, and film.  
Prerequisite: None

**326 Modern And Contemporary Irish Literature (3).** This course examines a range of texts written by Irish-born writers from the end of the nineteenth century on. While it is likely the course will include texts by the most famous Irish writers, such as Yeats, Joyce, Beckett, O'Brien, Heaney, and Friel, course materials will vary from semester to semester and may focus on a specific genre, historical period, or area of interest. Offered: On Demand

**327 Introduction To British Literature II (3).** A survey of British Literature and culture of the Romantic, Victorian, and Modernist periods, this course will cover several genres including at least one novel from each period. Required of all English majors. Offered: Every semester

**329 Film As Art (3).** An application and formulation of critical approaches to the major artistic achievements of the important creators of this modern aesthetic form – D.W. Griffith, Chaplin, Hitchcock, Bergman, Einstein, Kubrick.

**330 History Of The English Language (3).** The study of English beginning with the Indo-European language family up to and including varieties of English spoken around the world today. Both outer history and the inner history of phonology, morphology, syntax, and lexicon will be addressed.

**331 African American Literature I (3).** This course provides a survey of African American literature from its beginnings to the "Harlem Renaissance of the 1920's and '30's". Areas of interest will include abolitionist literature (especially Slave Narratives), turn-of-the-century literature and the Harlem Renaissance. This course will examine any or all of the following literary forms: fiction, poetry, drama, autobiography and essay. It will view African American literature in its historical and cultural contexts. Prerequisite: None.

**332WI African American Novel (3).** This course will examine the African American Novel in the nineteenth and twentieth centuries; the emphasis will be on the period from the 1920's to the present. The novels will be examined in their historical and cultural contexts. Offered: On demand

**333 African American Literature II (3).** A survey of African American literature from its beginnings to World War I. This course will cover a range of authors, several genres, and culture forms, which may include fiction, poetry, drama, autobiography, essay, oral, contact and/or slave narratives, folklore, and songs.

**336 Contemporary American Literature (3).** An intensive study of American literature since World War II, concentrating on the profound literary changes following that war, as a new kind of poetry, fiction and drama emerges which chronicles the simultaneous dissolution of old values and the efforts to establish new ones. Writers such as Lowell, Roethke, Ginsberg, Ellison, Salinger, Bellow, Mailer, Baldwin, Flannery O'Connor, Pynchon, Katherine Anne Proter, Heller, Richard Wright, Tennessee Williams, Arthur Miller, and Edward Albee will be considered along with others, as American writing develops in our time.

**340A Classical Literature In Translation (3).** This course will focus on representative authors and works from the Greek and Roman Classical periods, such as Homer, Sophocles, Euripides, Aeschylus, Aristophanes, Plato, the Greek Lyricists, Virgil, Horace, Juvenal, Ovid and Plautus.

**342WI Women And Rhetoric (3).** A study of the position of women within the traditions of western rhetoric. Students will examine the rhetorical practices of women as they pursue both public and private goals. Christine de Pizan, Sor Juana Ines de la Cruz, Hannah More, Maria Stewart, Frances Willard, Ida Wells-Barnett, Meridel Le Sueur, and Gloria Anzaldua are among the female rhetorians who may be studied in this course. Prerequisite: Successful completion of the WEPT. Offered: On Demand

**344WI Women & Literary Culture: Genre Focus (3).** A study of women writers that focuses on genre, i.e., texts that share a common set of conventions. The course will explore the conventions associated with a particular genre in various historical periods and consider the ways in which gender and genre intersect in shaping texts and their interpretation. Prerequisite: Successful completion of the WEPT Offered: On Demand Restrictions: None

**345WI Women And Literary Culture: Historical Focus (3).** A study of women's literary culture in a specific historical period either as broadly defined as Medieval or Renaissance or as narrowly defined as a decade or movement (e.g., 1960's, abolitionist movement). This course includes women writers across multiple boundaries (e.g., national, generic, racial, sexual, socio-economic). Content will change depending on the instructor. Prerequisite: Successful completion of the WEPT

**350 The 18Th Century Novel (3).** A detailed examination of the development of the novel in the 18th-century. The course emphasizes the evolution of the novel from such predecessors as rogue literature, the picaresque story and the romance, due to changing social realities. The novelists studied may include Austen, Behn, Fielding, Godwin, Haywood, Richardson, Smollett, and Sterne. Prerequisite: None Restrictions: None

**351 Special Readings (1-3).** Readings in a period, genre or theme to be selected by the instructor with attention to the needs of students who are interested in literary topics not covered in regular offerings. Proposals for a course in such readings require the approval of the department.

**355 The Novel Before 1900 (3).** Intensive attention to novels in English written before 1900, which may include comparative or analytical studies of genre; critical reception of novels; serialization, gender issues; authors and editors; and valuation. Offered: On demand.

**360 The Modern Novel (3).** A study of the 20th-century novel, American, British and Continental, with attention to the development of fiction during this century. This course deals with novelists principally active before 1930, such as Conrad, James Joyce, Kafka, Hemingway, Lawrence, Woolf, Mann, Fitzgerald, and others. Offered: Fall.

**365 Contemporary Novel (3).** This course deals with novelists principally active since 1930 such as Faulkner, Camus, Cary, Dos Passos, West, Heller, Barth, Greene, Lessing, Solzhenitsyn and other post-World War II writers.

**375 Colonial Literature (3).** An exploration of colonialism through the study of a variety of texts, which may include literary, historical, and theoretical texts. These texts should represent the formation and elaboration of discourses surrounding colonialism. Texts will be drawn from more than one genre and from the metropole as well as multiple colonial contexts. The course will consider several definitions of colonialism and related terms such as empire, imperialism, and nationalism. Prerequisite: None

**376 Ancient Concepts of the Hero (3).** This course traces the ancient concept of the hero by reading selected ancient works by authors such as Homer, Thucydides, Livy, Plutarch, Caesar, Tacitus, and Sallust. Students will also examine the impact of the ancient concept of the hero on modern literature and art. Also listed as ENGL 376 This course traces the ancient concept of the hero by reading selected ancient works by authors such as Homer, Thucydides, Livy, Plutarch, Caesar, Tacitus, and Sallust. Students will also examine the impact of the ancient concept of the hero on modern literature and art. Also listed as CLAS 376

**400CA Cluster Course: Images Of The Human Body In Renaissance (3).** Focusing on Renaissance conceptions of the human body, this cluster treats the following topics as they are reflected in Renaissance literature, art, astrology, astronomy, biology, anatomy, medicine and politics: A) The dignity of the human body B) Microcosm and macrocosm C) The human body and the heavens D) Stranger manifestations: freaks and beasts E) The humors F) Disorders of the human body G) The body politic H) The human body as an object of study

**400CB England King's And Shakespeare's: Literature, History, Film (3).** The aim of this cluster course is to study the historical and dramatic personae of selected English kings: John, Richard II, Henry IV, Henry V, Henry VI, Richard III, and Henry VIII. In common sessions History and English will alternate lectures. The English focus will be on Shakespeare's two tetralogies and individual histories, discussing significant themes, characters and performance elements. Students will also be asked to familiarize themselves with the critical commentaries on these plays, especially recent theoretical studies about politics and gender construction. Film versions of the plays will be shown to demonstrate how directorial interpretation influences an audience's perception of these kings and their worlds. In addition to two exams and shorter written exercises, students will be required to write an interdisciplinary essay. Graduate students will be expected to write longer, more extensively researched papers.

**400CF Cluster Course: Courts And Culture In The Middle Ages (3).** This cluster course offers and interdisciplinary approach to the study of the Middle Ages, Focusing on medieval cultures in Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts to investigate not only the "high culture" of the courts but also the interactions of people from various social backgrounds in Western Europe. Cross listed with For Lang 400CF and Hist 400CF

**400CQ Cluster Course: Sinai And Olympus: Two Views Of Man And God (3).** An examination of the two distinct views of the universe and the place of man and God in it as reflected in the literature of the Hebrews and the Greeks. A comparison of the various types of creative expression such as philosophy, historical writing, drama, rhetoric, and law. Readings are in English.

**401WI Feature Writing (3).** Survey of the techniques of news feature writing and practical application in writing the news feature, the historical feature, travel, personal feature, etc. Assignments are given each week and student manuscripts read in class. Prerequisites: English 110, 225, and successful completion of the WEPT.

**402 Newspaper Editing (3).** Practical laboratory experience in newspaper copy editing, simulating actual newsroom problems and practices, with emphasis on handling wire service stories; grammar and newspaper style; reporter accuracy, fairness, and avoidance of libel; news management; layout and production; headline writing.

**403WI Writing In Cultural Contexts (3).** This course focuses on writings that evolve from cultural, intercultural, and natural environments and offers development of students' critical reading, writing, and thinking skills by focusing on rhetorical situations and the more global contexts of writing. Students enhance their understanding of leadership and cooperation through synthesizing their knowledge and abilities of written communication with knowledge they have gained in other courses. Required for business students. Offered for undergraduate credit only. (Note: Students may not receive credit for more than one of the following: 305, 306, 403). Prerequisites: Engl 110 and 225 or equivalent and successful completion of the WEPT. Offered: Every semester.

**408 Harlem Renaissance (3).** This course examines the period from 1920 to 1940, known as the Harlem Renaissance, a time of unprecedented literary and cultural creativity by black artists. This course explores a variety of cultural productions, not only traditional forms of literature such as novels, short stories, plays and poetry, but also nonliterary objects of study such as painting, sculpture, and music.

**410 Black Women Writers (3).** This course explores the writings of African American Women Writers. The course examines how these writers have interacted with and often revised stereotypical representations of African American womanhood typically found within canonical and African American male literatures. The course will examine literature (which might include fiction, poetry, autobiography, and drama) of the nineteenth and twentieth centuries; the majority of the works will be by modern and contemporary authors such as Nella Larsen, Zora Neale Hurston, Toni Morrison, and Terry McMillan. By placing the works in this sort of cultural and historical context, it will be possible to examine the unique tradition of African American women's writing as well as individual texts. Prerequisite: None.

**412 Chaucer (3).** Readings from Chaucer's most important works, especially "The Canterbury Tales" and "Troilus and Criseyde" with emphasis on them as types of medieval genres and on the Middle English language. Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students.

**413 Renaissance Literature I (3).** English literature from the time of Wyatt and Surrey to the beginning of the 17th century, including the works of Spenser, Marlowe, Sidney, Shakespeare and others. Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students.

**414 Milton (3).** A study of Milton's prose and poetry, with special attention to "Paradise Lost". Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students. Offered: On demand.

**415 Restoration And Early 18th-Century British Literature (3).** British literature from the late 17th-century to the mid 18th century. Selected writers may include Addison and Steele, Behn, Congreve, Defoe, Dryden, Finch, Milton, Pope, Rochester, Swift, and Wortley Montagu. Prerequisites: English 317 or permission of instructor. Offered: On demand

**416 The Romantic Period (3).** An extensive study of selected writers (such as Austen, Barbauld, Byron, Coleridge, Hazlitt, Hemans, Keats, Gilpin, the Shelleys, Wollstonecraft, and Wordsworth) organized around literary themes and/or cultural issues important to the Romantic period. Prerequisite: English 327 or permission of the instructor. This prerequisite applies only to undergraduate students.

**417 Modern Poetry (3).** Study of works by modernist poets such as Hopkins, Yeats, Frost, Stevens, Williams, Moore, Pound, H.D., Eliot, Millay, Hughes. Offered: On demand.

**418 19th-Century American Literature (3).** An intensive study of either selected major American writers in the 19th-century or of 19th-century literary movements. Prerequisite: English 311 or permission of instructor. This prerequisite applies only to undergraduate students.

**422 Medieval Literature (3).** Western religious and secular verse and prose, to the 15th-century. Late Middle English works are read in the original; all other selections in translation. Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students. Offered: On demand.

**423 Renaissance Literature II (3).** English literature from 1600 to the beginning of the Restoration, including the works of Donne, Jonson, Milton and other contemporaries. Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students. Offered: On demand.

**425 18th-Century British Literature II (3).** British literature in its critical and historical context from 1750 to 1798. The writers studied may include Blake, Burney, Collins, Johnson, and Gray. Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students. Offered: On demand.

**426 The Victorian Period (3).** An intensive study of selected writers (such as Arnold, Braddon, the Brontes, the Brownings, Dickens, Darwin, Eliot,

Gaskell, Hardy, Ruskin, and the Rossettis) organized around literary themes and/or cultural issues important to the Victorian period. Prerequisite: English 327 or permission of the instructor. This prerequisite applies only to undergraduate students.

**427 Contemporary Poetry (3).** Study of works by contemporary poets (post World War II), such as Auden, Bishop, Hayden, Berryman, Rukeyser, Larkin, Rich, Plath, Heaney, Boland, Komunyakaa. Offered: On demand.

**428 20th-Century American Literature (3).** an intensive study of either selected major American writers in the 20th-century or of 20th-century literary movements. Prerequisites: English 321 or permission of instructor. This prerequisite applies only to undergraduates.

**429 Screenwriting I (3).** An introductory course in the craft of writing screenplays for movies and television. Emphasis is placed on both the genesis of screenplay ideas and the practical considerations of executing them. Close attention is paid to the inherent differences in writing a script for film versus television. Students are expected to master fundamental screenwriting techniques. The aim is to complete at least one rough draft for a full-length film. Prerequisite: English 329 or permission of the instructor. This prerequisite applies only to undergraduate students.

**430WI Advanced Technical Writing (3).** This course is designed for those who plan to do or teach professional, business or technical writing. Beginning with a brief background in the history of technical writing, the course will deal with current theories and methods of teaching technical and professional writing, and will cover such areas as business usage; technical linguistic problems and theories; the language of contracts, specifications, and other binding documents; and computer-oriented problems. Prerequisite: Successful completion of the WEPT. Offered: Every Semester

**431 18Th-Century British Literature (3).** British literature from the mid to late 18th century. Selected writers may include Blake, Burney, Collins, Equiano, Fielding, Gray, Johnson, Sheridan, and Wollstonecraft.

**432 Advanced Creative Writing Prose (3).** A course for advanced students of fiction writing. Open to students who have taken English 312 or its equivalent. The class will proceed through analysis of models, discussion of general principles, critique of student work. Students will simultaneously be encouraged to experiment and to refine the form and subjects best suited to their talents. Emphasis will remain on the short story, though there may be units in other forms—novella, film script, the non-fiction essay.

**433 Histories Of Writing, Reading, And Publishing (3).** A study of selected topics concerning the material practices of writing, reading, and publishing within specific cultural and historical contexts. Issues examined may include authorship, education, information technologies, libraries, literacy, periodicals, popular literature, publishers, and communities of readers. Prerequisite: One appropriate introductory course at the 300 level. Offered: On Demand

**434 Postcolonial Literature (3).** An exploration of postcolonialism through the study of literary and theoretical texts created by or representing peoples whose historical experience has been decisively shaped by the experience or legacies of colonialism. Texts will be drawn from a variety of genres and from several countries. The course will consider several definitions of postcolonialism and related terms such as cosmopolitanism, hybridity, diaspora, and nationalism. cross-listed with 5534. Offered: On demand

**435 Advanced Creative Writing Poetry (3).** Advanced Creative Writing Poetry. An advanced poetry workshop that includes intensive reading of contemporary poetry and aims at each student creating a portfolio of publishable poems. The focus of the course will vary to address a variety of topics such as metaphor and closure; imitation and the line; form and voice. May be repeated once for credit. Prerequisite: For Undergraduates Restrictions: English 315 or equivalent Offered: On demand

**436 Poetic Forms (3).** An advanced creative writing course that focuses on intensive study of and practice in metrics and traditional and nonce forms. May be repeated once for credit. Prerequisite: For Undergraduates Restrictions: English 315 or equivalent Offered: On demand

**437 Prose Forms (3).** The making of a work of prose requires expertise with the structure of the chosen form, and an understanding of the relationship of form to content. This class teaches the techniques for planning and drafting major prose forms which could include the very-short story, the story, novella, novel, linked-story collection, episodic novel, essay novel, the play, the creative nonfiction book, and others. Students will learn how to create particular prose forms and how to use content as a guide to inventing new forms. We will examine some of the best examples of both traditional and newly invented forms by writers such as Anton Chekhov, Katherine Anne Porter, Tim O'Brien and Sandra Cisneros. Prerequisite: 312 Offered: Each year

**440 American Culture (3).** Texts that offer perspectives on key historical themes of American culture. Texts may be grouped around any culturally significant principle (e.g. region, race, gender, class, ethnicity, religion) or theme (e.g. the mythology of the frontier, marriage and domesticity, the

American Dream). The course may be taken twice for credit, providing substantive changes in topics. Prerequisites: 311 and 321 or permission of the instructor. These prerequisites apply only to undergraduate students. Offered: On demand.

**441 Girls And Print Culture (3).** This course deals with girl's relationships to the continually evolving print culture. Students will examine various literary representations of girlhood by adult writers, explore texts directed at girls (e.g., conduct books, periodicals, textbooks), and study the writing and reading practices of girls themselves.

**445 History And Principles Of Rhetoric (3).** A study of selected writings of ancient, and modern rhetoricians illustrating key issues in the development of Western discourse theory and practice. Issues examined include the relationships between rhetoric and knowledge, orality and literacy, and rhetoric and poetics. Attention will also be given to the implications of rhetorical theory for modern language instruction. Prerequisites: None. Offered: Fall 1998 and on demand.

**447 Introduction To Literary Criticism (3).** An introduction to major schools or methods of literary criticism. The first third of the course is an historical overview of criticism from Aristotle to Northrop Frye. The remainder of the semester is devoted to a study of genetic, formalist, mimetic, affective, intertextual, and deconstructionist approaches. Prerequisite: Junior or senior status and six hours of literature.

**448 Professional Writing Program External Internship (1-3).** These internships combine academic work with practical experience gained interning at leading communications businesses in the metropolitan area. On the academic side, interns are required to submit work in their chosen communications field for evaluation by the faculty of the Professional Writing Program. On the external side, students gain valuable practical experience in the areas of print and electronic journalism, business communications, technical writing, book publishing and features syndication. Internships are granted on a competitive basis. References are required. No student may be awarded more than one such internship. References and permission of the instructors are required. Prerequisite: None.

**449 Publication Practicum (1-3).** This course provides practical experience with *New Letters* magazine, *New Letters on the Air*, and *BkMk Press* in business analysis/reporting, copy-editing, manuscript evaluation, promotion/grant development, library research, market research, and other skills. The practicum is limited to two students per semester, to be chosen on the basis of demonstrated writing and organizational skills. References are required. May be taken for no more than three credit hours over a maximum of two semesters. Permission of the instructors required. Prerequisite: None.

**450 Special Readings (1-3).** Intensive individual readings in a field, genre or individual figure to be selected by a student or a group of students in consultation with an instructor willing to direct the project. Generally limited to graduating seniors who have completed the majority of the work for their major. Not open to students in their first semester at UMKC. May be repeated for credit. No more than six hours of independent study (exclusive of English 499) may be used to fulfill the 33-hour requirement for the English major. Offered: Every semester. Arrangements must be made prior to registration.

**451 Shakespeare Comedies And Histories (3).** A study of Shakespeare's major comedies and history plays with special emphasis on his dramatic works before 1600. Prerequisites: English 317 and 323 or permission of the instructor. These prerequisites apply only to undergraduate students.

**452 Early English Drama (3).** English religious and secular drama prior to Shakespeare. Mystery and morality plays are studied, with emphasis on their literary and social backgrounds. Close reading of such works as "Everyman", "The Wakefield Second Shepherd's Play" and "The Spanish Tragedy." Prerequisites: English 317 and 323 or permission of the instructor. These prerequisites apply only to undergraduate students. Offered: On demand.

**453 Modern Drama, 1880-1945 (3).** A study of modern drama: Continental, British, and American, including history and development, critical theory, and literary evaluation. This course will focus on the earlier modern playwrights from Ibsen and Shaw, with special attention to naturalism. Offered: On demand.

**455 Studies In The Novel 1740 - 1900 (3).** An intensive study of no more than three major novelists of the eighteenth or nineteenth century. The content of the course will change, depending on the instructor. Prerequisite: The completion of six hours of literature or permission of the instructor.

**460 Special Offerings (1-4).** The visiting professor who gives this course determines what its content shall be. All aspects of literature and linguistics are within its possible range. Offered: On demand.

**460A Special Offerings (1-4).**

**461 Shakespeare Tragedies And Romances (3).** A study of Shakespeare's major tragedies and late romances with special emphasis on his dramatic literature after 1600. Prerequisites: English 317 and 323 or permission of the instructor. These prerequisites apply only to undergraduate students. Offered: On demand.

**462 Restoration And 18th-Century Drama (3).** The drama after the restoration of the monarchy and the reopening of the theaters through the 18th-century. Special emphasis is placed on the comedy of manners and the heroic drama in the Restoration and the sentimental comedy in the 18th-century. Includes such playwrights as Dryden, Congreve, Etherege, Wycherley, Steele, Lillo, Cumberland, Sheridan, and Goldsmith. Prerequisite: English 317 or permission of the instructor. This prerequisite applies only to undergraduate students. Offered: On demand.

**463 Contemporary Drama II (3).** A study of contemporary drama: Continental, British, and American, including history and development, critical theory and literary evaluation. This course will focus on the more recent writers, including the absurdists, with special attention to experimental drama. This course is a continuation of English 453. Offered: On demand.

**465 Studies In The Modern Novel (3).** An intensive study of no more than three major twentieth century novelists. The content of the course will change, depending on the instructor. Prerequisite: The completion of six hours of literature or permission of the instructor.

**470 Introduction To Descriptive Linguistics (3).** General introduction to linguistics science. Linguistic analysis, structures and change. Language families. Historical reconstruction. Generative grammar. Prerequisite: English 310 or permission of instructor. The prerequisite only applies to undergraduate students. Prerequisite: 310. Offered: On demand.

**498 Senior Seminar On Writing In The Secondary Classroom (3).** This course is intended to help students move from discussions of education & composition theory to classroom research and practice. Students will examine their own language uses, study current composition pedagogy, and undertake action research projects in cooperation with teachers affiliated with the Greater Kansas City Writing Project. In a culminating study, students will compile their action research data and prepare classroom resources based on their findings. English 498 is designed for English/Secondary Education majors. Other education majors may enroll with instructor's permission. This course is offered fall semester only and cannot be taken for graduate credit. Prerequisite: None Offered: Fall Semester Only

**499 Senior Tutorial (3).** A three-hour comprehensive reading and research tutorial (to be taken during the student's final semester) leading to the writing of a senior paper. A requirement for all English majors. For regular English majors and those with an emphasis in secondary education, the paper will be a critical or scholarly study of 20-25 pages. For journalism and creative writing students, the paper will be a creative writing project of similar length. Prerequisite: Students must have completed all core requirements before enrolling in this course. Each semester.

## Entrepreneurship Courses

**215 Entrepreneurship: An Introduction (3).** This course is designed to provide students with an understanding of the process for identifying and evaluating entrepreneurial opportunities. Students will also learn how strategy, marketing, financing, legal matters, and cash flow impact opportunities in terms of execution and growth, and how to position a new firm for success. Even those who do not feel that they are entrepreneurs will benefit by discovering how to function more effectively in entrepreneur-led organizations. Students responsible for technical innovation and business development within existing organizations should find this course helpful.

**312 Creating New Ventures (3).** This course is designed to help understand the economic, legal, and managerial factors that influence the creation of new wealth. Students will also learn how to develop venture ideas through the preparation and presentation of a detailed business plan and the evaluation of business plans prepared by classmates. In the process, students will develop a personal appreciation for the challenges and rewards of entrepreneurship. Prerequisite: ENT 215 or ENT 315 (can be taken concurrently) or ENT 220

**315 Entrepreneurship: An Introduction (3).** This course is designed to provide students with an understanding of the process for identifying and evaluating entrepreneurial opportunities. Students will also learn how strategy, marketing, financing, legal matters, and cash flow impact opportunities in terms of execution and growth, and how to position a new firm for success. Even those who do not feel that they are entrepreneurs will benefit by discovering how to function more effectively in entrepreneur-led organizations. Students responsible for technical innovation and business development within existing organizations should find the course helpful. Prerequisite: Not open to students enrolled in Bloch School degree programs.

**322 Managing the Growing Business (3).** This course is designed to introduce students to the challenges of the rapidly growing business. Students will learn about the new skill sets that must be acquired and the information that must be collected to support growth, as well as the external support (e.g., bankers, attorneys, accountants, and investors) that can help facilitate growth. In this process, students will acquire an understanding of the ways that entrepreneurs must change as their organizations evolve.

**341 Technology and New Ventures (3).** Students will learn the skills needed to create successful, high-value enterprises, with an emphasis on markets for

technology and venture capital. Case studies will emphasize both information technologies and energy/environmental technologies. Prerequisite: ENT 215 or ENT 315 (can be taken concurrently) or ENT 220

**361 Product Innovation Management (3).** Students will examine the product development process from idea generation and evaluation; to design, development, and testing; and through market launch. Additional topics include technology forecasting and assessment, R&D management, technical planning, and organizational models. Prerequisite: MKT 324 or BA 324, or consent of instructor

**364 Small Business and Entrepreneurship (3).** This course explores the operational, strategic, legal, financial, family, and business issues found in family-owned and managed companies, and in franchise businesses. The course will provide students with the tools to be successful in such enterprises.

**412 Venture Capital Finance and Investment (3).** This course provides students with an understanding of the venture capital market. Students will learn how private equity funds are raised and structured, and how the venture capital market compares with other sources of capital. Students will also learn how investments are selected, negotiated, valued, and structured.

**425 Corporate Entrepreneurship (3).** Students receive an introduction to the field of corporate entrepreneurship, including the effectiveness of different models of corporate entrepreneurship. Specific topics include the creation of an entrepreneurial culture within the organization, the translation of opportunities into attractive corporate investments, corporate venturing, and the role of venture champions.

**432 Entrepreneurial Marketing (3).** Students will focus on the development of a marketing plan for a business (as opposed to a new product), looking at issues that are relevant for new ventures and also for small and growing organizations. Topics include the design of products and services, the evaluation of market potential, pricing, the development of distribution relationships, and communication.

**446 Entrepreneurial Selling and Sales Force Management (3).** This course assists students in developing a successful sales plan for a new venture. The first half of the course deals with sales techniques; the second half addresses important sales force management topics such as recruitment, training, deployment, motivation, compensation, and evaluation.

**460 Creating the Enterprise (3).** Creating the Enterprise is an experiential, capstone course that is built around the development and presentation of a business plan in a team competition. The course requires students to integrate their learning from accounting, finance, marketing, and various other business disciplines. Prerequisites: ACTG 211, FIN 325 or BA 325, MKT 324 or BA 324, MGT 330 or BMA 305, and DSOM 326 or BA 426

**491 Small Business Management Practicum (3).** Advanced study and practice in actual case situations. Students will work as teams in a number of business cases requiring the identification of problems, the proposal of solutions and the responsibility for implementing those solutions where practicable in area business firms. Prerequisite: Advanced senior standing. Offered: Each term.

**496 Internship: Entrepreneurship (1-3).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Prerequisite: Admission only by prior approval and consent of instructor

**497 Special Topics: Entrepreneurship (1-3).** Study and research in areas of special interest under individually faculty direction. Prerequisites: Senior standing and pre-registration consent of instructor.

**497F Special Topics: Entrepreneurship (1-6).** Study and research in areas of special interest under individually faculty direction. Prerequisites: Senior standing and pre-registration consent of instructor.

## Environmental Science Courses

**110L Understanding The Earth Laboratory (2).** Laboratory and field demonstration and exercises in environmental science. Weekly exercises or field trips. This lab should preferably be taken in the same semester as Env Sci 110R. Prerequisite: None Offered: Each semester

**110R Understanding The Earth (3).** This introductory course surveys the processes that shape our planet. Topics include: plate tectonics and mountain-building, rivers and oceans, atmospheric circulation, weather and climate, and the amazingly complex relationships between life on earth and the physical environment. Prerequisite: None Offered: Each semester

**210 Issues In Environmental Science (3).** Explores important environmental issues such as air and water pollution, water supply, climate change, agriculture and food supply, environmental health, ecosystem disruption, environmental management, environmental ethics, and energy resources. Topics may vary depending on current events. Offered: Fall and Winter

**310 Field Experience In Waste Management (3).** Overview of waste management issues. Nature, classification and disposal of waste. U.S. laws

governing the management of solid, hazardous, biologic and nuclear waste. Lectures and discussions will be supplemented by visits to waste management facilities to study methods and technologies used for wastewater treatment and disposal of solid, hazardous and biologic wastes. The course includes both local and out-of-town travel. Final report required. Prerequisites: Jr/Sr or instructor's consent Offered: Summer

**496 Environmental Internship (1-4).** Students obtain practical experience working for local engineering and environmental firms, or governmental agencies. Specific duties and application requirements will vary depending on the funding organization's needs. Junior or senior standing required for undergraduates. Applicant (s) must be accepted for the position prior to enrollment. Prerequisite: Permission of instructor Offered: Summer, Fall or Winter as available.

## Environmental Studies Courses

**430 Soil And Groundwater Remediation (3).** Review of basic geoenvironmental concepts. Nature, cause, and occurrence of contaminated soil and groundwater. Principles of remediation, discussion of cleanup goals and various remediation alternatives and technologies. Design a remediation system: Project planning, data requirements, cost considerations, and implementation. A class project is required. Prerequisites: Geol/Geog 335 or permission of instructor Offered: Winter

**499WI Environmental Studies Practicum (3).** Students conduct research, participate in discussions, and prepare written reports on selected topics concerning the environment. Prerequisites: Senior standing and successful completion of the WEPT exam. Offered: Winter.

## Euphonium Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major. (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Euphonium I (2-4).**

**102 Freshman Euphonium II (2-4).**

**201 Sophomore Euphonium I (2-4).**

**202 Sophomore Euphonium II (2-4).**

**301 Junior Euphonium I (2-4).**

**302 Junior Euphonium II (2-4).**

**401 Senior Euphonium I (2-4).**

**402 Senior Euphonium II (2-4).**

## Finance Courses

**325 Financial Management (3).** This course provides an overview of the relationship between business decisions and the value of the firm, as determined by the marketplace. Students will study the composition of capital structure, capital budgeting, and cost of capital theory, including incremental analysis of investment situations. Prerequisite: ACTG 210

**340 Financial Markets and Institutions (3).** Students will receive an introduction to financial institutions, and money and capital markets. Topics to be covered will include the role of government agencies such as the Federal Reserve, interest rate theory, institution management, financial instruments, internationalization, and the impact of e-commerce. Prerequisite: FIN 325 or BA 325

**345 Investments (3).** The course develops the theoretical framework necessary for a systematic approach to portfolio management. Content includes consideration of investment objectives, measurement of risk and returns, alternative uses of invested funds, analysis of securities markets, and the techniques of security analysis. Students will have an opportunity for the creation and management of an investment portfolio. Prerequisite: FIN 325 or BA 325

**419 Financial Statement Analysis (3).** Students will take an in-depth look at the external financial statements that are prepared by corporations, including the tools needed to organize, summarize, and understand corporate financial

data for use in decision making. Ratio analysis, trend analysis, earnings forecasting, bankruptcy predictors, statistical methods important to finance, and financial data bases are among the topics that will be covered. Prerequisites: MGT 302, FIN 325 or BA 325

**427 Debt Instruments And Markets (3).** An overall view of the financing process and the role of financial markets. The course will cover the characteristics of instruments traded in money and capital markets; determinants of and the relationships between different asset prices; and international aspects of financial markets. In particular, topics that will be covered include: Interest rate theory, valuing fixed income securities, managing interest rate risk, derivative financial instruments, capital market equilibrium, managing currency risk and applications of structured fixed income products. Prerequisite: BA 325, FIN 325, ECON 202

**428 Commercial Bank Management (3).** This course presents an overview of financial management of the interest spreads, credit risk, liquidity, and capital positions of commercial banks. Topics to be covered include analysis of bank profitability, lending functions and policy, securities investment strategies, fund attraction, regulatory examination, capital adequacy, and integrated asset/liability management. Instructional media includes cases and computerized bank management simulation. Prerequisites: ECON 202, FIN 325 or BA 325 This course presents an overview of financial management of the interest spreads, credit risk, liquidity, and capital positions of commercial banks. Topics to be covered include analysis of bank profitability, lending functions and policy, securities investment strategies, fund attraction, regulatory examination, capital adequacy, and integrated asset/liability management. Instructional media includes cases and computerized bank management simulation. Prerequisites: ECON 202, FIN 325 or BA 325

**435 Advanced Corporate Finance (3).** The course focuses on the finance function of the firm from the managerial perspective. Topics include working capital management, capital budgeting, financial structure, merger and reorganization, capital rationing, and analysis of risk. Students will use cases and computer techniques. Prerequisite: Nine hours of finance, including FIN 325 or BA 325

**496 Internship: Finance (1-3).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Admission only by prior approval and consent of instructor.

**497 Special Topics: Finance (1-3).** Study and research in areas of special interest under individual faculty direction. Prerequisite: Senior Standing and pre-registration consent of instructor

## Flute Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Flute I (2-4).**

**102 Freshman Flute II (2-4).**

**201 Sophomore Flute I (2-4).**

**202 Sophomore Flute II (2-4).**

**301 Junior Flute I (2-4).**

**302 Junior Flute II (2-4).**

**401 Senior Flute I (2-4).**

**402 Senior Flute II (2-4).**

## Foreign Language Courses

**180 Special Elementary Foreign Languages Topics I (2-5).** Instruction in foreign languages at the elementary level. Essentials of grammar, basic conversation and reading, practical vocabulary. May include introduction of new methods of foreign language teaching, special texts, and languages not offered through regular courses. As needed.

**190 Special Elementary Foreign Languages Topics II (2-5).** Continuation of Foreign Languages and Literature 180. Prerequisite: Elementary I college-level course or equivalent. As needed.

**280 Special Intermediate Foreign Languages Topics I (2-4).** Instruction in foreign languages at the second-year intermediate level. Further development of comprehension and communicative skills. Readings of moderate difficulty and grammar review. May include introduction of new methods of foreign language teaching, special texts and topics, and new languages not offered through regular courses. Prerequisite: Elementary I & II college courses or equivalent. As needed.

**290 Special Intermediate Foreign Languages Topics II (2-4).** Continuation of Foreign Languages and Literature 280. Prerequisite: Third semester college level-course or equivalent. As needed.

**300CM Cluster Course: Mexico, Central America And The Human Condition (3).** Faculty from at least two different departments (one of which must be a department in the Division of Humanities including history) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

**300CS Cluster Course: History Of Russian Culture (3).** Faculty from at least two different departments (one of which must be a department in the Division of Humanities including history) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A. Fall/winter.

**380 Special Topics (1-3).** Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes. Prerequisite: Permission of instructor. On demand.

**400CF Courts and Culture in the Middle Ages (3).** This cluster course offers an interdisciplinary approach to the study of the Middle Ages, focusing on medieval cultures in Europe. Arranged around a series of themes, the cluster will read a variety of documentary and literary texts in investigate not only the "high culture" of the courts but also the interactions of people from various social backgrounds in Western Europe. May be taken for French major with permission of instructor. Cross listed with ENGL 400CF and HIST 400CF.

**400CI Cc:Culture,Kultur,Civilisation:Identity Formation In the Middle Classes (3).** This cluster course will explore the dynamics of bourgeois class formation in Western Europe in the "long" 19th century (1750-1920) from historical, thematic, and theoretical perspectives. It will focus on how this class-based identity developed and functioned in the context of historical and cultural changes and how the bourgeoisie defined themselves vis a vis nobles, peasants, workers, "primitives," and criminals. Class assignments will include historical, literary, theatrical, anthropological, and cinemagraphic sources.

**401 Linguistics And Language Teaching (3).** A survey of issues in linguistics with particular emphasis on areas and applications pertaining to the teaching of foreign languages. Contrastive analysis of the history and structure of Germanic and Romance languages. Examination of social, cultural and biological aspects of language. Prerequisite: Two years of a foreign language at college level and junior/senior standing.

**480 Special Topics (1-3).** Each time this course is offered a particular genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes. Permission of the department chairman required. On demand.

**494 Methods Of Teaching Foreign Languages (3).** Teaching methods and materials for beginning and advanced classes in French, German, and Spanish. Modern language teaching methodology and material will be evaluated and demonstrated, together with effective use of the Language Resource Center, tapes, slides, film strips, and other audio-visual materials. Prerequisite: A 3.0 grade average in the foreign language to be considered for practice teaching. Does not count toward a major in foreign language. Offered in conjunction with the School of Education.

## French Courses

**110 Elementary French I (5).** The goals of this course are an ability to speak and to understand simple (spoken) French as well as to read and write simple prose. Every semester and summer.

**120 Elementary French II (5).** Continuation of French 110. Every semester. Prerequisite(s): French 110 or equivalent. Semester Offered: Every Semester.

**211 Second Year French I (3).** Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisite: French 120. Fall.

**221 Second Year French II (3).** Continuation of French 211. Winter.

**250 Commercial French (3).** Business practices in correspondence in the French language; special vocabulary of business, trade, banking and administration. Refinement of grammatical and stylistic skills. Subjects treated include price inquiries, quotations, offers, orders, complaints, administrative,

banking, and diplomatic correspondence. Prerequisite: French 221 or equivalent.

**280 Special Intermediate French Topics I (2-4).** Instruction of French on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate French Topics II (2-4).** Continuation of French 280. May not be repeated for credit. As needed.

**301 Introduction To French Literature (3).** An introduction to the study of different genres of French literature and techniques of criticism. Readings include representative works of major authors from various periods. Strongly recommended for all majors, to be taken before or concurrently with other literature courses. Winter.

**303 Masterpieces Of French Literature I (3).** An introduction to the history of French literature from the Middle Ages to 1800 stressing the historical context, the major literary movements, and the development of the various genres. Selected readings of the works of the major authors of the period.

**304 Masterpieces Of French Literature II (3).** An introduction to the history of French literature from 1800 to the present stressing historical context, the major literary movements and the developments of the various genres. Selected readings of the works of major authors of the period.

**315 Intermediate Conversation And Composition I (3).** Grammar review: practice in speaking and writing French; emphasis on idiomatic usage and practical vocabulary. Required for major. Prerequisite: French 221 or equivalent. Every fall.

**325 Intermediate Conversation And Composition II (3).** Continuation of French 315. Required for major. Prerequisite: French 315. Every winter.

**340WI French Texts In Translation (3).** Seminar on French texts in translation. Class will be conducted in English and no knowledge of French is necessary. May be taken for major credit upon prior consultation with the instructor. Prerequisites: English 110,225, and WEPT

**350 French Civilization I (3).** An historical introduction to French civilization and culture with emphasis on historical, social and cultural development. Prerequisites: French 221 or equivalent.

**351 Introduction To French Phonetics (3).** Drill and practice in pronunciation in class and in language laboratory. Prerequisite: French 221 or equivalent or permission of instructor.

**352 French Civilization II: Contemporary French Civilization (3).** An in-depth survey of contemporary French culture, including major historical events and movements that have shaped modern France, as well as geography, the political system, family life and education, economics, etc. Prerequisites: French 221 or the equivalent.

**354 French Civilization III: Lyon, Crossroads Of France And Europe (3).** An introduction to French culture and civilization through the history, geography, culture and arts of Lyon and its region. Offered during the Study Abroad Program in Lyon. Offered: Summer semester.

**380 Special Topics (1-3).** Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes. Prerequisite: Permission of the instructor. On demand.

**412 17Th Century French Literature (3).** Selected readings in the literature of the 17th century, with an emphasis on non-dramatic works. Also offered as French 5512.

**413 18Th-Century French Literature (3).** Emphasis on philosophical and social significance. Authors may include Marivaux, Beaumarchais, Le Sage, L'Abbe Prevost, Montesquieu, Rousseau, Diderot. Also offered as French 5513.

**414 Medieval Literature (3).** Selected readings in various genres including epic, romance, theater and lyric. Emphasis will be placed on the intertextual relations and the cultural and historical context surrounding text production in the Middle Ages. Also offered as French 5514.

**415 Advanced Conversation And Composition I (3).** Practice in speaking and writing French, with attention to the elements of style. Continued in French 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated with the consent of the instructor and the department chairman. No more than six hours credit may be applied towards a degree. Prerequisite: French 325. Fall.

**417 16Th-Century French Literature (3).** Selected readings in prose and poetry from Marot through Astree. Authors may include Rabelais, Ronsard, du Bellay, Montaigne, Marguerite de Navarre. Also offered as French 5517.

**425 Advanced Conversation And Composition II (3).** Continuation of French 415. See French 415. Required for teacher certification in French. Prerequisite: French 415. Winter.

**426 20Th-Century French Literature (3).** Selected readings from the Belle Epoque to the contemporary period. Also offered as French 5526.

**435 Directed Discussions In Advanced French (3).** Directed discussion on contemporary French culture. The discussions cover a wide range of topics on modern France: social, intellectual and cultural aspects. Students will participate and have the opportunity to observe and react within a cultural frame of reference. Open to advanced students of French and to teachers of the language for in-service training.

**440 Medieval Romance (3).** The various movements of French medieval romance from the 12th through 15th centuries with an emphasis on the 12th and 13th centuries. Analysis of literary technique and socio-historical context will be stressed. No knowledge of Old French is assumed. Also offered as French 5540.

**444 Renaissance Poetry (3).** French poetry from the Grand Rhetoriqueurs through the Pleiade. Study of poetic forms, major poets and schools, and different approaches to analyzing poetry. Also offered as French 5544. Prerequisites: French 221 or the equivalent.

**445 Epistolarity And The Novel (3).** Explorations of the genre through the analysis of 17th-and 18-century French novels. Introduced by a theoretical review. Also offered as French 5545.

**446 17Th-Century French Drama (3).** The classical period: Emphasis on Corneille, Racine and Moliere. Also offered as French 5546.

**447 19Th-Century French Poetry (3).** The study of the poetry and dominant poetic movements of the 19th-century, with special attention given to different approaches to its analysis. Also offered as French 5547.

**448 20Th Century French Theater (3).** Analysis of major currents of French theater of the 20th-Century, with emphasis upon the postwar period and its movements. Also offered as French 5548.

**452 Medieval Poetry (3).** A study of medieval poetry including religious and secular poetry, Provencal and Old French lyric, the influence of poetry in other genres such as romance and theater, later medieval poetry of the 14th and 15th centuries, as well as a discussion of the origins of the lyric. Also offered as French 5552. Prerequisites: French 221 or the equivalent.

**454 Intellectual Origins Of The French Revolution (3).** Study of philosophical and political texts by Montesquieu, Rousseau, Voltaire, Diderot, etc. on government, society, language, freedom and equality. Critical study of the Enlightenment. Also offered as French 5554.

**455 Fin-De-Siecle And Belle Epoque (3).** Study of the literary, cultural and historical context of this time period in French history, for example: Symbolism, Decadence, and the years 1900-1914. Also offered as French 5555.

**456 20Th Century French Poetry (3).** The study of 20th-century poetry with special consideration given to different approaches to its analysis. Also offered as French 5556.

**457 20Th Century French Narrative (3).** The analysis of major currents in French 20th century narrative, especially fiction and film. Courses will be organized around narrative themes or historical events and will include social and cultural components. Also offered as French 5557.

**463 19Th-Century French Fiction (3).** Studies in the birth, development and variation of French Romanticism. Readings include de Stael, Senancour, Constant, Hugo, Stendhal and Merimee. The advent of realism and naturalism in France. Readings include Balzac, Flaubert, Daudet, De Maupassant, and Zola. Also offered as French 5563.

**470 Studies In Critical Thought (3).** Various currents of 20th-century literary criticism and their political and historical contexts. Also offered as French 5570.

**471 Autobiography (3).** Analysis of autobiographies and autobiographical texts such as diaries and memoirs together with theoretical texts on the genre. The concentration on different periods or issues may change from semester to semester, i.e. the art of autobiography as practiced by 20th-century writers, especially women. Also offered as French 5571.

**472 Francophone Studies (3).** Study of different national Francophone literatures. Reading may include writers from Quebec, Haiti, Africa, Louisiana, Vietnam, the French Indies, etc. Also offered as French 5572.

**480 Special Topics (1-3).** Each time this course is offered a particular author, genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes. Permission of the department chairman is required. On demand.

**490 Special Readings (1-3).** Intensive readings in field or literary figure to be selected by the student in consultation with the instructor. Available, by permission only, to advanced students of French; available only when student cannot take regularly scheduled courses. Prerequisite: 3.0 GPA. On demand.

**499 Senior Seminar (Capstone) (3).** Required for major. Covers seminal works of French literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore,

history of the language, architecture, art and music. To be taken during final Winter Semester of residence. Prerequisite: 21 hours beyond first year. Offered: Winter Semester.

## Geography Courses

**105 Introduction To The Elements Of Geography (3).** A survey of major elements of physical and human geography, with a concise overview of the world's regions. Emphasis on global relationships and distributions, both environmental and cultural. Climates, natural vegetation, land forms, cultural origins and diffusions, economic patterns. Fall and winter.

**150 Introduction To Physical Geography (3).** This course is an introduction to the study of the natural environmental systems of earth—the atmosphere, the hydrosphere, the biosphere, and the lithosphere. The primary objective of the course is to provide a broad overview of these systems at a global scale. This overview will entail descriptions of natural systems and the variations they exhibit both from place to place and through time. It will also entail explaining how natural systems operate and interact with each other, thereby providing a necessary foundation for understanding the tremendously diverse physical geography of earth. Applies to natural science requirement. Prerequisites: None. Offered: Fall semester.

**200 World Geography I (3).** A study of Europe, Australia and New Zealand, Anglo America, and Latin America organized around the basic concepts of human-environmental relationships and spatial interaction. Fall.

**202 World Geography II (3).** A study of Russia and the other former Soviet Republics, the Middle East, the Orient, Africa, and the Pacific World organized around the basic geographic concepts of human-environmental relationships and spatial interaction. Offered: Winter

**203 Introduction To Geographic Information Systems (3).** An introductory course covering the basic principles of geographic information systems focusing on such software programs as ARC-INFO and ARC-VIEW. Offered: Fall and Winter

**210 Human Geography (3).** A study of the geographical underpinnings and distribution of the main elements of culture, including population patterns, language, religion, political territorial organization, settlement, and economic livelihood. The environmental settings, geographic origins, diffusion, and geographic interrelationships of these culture traits are emphasized. Offered: On demand

**215 Introduction To Weather And Climate (4).** Overview of the basic components of the climate system. Emphasis is on the basic physical processes that determine global and regional climate and the linkages between components of the climate system. The theme throughout the course will be importance of climate as one of the major forcing mechanisms in environmental change. Both human-induced and natural climate variability will be covered. Three hours of lecture and two hours of laboratory per week. Offered: Fall

**300 Interdisciplinary Studies:Cluster Courses (3).**

**309 Urban Geography (3).** Historical development, morphology and functions of urban places, including intercity relationships and the relationship between cities and their hinterlands; emphasis on American cities. Offered: On Demand.

**311 Economic Geography (3).** A systematic study of the modern world economy that includes discussion of the location of production and consumption, the nature and role of multinational enterprises in trade, resource limitations to growth, and cultural responses to globalization. Three hours lecture, discussion a week. Offered: On demand

**314 Principles Of Geomorphology (4).** Explores the processes that shape the earth's surface. Focuses on the development and description of fluvial, glacial, eolian, and coastal landforms. Studies the influence of tectonic and climatic factors. Three hours lecture and two hours lab per week. Field trip. Prerequisite: Env Sci 111R or EOL 220; GEOL 230 suggested. Offered: On demand.

**317 Cartography (4).** Design and preparation, by hand and computer, of informative, effective, and attractive maps and other graphics for various geographical purposes, especially term papers, thesis, and public presentations. Lectures, discussion, and laboratory. Offered: On demand.

**319 Descriptive And Synoptic Meteorology (4).** Synoptic weather observations, air mass analysis, analysis of frontal systems, weather disturbances, preparation of weather charts and diagrams used in synoptic meteorology and forecasting. Prerequisites: Env Sci 110R or Geog 215 Offered: On demand

**329 World Political Geography (3).** An analysis of the influence of geographic factors (both physical and human) on the economic and political relationships of the nations of the world. Emphasis will be placed on population size and political viability of states, boundaries and frontiers as limits of national space, problems related to the spatial integration of states, and the independence and interdependence of states within the larger world political system. Offered: On demand

**332 Cultural Geography (3).** A study of the distribution and interpretation of cultural patterns throughout the world. Examined are material and non-material elements of culture such as settlement, land use, technology and belief systems. The geographic origins and diffusion of culture traits are emphasized. On demand.

**333 Geographic Elements Of Urban Planning (3).** Analysis of the changing form and structure of urban places from a planning viewpoint. The focus will be on land-use trends on both the intraurban and interurban levels. Covered will be such topics as planning for urban transportation, new towns, land-use planning, urban renewal, and environmental planning. Offered: On demand

**335 Introduction To Waste Management (3).** Overview of issues in waste management. Nature and classification of waste. Municipal solid waste: disposal methods, design, construction and maintenance of sanitary landfills. Nature and sources of hazardous waste, storage, transportation, treatment and disposal of hazardous waste. Types and sources of nuclear waste; disposal of high level and low level nuclear wastes. Sources, nature, handling and disposal of biologic waste. Pollution prevention, recycling and resource conservation. Prerequisites: Env Sci 110R; Geog 150, Geol 220 or instructor's permission. Offered: On demand.

**336 Principles Of Soil Science (3).** Study of genesis, evolution, distribution and classification of soils. Analysis of soil-forming materials and processes. Three hours lecture, discussion and laboratory a week. Prerequisites: Env Sci 110R; Geol 220 required; Offered: On demand Restrictions: college chemistry recommended.

**340 Regional Geography Of The United States And Canada (3).** A systematic study of the physical and human geography of the United States and Canada. Emphasis is placed on the physical setting and the influence of the people on the land. Contemporary issues such as public vs. private land, water resources and energy resource distribution are emphasized. Offered: On demand.

**341 Regional Geography Of South America (3).** A study of the physical and human geography of South America, with an emphasis on cultural processes and the historical record. Contemporary issues such as economic development, trade, urbanization, and geopolitical conflicts are discussed. Offered: On demand

**342 Regional Geography Of Mexico, Central America And The Caribbean (3).** A study of the physical and human geography of Middle America, with an emphasis on cultural processes and the historical record. Contemporary issues such as economic development, trade urbanization, and geopolitical conflicts are discussed. Offered: On demand

**350 Regional Geography Of Europe (3).** A study of human activities in relation to the physical environment in Europe. Emphasis is placed on nation states and their economic, social and political geography within their physical and historical context. Offered: On demand

**351 Regional Geography Of The Middle East (3).** A study of human imprint upon the land through settlement patterns, institutions of land organization, and types of economy. Strategies for the economic development of various regions in the Middle East are discussed. Offered: On demand

**352 Regional Geography Of Southeast Asia (3).** A study of human imprint on the land through settlement patterns, institutions of land organization, and types of economy. Strategies for the economic development of various regions in Southeast Asia are discussed. Offered: On demand

**355 Regional Geography Of Africa (3).** A study of human imprint on the land through settlement patterns, institutions of land organization, and types of economy. Strategies for the economic development of various regions in Africa are discussed. Offered: On demand

**360 Principles Of Biogeography (3).** Distribution of plants and animals on earth, emphasizing variations in the physical environment over space and time, the concept of the biological niche, the phenomena of speciation and extinction, island biogeography, and recent theoretical developments relating to species disjunctions (vicariance biogeography). Prerequisite: Env Sci 110R. Offered: On demand.

**398 Field Trip (1).** Three-day field trip in March or April (at student's expense) for department majors. An opportunity to observe and study physical and cultural features and collect materials. Brief descriptive report of trip required. Prerequisite: 6-9 hours of upper level geography. Yearly.

**401 Advanced Geographic Information Science (3).** This course is designed for the students knowledgeable in the fundamentals of geographic information systems, who wish to gain expertise in advanced topics and applications in geographic information systems, remote sensing, and related environmental informatics. Classes are organized to encourage active learning. Students are encouraged and guided to develop their research projects by integrating related techniques of geographic information science. Prerequisite: Geog 203 Offered: On demand

**402 Environmental Remote Sensing And Digital Image Analysis (3).** This course will provide students with innovative techniques for landscape-level

environmental analysis, geographic and geological studies, earth science research, and environmental resources management using remotely sensed data including satellite images. Students will be taught basic remote sensing concepts and technical skills, including energy radiative transfer processes in remote sensing, sensors and resolutions, computer-based image processing and classification, and remote sensing/GIS integration. Prerequisite: Geog 203 (formerly Geog 401) or permission of instructor. Offered: On Demand

**403 History And Philosophy Of Geography (3).** A survey of geographic thought since antiquity. The substance of geography will be sought primarily in scholarly treatises, formal analytical systems and cartography, but the course also addresses geographical principles emerging from the history of such matters as government, law, economy, religion, and material culture. Readings, lectures, discussions, research, writing. Also offered as Geography 5503. Offered: On demand

**404 Biogeography And Landscape Ecology (3).** Principles and applications of biogeography and landscape ecology, emphasizing distribution of major ecosystems and related plants and animal species on earth, biodiversity, landscape patterns and processes, and physical, biological, and human interactions. The course explores ecosystem and landscape analyses using advanced GIS, remote sensing, and spatial modeling methods for real problem solving in environmental and biological research, ecosystem conservation, and urban planning and studies. Prerequisites: Geog 203, Geog 402/5502 or permission of instructor. Offered: On demand

**406 Global Environmental Change (3).** This course will examine the current rates of global environmental change and potential causes in the context of Earth's natural climate variability. The course will follow a seminar format. Students will read and discuss published articles on current and emerging theories of forcing mechanisms in the Earth's systems.

**410 Landscape, Language, Literature, And Law (3).** An examination of the geographic underpinnings and implications of languages, literatures, and jurisprudence. The course explores languages' historic rootedness in the interactions between human beings and their surroundings; the varying geographic expressiveness and discrimination of languages; the effect and significance of literary evocations of landscapes; and the cultural and environmental geographic content of the language of law. Readings, lectures, discussions, writing. Prerequisite: Permission of the instructor. Offered: On demand. Also offered as Geog 5510.

**415 History And Philosophy Of Cartography (3).** An examination of the techniques, assumptions, psychology, and cultural implications of mapping from the Stone Age to the age of satellites and the computerized Geographic Information System. Readings, lectures, discussions, writing. Offered: On demand. Also offered as Geography 5515.

**417 Special Topics (1-3).** Individual research and study of a selected topic in geography, meteorology or earth science. Prerequisites: Approval of instructor. On demand.

**426 Paleocology: Microfossils And Climate Change (3).** Paleocology will focus on questions addressing past environments and past climates based on the ecology of microfossils. Micro-organisms are very sensitive to a wide variety of environmental conditions including temperature, precipitation, hydrology, water chemistry, salinity, habitat, and pollution. The fossil remains of these organisms are used as proxy indicators for reconstructing past environmental conditions, climate change, vegetation dynamics, and human impacts. Students will have the opportunity to process microfossils and make interpretations based on analysis data. Prerequisite: Permission of Instructor Offered: Every other Fall semester

**430 Energy Resources (3).** Theories regarding the origins of energy resources with emphasis on hydrocarbon fuels. Practical problems of exploration, production, storage and conservation of energy resources. Discussion of estimated national and worldwide energy supplies, reserves and alternate sources in relation to environmental concerns. Three hours lecture, occasional field trips. Prerequisite(s): Env Sci 110R; Geol 220 recommended. Offered: On demand.

**435 Georchaology (3).** This course examines geomorphological and archaeological methods used in reconstructing sites, settlement patterns, and paleoenvironments. Explores dating methods, soils, and stratigraphy as tools for studying landscape evolution and human occupation. Prerequisites: Geog 314 or Geol 314, or permission of instructor. Offered: On demand

**437 Population Geography (3).** Analysis of areal patterns of population distribution, composition, migrations and growth as well as their causes and consequences upon the cultural landscape. The relationships between population regions and resource or socio-economic regions are emphasized. Offered: On demand.

**442 Quaternary Environments (3).** This course reviews earth climatic history and focuses on major mechanisms for global and regional climate change. Methods of paleoclimatic reconstruction are examined, including analysis of proxy data and climate modeling. Application of these methods toward prediction of future climate change is also explored. Also offered as Geog 5542. Prerequisite(s): Geog 314 or Geol 314, and Geog 315, or permission of instructor. Offered: On demand.

**444 Geo-Computation For Earth And Environmental Sciences (3).** This course will focus on advanced computation methods for the analysis and modeling of complex and often non-deterministic processes in the spatial and environmental sciences. Students will be introduced to innovative techniques for analyzing large datasets with attribute spaces of very high dimensionality, including hyper-spectral remote sensing data. Prerequisite: Geog 402 or permission of instructor Offered: On demand

**448 Satellite Climatology (3).** Use of satellite observations to study the climate system. Discussions consider the development of satellite climatology, sensors, platforms and methodologies used to estimate climate variables from radiance measurements. Aspects of climate that are emphasized include cloud climatologies, cloud systems, atmospheric moisture, radiation budget, and land-surface conditions. Prerequisites: Geog 215 or Geog 319, or permission of instructor Offered: On demand

**450 Gis Fundamentals For Research Applications (3).** This course will address the needs of upper level undergraduate and graduate students who desire to learn and apply fundamental Geographic Information Systems concepts and techniques for their research projects. This course will draw on the content of the Introductory GIS course offered by the department but will also be flexible such that the individual needs or interest of students can be met through guided reading and/or tailored laboratory sessions. The Department of Geosciences GIS computer laboratory, with a variety of GIS and Remote Sensing software, will be available for this course. Prerequisite: Permission by instructor Offered: Winter Restrictions: Only for upper level undergraduate and graduate students

**460 Transportation Geography (3).** Relation between transportation and spatial organization, selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to specific problem areas including commuting. Seminar with discussions of briefs and term paper. Offered: On demand

**489 Tutoring In Geography (1-3).** Geography majors in their senior year may enroll for 1-3 hours tutoring for credit. This will entail working as a tutor, under the direction of the faculty, to students in the 100 to 200-level courses in the department who either have inadequate background preparation in environment studies and geography or are identified by the instructor as needing tutorial help. Tutoring will be on a credit/non-credit basis. Prerequisite: Permission of instructor Offered: On demand

**496 Geography Internship (1-6).** Students obtain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor. Students should have junior standing or higher, and the instructor's permission. Prerequisite: Permission of the instructor Offered: Summer, Fall, or Winter as available

**499WI Geography Seminar (3).** Students critique geographic research and prepare a paper and an oral presentation on an approved topic. Prerequisite: Senior standing and successful completion of the WEPT Offered: Winter

## Geology Courses

**120 Energy Science (3).** An introductory foundation course on energy in all its guises, the physical laws and factors which control it and the availability of energy for human use. Includes consideration of resources, reserves, conversion efficiencies, conservation, and other relevant factors. Conventional sources and nonconventional alternatives such as solar, wind, water, geothermal, biomass and fusion will be addressed. Lecture and discussions. No prerequisites. Offered: On demand

**220 General Geology (3).** Origin and composition of the primary earth materials; agents of erosion, transportation, sedimentation and metamorphism; modes of occurrence of common minerals and analysis of the common crustal structures. Field trips. Three hours lecture and discussion. Semester offered: Fall and Winter

**220L General Geology Laboratory (2).** Laboratory and field investigations of principles of the geology designed to complement the topics covered in Geology 202 and 220 through the use of inquiry-based investigations in the laboratory and field. Prerequisite: Co-requisite or Prerequisite Geology 202 or Geology 220. Semester offered: Fall and Winter

**230 Historical Geology (4).** An interpretation of the biological and physical history of the earth. Three hours lecture, discussion and two hours laboratory a week. Field trips. Prerequisites: Geol 220 or permission of instructor Offered: On demand

**250 Field Methods In Earth And Environmental Science (3).** This course will provide students with an introductory, inquiry-based learning experience that focuses on the application of field methods for understanding surface and subsurface earth processes and environmental issues. Students will collect field data at off-campus sites, conduct periodic monitoring, and analyze samples using departmental instrumentation. Students will work on collaborative projects and will present their results. Class will meet once a week for three hours. Prerequisite: GEOL 101 and GEOL 101L or ENV5 111 and ENV5 111L. Prerequisites: GEOL 220 and Geol 220L or Env Sci 110R and Env Sci 110L Offered: Fall



**251 Field Methods in Earth and Environmental Science: Off-Campus (3).**

This course will provide students with an introductory, inquiry-based learning experience that focuses on the application of field methods for understanding surface and subsurface earth processes and environmental issues. Students will collect field data at off-campus sites, conduct periodic monitoring, and analyze samples using departmental instrumentation. Students will work on collaborative projects and will present their results. Class will meet at an off campus location during break (added cost) plus have four on campus meetings. Prerequisites: GEOL 220 and 220L or Env Sci 110R and 110L

**302 Environmental Geology (3).** An introduction to the role and scope of geological processes in the light of contemporary urban society. Lecture and discussion periods include topics such as air and water pollution, earth movements, waste disposal, mineral, energy and water resources, construction engineering, and effects caused by human activities. Three hours lecture, discussion per week. Semester offered: Fall and Winter

**312 Mineralogy (4).** Introduction to crystallography, mineral chemistry and the systematic classification and identification of minerals. Prerequisites: Physical Geology and Chemistry 212R. Three hour lecture and discussion with two hours laboratory a week. Fall.

**313 Evolution And The Geologic Record (4).** An introduction to the history of life by studying the geologic record. Students will examine major features of the fossil record including: invertebrates, vertebrates, and plants. Students explore what the fossil record tells us about geologic time, evolution, past environments and distributions of organisms. Three hours of lecture and two hours of laboratory a week. The course will include field trips to collect and interpret fossils and paleoenvironments. Prerequisites: None Offered: Winter

**314 Principles Of Geomorphology (4).** Explores the processes that shape the earth's surface. Focuses on the development and description of fluvial, glacial, eolian, and coastal landforms. Studies the influence of tectonic and climatic factors. Three hours lecture and two hours lab per week. Field trip. Prerequisite(s): Env Sci 110R; or Geol 220; Offered: On demand.

**325 Sedimentology/Stratigraphy (4).** Study of sedimentary rocks with special emphasis given to hand specimen identification based on mineral composition and textural features. Characteristics of sediments, transportation and environment of sediment deposition. Principles of stratigraphy, facies analysis and interpretation. Measurement and description of stratified rocks. Three hours lecture and two hours lab per week. Field trips. Prerequisite: Geol 220 Offered: Fall

**326CZ Cc: Archaeology Of Ancient Disasters (3).** Remarkable human achievements are revealed by archaeological research, but the human past was frequently shaped as well by disasters of natural and human origin. Drawing on case studies that include data from the geosciences, archaeological excavations, and historical sources, this class examines how earth processes, the biosphere, and human cultural behavior were all sources of catastrophe. We begin with the geological context of disaster, including earthquakes, volcanic eruptions, climate change, and soil depletion. Next, we examine how ancient societies responded to disease, an ever present threat from the biological environment. Finally, we look at how ancient human groups were changed by stresses of cultural origin, including overpopulation, depletion of vital resources, and warfare. The study of ancient disasters not only gives us a wider understanding of human history, it may offer lessons for coping with future catastrophes. Also cross listed as Classics 300CZ. Offered: Winter Semester

**335 Introduction To Waste Management (3).** Overview of issues in waste management. Nature and classification of waste. Municipal solid waste: disposal methods, design, construction and maintenance of sanitary landfills. Nature and sources of hazardous waste, storage, transportation, treatment and disposal of hazardous waste. Types and sources of nuclear waste; disposal of high level and low level nuclear wastes. Sources, nature, handling and disposal of biologic waste. Pollution prevention, recycling and resource conservation. Prerequisites: Env Sci 110R, Geog 150, Geol 220 or instructor's permission. Offered: On demand

**342 Igneous And Metamorphic Petrology (4).** Introduction to the principles governing the classification, occurrence and origins of igneous and metamorphic rocks. Prerequisite: Geology 312. Three hours lecture and discussion with two hours laboratory a week. Winter.

**342R Electrical Methods In Near Surface Geophysics (3).** Fundamental theory and near-surface applications of the 'electrical' geophysical methods; (1) electrical resistivity, (2) electromagnetics, (3) ground penetrating radar, and (4) induced polarization. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties and archaeological protection. Course will include a field component illustrating application of selected technique to a local environmental problem. Prerequisites: Permission of Instructor Offered: On demand

**350 Earth Structures And Tectonics (4).** This course is designed to teach students the basic techniques and approaches for problem solving in structural geology. The course will cover the fundamentals of crustal deformation and discuss joints, faulted and folded rocks in their plate tectonic context. Two hours of lectures and three hours of laboratory a week. Course will include

local field trips and one weekend field trip. Prerequisite: Geology 101 Physics 210 or 240. Offered: Winter

**370R Hydrogeology (3).** Geology and hydrologic factors controlling the occurrence, movement, quality, recovery and development of water supply and distribution. Problems relating to urbanization of flood plains. Prerequisites: Permission of instructor

**398 Geology Midcontinent Field Trip (1).** A study of a selected area of the midcontinent U.S. with emphasis on locations to be visited during a three-day field trip (at the student's expense). An opportunity to observe and study physical features and collect materials. Several scheduled one-hour meetings in addition to field trip. Lectures, discussion and reading assignments provide a background to place the area covered by the field trip into the overall geologic framework of the Midcontinent U.S. Descriptive report or written examination. Limited enrollment. Prerequisite: Junior or senior level. Fall.

**404 Geology Of Fluids (3).** Basic factors controlling the occurrence and flow of ground water, movement of aqueous and non-aqueous phase contaminants, aspects of monitoring well design and sampling, water quality data interpretation and presentation techniques, conceptual hydrogeologic and contaminant transport models. Three hours lecture, discussion and laboratory a week. Prerequisites: Geology 220, Geology 312 Offered: On demand Restrictions 325 recommended.

**411 Mineral Deposits (3).** Distribution, origin and environmental implications of extractable resources including non-metallic deposits, ores, and selected energy resources. Prerequisite: Instructor's permission Offered: On Demand

**412 Geology And Hazardous Waste Management (3).** Nature sources and characterization of hazardous waste; collection, transportation and disposal of hazardous wastes. Fundamentals of toxicology and risk assessment. Application of geologic principles and methods in the assessments and remediation of abandoned hazardous waste sites and contaminated aquifers. Review of selected case histories. Experts from government and private organizations will be invited to deliver guest lectures. An out-of-town field trip to a hazardous waste site is required. Prerequisites: GEOL 325, 342, and 350 or permission of the instructor.

**417 Special Topics (1-3).** Individual research and study of a selected topic in geology or earth science. Prerequisites: Approval of instructor and departmental sanction. On demand.

**417A Special Topics: Common Rocks, Minerals & Fossils Of The K C Area (1-3).**

**417C Special Topics (1-3).**

**425 Engineering Geology (3).** Review of engineering properties of rock and soils. Evaluation of geologic materials for civil engineering construction projects. Techniques of engineering geologic investigations; special problems in urban areas. Data evaluation, analyses, and preparation of engineering geologic reports. Application of geologic factors in design and construction of dams, tunnels, power plants, highways and waste disposal facilities. Review of engineering geologic case histories. A field trip is required. Prerequisite: Geology 325, 342, and 350, and permission of instructor. On demand.

**434 Hazardous Waste Operations Management (2).** Overview of federal regulations dealing with hazardous waste management, toxicology, hazard communication, site management, air monitoring, operating procedures, and health and safety. The course includes hands-on training on spill control, equipment use and emergency response. Practical training involves physical stress and participants must be in good physical health. This course satisfies OSHA's 40 hour training requirement for hazardous waste personnel. Prerequisite: Permission of instructor Offered: On demand

**435 Hazardous Waste Operation Management (2).** Review of federal regulations governing hazardous waste management, operations procedures, and health and safety issues. Hands-on training on spill control, equipment use, and emergency response will be included. The course satisfies OSHA's 40-hour training requirement for hazardous waste personnel. Practical training involves physical stress and participants must be in good health. Prerequisites: Geol 302, Geol/Geog 335, Geol 412 or permission of instructor Restrictions: Must be in good health to withstand physical stress during training Offered: Winter

**441 Environmental Geophysics (3).** Fundamental theory and near-surface applications of the geophysical methods; (1) seismic refraction, (2) seismic reflection, (3) gravity, and (4) magnetics. Emphasis will be placed on the use of these methods in environmental and engineering investigations, addressing such issues as water resources, contaminant transport, geotechnical properties and archaeological protection. Course will include a field component illustrating application of selected techniques to local environmental problem. Prerequisites: Permission of instructor Offered: On demand

**442R Optical Crystallography (3).** Theory and practical application of polarized light microscopy in the identification and characterization of crystalline and non-crystalline materials. Special emphasis is given to use of refractive index oils and thin sections. Two hours of lecture and discussion, one 2-hour lab per week. Prerequisite: Geol 312, Mineralogy or consent of instructor Offered: Winter bi-annually

**451 Geology's Role In Land Use Planning (3).** Examination of principles and techniques of geology as related to land use planning. Lecture and discussion periods devoted to topics such as physical features of soils in an urban setting, geophysical surveying, photo interpretation, engineering geology, mineral and water resources, and multiple-tier planning. Lecture, discussion and laboratory. Prerequisite: Geology 220 or Env Sci 110R Offered: On demand.

**460 Introduction To Geochemistry (3).** Basic principles governing the origin, distribution and migration of the elements and the geochemical cycles operating in the earth's atmosphere, hydrosphere and lithosphere. Prerequisite: Geology 312, Chemistry 212. On demand.

**471 Tectonics (3).** A detailed inquiry into plate tectonics and the geophysical and geological data that define the motion of lithospheric plates. Global examples of divergent, convergent, and transform plate boundaries will be studied through lectures, discussions, problem sets, and term papers. Prerequisite: Geology 325 and 350. Offered: On demand.

**472 Earthquake Geology (3).** A detailed inquiry into the study of present and past earthquakes as they are preserved in the seismological, geophysical, and geologic record. Global examples of earthquakes will be studied through lectures, discussions, problem sets, term papers, field trips and field projects.

**490 Geology Field Camp (6).** Study and practical involvement in the methods of geological mapping. The six-week course is conducted during the summer, partially in a field camp away from the Kansas City area. Students pay their own travel expenses to and from the field. Participation in the course involves individual mapping in the field area and field reports. Prerequisite: Permission of instructor. Summer.

**496 Geology Internship (1-6).** Students gain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor. Students should have junior standing or higher, or the instructor's permission. Prerequisites: Permission of Instructor. Offered: Summer, Fall or Winter as available

**498 Undergraduate Field Research (1-5).** The student will collaborate with fellow students and instructors in collection of original field geologic data at a location remote from campus. Field research will be carried out during semester intersessions or summer semesters. Prerequisite: Permission of instructor Semester offered: On demand

**499WI Geology Seminar (3).** Students participate in discussions; present formal talks; and prepare written papers on selected topics. Prerequisite: Senior standing and successful completion of the WEPT Offered: Winter

## German Courses

**110 Elementary German I (5).** The goals of this course are an ability to speak and to understand simple (spoken) German as well as to read and write simple prose.

**111 Introduction To Business German I (5).** The goals of this course are the development of essential language skills in order to communicate effectively in basic situations.

**120 Elementary German II (5).** Continuation of German 110. Prerequisite(s): German 110 or equivalent.

**121 Introduction To Business German II (5).** German 121 (5 Credits): Continuation of German III. Every Semester. Prerequisites: German 110 or 111 or equivalent. Offered: Winter.

**211 Second-Year German I (3).** Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisite: German 120. Fall.

**221 Second-Year German II (3).** Continuation of German 211. Every winter.

**250 Commercial German (3).** Business practices and correspondence in the German language; special vocabulary of business, trade, banking and administration. Refinement of grammatical and stylistic skills. Subjects treated include price inquiries, quotations, offers, orders, complaints, administrative, banking and diplomatic correspondence. Prerequisite: German 221 or equivalent.

**280 Special Intermediate German Topics I (2-4).** Instruction of German on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate German Topics II (2-4).** Continuation of German 280. May not be repeated for credit. As needed.

**301 Introduction To Literary Studies (3).** An introduction to the study of the different genres of German literature and techniques of criticism. Readings include representative works of major authors from various periods. Strongly recommended for all majors. To be taken before or concurrently with other literature courses. Even numbered years, fall.

**305 Current Events In Germany (3).** This course focuses on contemporary issues in Germany such as politics, the economy, foreign affairs, culture, science, education, etc. Various television news programs, news magazines, and newspapers will be the primary sources of information in this course. Prerequisites: 221 or equivalent.

**306 Aspects Of Contemporary German Culture (Conducted In German) (3).** The goal of the course is to familiarize the student with various aspects of contemporary culture in the German-speaking countries (Germany, Switzerland, Austria). The class will be structured around lectures, guest lectures, audiovisual presentations and discussions, emphasizing crosscultural comparisons.

**307 From The Middle Ages To The Baroque (3).** The goal of this course is to introduce students to the history of German literature from the Middle Ages to the Baroque, emphasizing the historical and social context and the development of various genres. Prerequisite: German 221 or equivalent Offered: On Demand Restrictions: Course is offered in German.

**308 From The Enlightenment Through The 19Th Century (3).** The goal of this course is to introduce students to the history of German literature from the Enlightenment through the 19th century, emphasizing the historical and social context and the development of various genres. Prerequisite: German 221 or equivalent Offered: On demand Restriction: Course is offered in German

**310 Classical Period Of German Literature (3).** Readings in the late 18th and 19th centuries with emphasis on Goethe and Schiller.

**315 Intermediate Conversation And Composition I (3).** Practice in speaking and writing German; emphasis on idiomatic usage. Required for major. Prerequisite: German 221 or equivalent. Every fall.

**325 Intermediate Conversation And Composition II (3).** Continuation of German 315. Required for major. Prerequisite: German 315. Every winter.

**340 Society And Literature In 20Th-Century Germany (3).** Conducted in English with English translations. Literary currents and figures in 20th-century Germany against their social and political background, from the turn of the century to the postwar period. Reading and discussion of major works by such authors as Thomas Mann, Hesse, Kafka, Rilke, Brecht, Boll, Grass, Hochhuth and Weiss. Open to students of all disciplines. (Not for major credit in German).

**341 Survey Of German Film 1920-1980 (3).** Introduces students to the important contributions of German films to the development of movies as a unique literary art form. The class will cover important terms and concepts in film theory, the specifically German context of film, and important themes and periods in German film history. Taught in English with subtitled films.

**342 Contemporary German Film 1980- (3).** This course will introduce students to the important role film has played in the public discourse about German society immediately prior to reunification in the 1980's and during the turbulent social adjustments in unified Germany after 1990. Lectures and readings in the first week will cover important terms and concepts in film theory as well as provide background for the specific German context of film history. The class will treat film in the 1980's in terms of continuations of and liberations from the New German Cinema of the 1970's in West Germany, and in the context of state censorship and sponsorship of film in East Germany. We will approach movies from the 1990s and 2000's by accessing their depiction of historical and contemporary Germany through the lens of reunification, and we will examine issues of German identity especially as contextualized by reunification and multiculturalism. The course will be taught in English with subtitled films. Prerequisite: Ger 315 for German majors/minors

**345 The Antifascist Tradition In Germany (3).** This course examines the political and cultural roots of German fascism. It then discusses varieties of resistance to fascism as exemplified in works of fiction, drama, poetry and auto-biography, as well as in music and the visual arts.

**400 Rainer Maria Rilke (3).** The course examines the works of the Austrian poet Rainer Maria Rilke, emphasizing close readings of texts in their historical, cultural, biographical and psychological contexts. It examines Rilke both as a representative of his epoch, and as the poet who revolutionized German poetic language.

**401 Bertolt Brecht (3).** Covers major works by Brecht in their social and historical context. May focus on a specific genre or survey parts or all of Brecht's career. Discussions and readings in German. Prerequisite: Ger 315 or instructor's permission. Offered: On Demand

**411 Romanticism (3).** Main currents and authors from the Romantic school, 1780-1820.

**412 The German Novelle (3).** An examination of representative novellen of the 19th and 20th centuries. Special emphasis on the study of form.

**414 German Lyric Poetry (3).** Lyric poetry from its beginnings to the present. Emphasis on 19th and 20th centuries.

**415 Advanced Conversation And Composition I (3).** Practice in speaking and writing German, with attention to the elements of style. Continued in

German 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated with the consent of the instructor and the department chairman. No more than six hours credit may be applied towards a degree. Prerequisite: German 325.

**421 19Th-Century Drama (3).** Kleist through Hauptmann.

**422 Contemporary Drama (3).** This course will provide students with a survey of the most important dramatic movements of the 20th century. It will proceed chronologically through Expressionism, the Brechtian theatre of alienation, documentary theater and post-modernist theater. Prerequisite: German 221

**425 Advanced Conversation And Composition II (3).** Continuation of German 415. See German 415. Required for teacher certification in German. Prerequisite: German 415.

**426 20Th-Century German Literature (3).** Selected readings from Neo-Romanticism to the present. On demand.

**453 Women's Voices In Germany And Austria (3).** The course focuses on the role of women in German and Austrian society from the Roman era to the present, primarily through the examination of literary texts by women. Prerequisite: German 221

**480 Special Topics (1-3).** Each time this course is offered a particular author, genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes. Permission of the department chairman is required. On demand.

**490 Special Readings (1-3).** Intensive readings in a field or literary figure to be selected by the student in consultation with the instructor. Available by permission only to advanced students of German; available only when student cannot take regularly scheduled courses. Prerequisite: 3.0 GPA. On demand.

**499 Senior Seminar (Capstone) (3).** Required for major. Covers seminal works of German literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music. To be taken during final Winter Semester of residence. Prerequisite: 21 hours beyond first year. Offered: Winter Semester.

## Greek Courses

**110 Elementary Greek I (5).** The goal of this course is an ability to read classical Greek. The student will be introduced to the fundamentals of grammar and the basic vocabulary of the language and will do exercises in the reading and writing of sentences. Continuous passages of Greek will be presented by the end of the semester. Every other fall semester. Sophomore Status or Consent of Instructor Offered: Every Other Fall Semester

**120 Elementary Greek II (5).** A continuation of the study of the grammar and vocabulary of classical Greek, with an increasing emphasis on developing skills in translation. By the middle of the semester students will be introduced to selections from Plato, Herodotus or Homer. Prerequisite(s) Greek or equivalent. Semester Offered: Every other winter semester.

**280 Special Intermediate Greek Topics I (2-4).** Instruction of Greek on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate Greek Topics II (2-4).** Continuation of Greek 280. May not be repeated for credit. As needed.

**490 Special Readings In Greek (1-3).** Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Greek students. On demand.

## Guitar Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Guitar I (2-4).**

**102 Freshman Guitar II (2-4).**

**201 Sophomore Guitar I (2-4).**

**202 Sophomore Guitar II (2-4).**

**301 Junior Guitar I (2-4).**

**301J Junior Guitar I (Jazz) (2).**

**302 Junior Guitar II (2-4).**

**302J Junior Guitar II (Jazz) (2).**

**401 Senior Guitar I (2-4).**

**401J Senior Guitar I (Jazz) (2).**

**402 Senior Guitar II (2-4).**

**402J Senior Guitar II (Jazz) (2).**

## Harp Courses

**101 Freshman Harp I (1-4).**

**201 Sophomore Harp I (1-4).**

**202 Sophomore Harp II (1-4).**

**301 Junior Harp I (1-4).**

**302 Junior Harp II (1-4).**

**401 Senior Harp I (1-4).**

**402 Senior Harp II (1-4).**

## Harpichord Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**101 Freshman Harpsichord I (2-4).**

**102 Freshman Harpsichord II (2-4).**

**201 Sophomore Harpsichord I (2-4).**

**202 Sophomore Harpsichord II (2-4).**

**301 Junior Harpsichord I (2-4).**

**302 Junior Harpsichord II (2-4).**

**401 Senior Harpsichord I (2-4).**

**402 Senior Harpsichord II (2-4).**

## Health Administration Courses

**465 Contemporary Issues In Urban Public Health (3).** This course examines current issues in urban public health and the policies and programs designed to address those issues. Issues of interest include treatment of drug addiction, the special health problems of the very young and very old, problems of urban public hospitals, policies towards AIDs treatments, as well as other emerging issues. Using local health officials as guest speakers, the course will examine how these issues affect the Kansas City area in particular.

## Hebrew Courses

**110 Elementary Hebrew I (5).** Fundamentals of the language, essentials of conversation, grammar, practical vocabulary, useful phrases, and the ability to understand, read, write and speak simple Hebrew. Every Fall.

**120 Elementary Hebrew II (5).** Continuation of Hebrew 110. Every winter. Prerequisite(s): Hebrew 110 or equivalent.

**211 Second-Year Hebrew I (3).** Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisite: Hebrew 120 Offered: Fall

**221 Second-Year Hebrew II (3).** Continuation of Hebrew 211. Prerequisite: Hebrew 211. Every winter.

**290 Special Intermediate Hebrew Topics II (2-4).** Continuation of Hebrew 280. May not be repeated for credit. As needed.

**380 Special Topics (1-3).** Treatment of a particular genre or area of literature in Hebrew normally not offered through regular courses. May be repeated for credit when the topic changes. Prerequisite: Permission of the instructor. On demand.

**490 Special Readings (1-3).** Intensive study of a subject selected by the student in consultation with the instructor. Available by permission only. On demand.

## History Courses

**101 American History To 1877 (3).** This course covers the evolution of American civilization from its colonial beginnings to Reconstruction. It is not a prerequisite for 102. Fall, winter, summer.

**102 American History Since 1877 (3).** This covers American history from the end of Reconstruction to the present. History 101 is not a prerequisite for this course. Fall, winter, summer.

**201 Western Civilization To 1600 (3).** This course surveys the political, social and cultural history of Europe from ancient times to 1600. Beginning with a brief description of the riverine civilizations of the ancient Near East, the course then examines the political and cultural evolution of classical Greco-Roman civilization, the medieval world, the rise of the national state, and the essential characteristics of the eras of the Renaissance and Reformation. Fall, Summer, Winter.

**202 Western Civilization Since 1600 (3).** This course surveys the political, economic, social, intellectual, and cultural history of Europe from about 1600 to the present, through these major developments in those centuries: the origins of the modern sovereign state (absolutist and constitutional), the English revolutions; the European Enlightenment, the French Revolution, and Napoleonic Europe; Romanticism and Scientism in culture and thought, the Industrial Revolution and urban society, and nationalism and imperialism; the two world wars, the Russian Revolution, dictators and totalitarian states, and the current postwar world and culture. Fall, Summer, Winter.

**206 World History To 1600 (3).** This course is a comparative history of the civilizations of the world from prehistory to the seventeenth century. From a global perspective, this course explores themes relevant to social, political, and cultural history, such as science and technology, women and social classes, religion, politics, and education. Images of art and examples of primary sources enrich the lectures and readings.

**208 World Civilization Since 1600 (3).** This course surveys the social, economic, political and institutional history of the world from the 17th century to the present. It is designed to foster deeper understanding of the continuity between past and present and of the interdependence among nations in contemporary times.

**250 Introduction To American Studies (3).** An introduction to the American Experience through the study of selected themes and issues that stress both continuity and change in America. Topics include community, family, ethnic groups, racial conflict, science and religion, the arts, sports, mass media, technological innovation and immigration and migration. The interdisciplinary nature of American Culture will be stressed. Prerequisite: None. Offered: Alternate Years.

**300B Special Studies In History (1-3).**

**300C Special Studies (1-3).**

**300CM Cluster Course: Mexico, Central America And The Human Condition (3).** Faculty from at least two different departments may determine the topic and syllabus, subject to approval of the Director of Integrated Studies and the program's advisory committee in addition to approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A.

**300D Special Studies (1-3).**

**300K Special Studies History (1-3).**

**300R Special Studies (1-3).**

**300RA Special Studies (1-3).**

**300RB Special Studies (1-3).**

**300RH Special Studies (1-3).**

**301WI Historiography And Method (3).** This basic course is required of all history majors at the beginning of the junior year. Content includes: 1) what history is; 2) its value and usefulness; 3) the diversity of our fields, approaches, and methods; and 4) the techniques of preparing and writing history papers. Texts and reading are approved by the Department. (i.e.: Turabian for style). Although the emphasis is general instead of particular, the instructor will be assisted by other historians representing their main special interest areas. Prerequisite: Successful completion of the WEPT (effective FS93). Offered: Fall and winter.

**302 America,1000-1763:The Formative Era (3).** Early American history encompasses the formative era of many institutions and attitudes which still

persist in technetronic, post-modern America. A study of how these patterns and policies emerged will enlighten us as to our current ways society seeks to adapt to change. Semester offered: On demand

**303 America, 1763-1783: The Revolutionary Heritage (3).** The American Revolution created American history by creating a new nation. What the American Revolution was depends to a large extent upon what Americans think they are or ought to be. The goals of this course, therefore, are twofold: (1) to probe the nature, causes and consequences of the American Revolution; (2) to assess the intentions and behavior of both the Framers in 1763-1783 and of the inheritors of modern America. Also offered as History 503. Semester offered: On demand

**304 America, 1783-1828: The National Experience (3).** The two major threads of this course are the formation and implementation of the Constitution and the cultural adolescence of the new nation. Topics considered include the political bequest of the framers' generation, the growing pains of territorial expansion and industrialism, the paradoxical development of regionalism and nationalism. Also offered as History 504.

**305 America, 1828-1852: The Jacksonian Period (3).** An analysis of the political, social, economic, and intellectual factors in American society, 1828-1852. The period featured the presidency of Andrew Jackson, the shaping of a new democratic ideology, the culmination of manifest destiny, the quickening of the antislavery impulse, the Mexican War, the growing sectional split, and the Compromise of 1850. Also offered as History 505.

**306 America, 1850-1877: Civil War And Reconstruction (3).** A survey of the political, social and economic factors leading to the dissolution of the federal union is followed by a consideration of the major features and developments of the war period. This, in turn, leads to an analysis of the major factors and relationships involved in the "reconstruction" of the federal union. The course covers the years 1850 to 1877. Also offered as History 506.

**307 America 1877-1917: Development Of Industrial America (3).** This course deals with the reactions of different groups of Americans to the industrialization and urbanization of the United States from 1877 to 1917, using concepts associated with modernization upon the behavior of the business community, farmers, laborers, immigrants, professionals and major ethno-cultural groupings. Other contemporary proposals for the adjustment to industrialism are explained as well as the programs which each group eventually used to adjust to modern society. Also offered as History 507.

**308A America: 1914-1945: The Era Of The World Wars (3).** This course examines United States social, intellectual, economic, political and diplomatic history from the beginning of World War I to the end of World War II. Special emphasis is placed on the coexistence of realism and idealism in American foreign policy, the evolution of power shifts within the American federal system, and the causes and consequences of rapid urban growth and increased industrial sophistication. Students examine the material and social texture of life during the two world wars, the so-called "roaring 20s", and the Great Depression through contemporary art forms (especially novels) and historical monographs.

**308B America: 1945-Present: Our Times (3).** This course examines United States social, intellectual, economic, political, and diplomatic history from the end of World War II to the present. Given our focus on the recent past, special emphasis is placed upon the importance of the historical perspective to an understanding of contemporary affairs. Major themes include: America's rise to the world power, the development of the Keynesian welfare state, the concentration of corporate wealth and power, the persistence of poverty amidst plenty, and the changing status of American minority groups.

**310WI History Of Modern Computing (3).** This is a writing-intensive introduction to the history of modern computing. After an introduction to historical writing, the course surveys the history of electronic computing, covering both technological changes and their social and economic context. Student efforts then will be focused on individual research leading to the writing of a paper on a topic in this field selected with the approval of the instructor. Students will carry out a series of written assignments in order to learn how to do historical research and to improve one's reading, writing, and analytical skills. Prerequisite: WEPT Restrictions: Must have passed the WEPT Offered: WS2004

**353 Immigrants And Immigration In American History (3).** This course surveys the effects of immigration on the social, intellectual and economic development of the United States. As well, it treats the fate of immigrant groups. Attention is given to the forces affecting assimilation, ethnic identity, mobility and discrimination. In some semesters particular emphasis is placed on one immigrant group, one time period, or the immigrant groups of Kansas City. Also offered as History 553.

**354R Women In Modern America (3).** This course traces the part women have played in the processes of industrialization and urbanization. It looks at the general demographic, economic and social changes affecting women of all classes, as well as the role of middle-class women in the progressive, prohibition and suffrage movements. The course will also study the impact of

the two world wars and the Depression upon the roles of women. Also offered as History 554.

**355A Indians Of South America And The European Invasion (3).** Origins and Latin America. Consideration of the origins of Indian culture throughout the entire Western hemisphere is followed by an analysis of the great Native American civilizations of Mexico, Central America and the Andes; Indian reactions to the Spanish and Portuguese invaders; and the present situation of Latin American Indians. Also offered as History 555A.

**355BA Indians Of North America To 1789 (3).** The history of the native peoples of North America from their origins to the era of the American Revolution. Prerequisite: None. Offered: Fall.

**355BB Indians Of North America Since 1789 (3).** The history of the native people of North America (Indians and Inuit) and their interaction with the European invaders since 1789. This course is the sequel to History 355BA, Indians of North America to 1789. Prerequisite: None. Offered: Winter.

**356 Rise Of The City In The U.S. (3).** This course treats the background and major developments of the urbanization of the United States. Includes the American urban tradition, the scope of urbanization, colonial beginnings, urban rivalries, promotion, case studies of cities, the growth of urban services, the slum, problems of government, population trends, urban planning, and suburban growth. Consideration is also given to the methods and techniques of urban research and history of the development of this field. Also offered as History 556.

**356R Kansas City: History Of A Regional Metropolis (3).** This course uses Kansas City as an urban laboratory to help students better understand the dynamics of the urbanization process in America. It features lectures and discussions on such subjects as early settlement patterns, the battle for the first bridge over the Missouri River, the development of an economy based on agricultural pursuits, the City Beautiful Movement, the social fabric, the Pendergast Machine, and the impact of World War II and after. The course fits Kansas City into the larger framework of the American urban mosaic. Also offered as History 556R.

**357 The American West (3).** This course deals with the relationship of the American West to the social and economic development of the United States. Major emphasis is placed on the role of the trans-Mississippi West in the economic growth of the national economy. Related cultural and political events are evaluated in the terms of the many Western frontiers. Emphasis will be placed on the Turner thesis, the Indian heritage, frontier violence, and the cow town experience. Also offered as History 557.

**360R Constitutional History Of The United States (3).** The general question covered is: how does American society govern itself? Topics include the fusion of Anglo traditions and American environment, creation of the American republic under the Constitution of 1787, the struggle for sovereignty during the Marshall-Taney era, and the Supreme Court's utilization of the 14th Amendment to adapt the Constitution to modernity. Also offered as History 560R.

**361 American Foreign Relations (3).** Following a rapid survey of major principles and actions in American diplomatic affairs before 1900, this course analyzes developing principles, problems, methods and factors in American foreign relations since that date. Attention is given to the interrelationships of domestic factors and foreign relations with an attempt to discover principal influences that have shaped this area of American development. Also offered as History 561R.

**364R Nature, Culture And The Human Experience (3).** This course is an introduction to various interpretations of nature with a focus on American culture and society. We will consider ideas about nature from diverse perspectives including history, literature, philosophy and religion in order to understand how human perceptions and uses shape relations with the natural world. Specific themes include such diverse topics as the aesthetic tradition, environmental thought, and environmental justice.

**365A American Environmental History (3).** This course examines the changing relationships between human beings and the natural world through time. The main argument of this course will be that American History looks very different through an environmental lens. Nature is an important category of historical analysis—as well as a topic worthy of historical study itself—and this course will examine themes as diverse as Native American ecology to the modern environment crusade.

**366RR American Labor History (3).** This course examines the history of work and the working class in the U.S. from 1750 to the present. We will focus on the transformation of the workplace, the rise of the union movement, the nature of cultural and political organizations, workers' relationships with other social groups, and the role played by gender, race, and ethnicity in uniting or dividing the working class. Also offered as History 566RR.

**368 Girlhood And Boyhood In America (3).** This course—which brings a gendered perspective to the history of childhood and the study of youth—focuses on the changing construction of girlhood and boyhood from

precontact to the present. We will examine the variety of forces that have shaped the lives of children and adolescents and explore the active role they have played in shaping their lives and American culture. We will make sure of the scholarly literature on childhood and youth as well as examine such primary sources as childbearing manuals, laws, literature, cartoons, and toys as material culture. Semester offered: On demand

**369 Women And Work In Early America (3).** Drawing upon more than two decades of outstanding scholarship that places women and gender at the center of investigation and interpretation, this course focuses on the ways in which gender, race, region and class have shaped the historical experiences of women in north America. We will trace the lives of American women from precontact to 1865 through an examination of a wide variety of social, cultural, economic, and political forces and factors including work and leisure, family life, political activities and organizations, and education Semester offered: On demand

**370 Introduction To Material Culture (3).** This course will consider the ways in which material culture contributes to our understanding of history. Scholars have increasingly recognized the significance of “the things they left behind,” particularly as they provide insights to the lives of those who did not leave extensive written records. Students will consider all aspects of material culture, drawing largely on examples from American history: architecture, domestic utensils and furnishings, clothing, tools, and good agricultural practices. The courses will emphasize the process of handicraft technology as well as the product, and will consider the impact of modernization upon both process and product. Also offered as History 570.

**391 Archival Methods (3).** This combined discussion and research course will examine the research potential of primary-source materials in the custody of archival depositories and the methodology employed to utilize effectively these resources. An analysis of archival method, specifically in the areas of arrangement, description and preservation, will be emphasized during the discussion portion of the course. Most of the course will be devoted to independent research in various collections of the Regional Archives of the Kansas City Federal Records Center. The course will meet at such places as the Federal Records Center, 2306 Bannister Road, or the Truman Library for both the discussion and research segments. Also offered as History 591. Summer.

**392A Archival Internship (1-3).** Students work directly with professional archivists and other personnel at the Kansas City Federal Records Center, the Truman Library, Jackson County Historical Society, and similar facilities in the area. Emphasis will be given to areas of arrangement, description and preservation of archival materials. Each student must make individual arrangements through the department. Also offered as History 592. Prerequisites: None Offered: Fall, Winter, Summer Restriction: Approval of Department Chair

**392B Public History Internship (1-3).** Students work directly with public history and editorial personnel at the Kansas City Museum, the Kansas City Pitch Weekly, the Truman Library, and similar facilities in the area. Depending on the institutional affiliation, emphasis will be given to museum operations and displays, editing, fund-raising, historical research and writing. Each student must make individual arrangements through the department. Also offered as History 592B. Prerequisites: approval of the department chair.

**393 Museum Science (3).** This course is designed to acquaint students with specific careers in museums and historical agencies; to introduce students to the wide range of operating issues facing those working in the museum profession on a day-to-day basis; and to familiarize students with the organizations, reference works and resources available to develop the skills and training required for those who choose to make this their profession. Also offered as History 593. Offered: On demand.

**394 African American History Before 1877 (3).** This course is a survey of the African American experience from Pre-Columbian exploration through reconstruction. The course focuses on the trans-Atlantic slave trade, slavery in the colonies as well as resistance and abolition movements. Prerequisite: None.

**395 African American History Since 1877 (3).** This course is a survey of African Americans in the United States from 1877 to the present. The course explores the post-reconstruction era, civil rights and black nationalistic movements; the concepts of racism, desegregation/integration and separation. Contemporary issues facing a multiracial and pluralistic society are also addressed. Prerequisite: None.

**400 Special Studies (1-3).** Courses on subjects which are not a part of the regular department offering. The courses result from one or more of the following: (1) The expressed desire of students; (2) the broadened or refocused scholarship of a member of the history faculty; (3) the temporary presence of a scholar whose specialization is not reflected in the department's regular offerings; (4) the conclusion by the department that the course meets a community need; (5) the effort of the history faculty to provide an interdisciplinary approach to an era or topic. The course is experimental in the sense that it is a one-time offering with the potential of repetition or modification—depending upon student, faculty and community response. Also offered as History 500R.

**400B Special Studies (1-3).**

**400C Special Studies (1-3).**

**400CC Special Studies (3).**

**400CF Cluster Course: Courts And Culture In The High Middle Ages (3).**

This course offers an interdisciplinary approach to the study of the High Middle Ages. In addition to the regularly scheduled meetings of this self-contained history class, there will be common sessions with students and faculty of English 400CF to look in dept at four royal courts from the 11th, 12th, and 13th centuries. We will focus on the courts of William the Conqueror, Henry II and Eleanor of Aquitaine, Louis IX, and Frederick II Hohenstaufen. Semester offered: On demand

**400CI Cc:Culture,Kultur,Civilisation:Identity Formation In Middle**

**Class (3).** This cluster course will explore the dynamics of bourgeois class formation in Western Europe in the “long” 19th century (1750-1920) from historical, thematic, and theoretical perspectives. It will focus on how this class-based identity developed and functioned in the context of historical and cultural changes and how the bourgeoisie defined themselves vis a vis nobles, peasants, workers, “primitives” and criminals. Class assignments will include historical, literary, theatrical, anthropological, and cinema-graphic sources. Offered: WS 2001

**400CJ Special Studies (3).**

**400CL Special Studies (1-3).**

**400CP American Social Film: Silver Screen And The American**

**Dream (3).** This course will combine American social history and American film history. Using Hollywood entertainment films, the course will look at Hollywood as an indicator of social, political, and economic conditions in the U.S. from the early 1900s to the late 1950s. The main topics are war and the threat of war, poverty and affluence, racial tensions, censorship, and political zealotry. A paper is required, and a social history textbook, a film history textbook, a play by Arthur Miller and a collection of articles constitute core readings. This course is offered as a cluster with American Studies 300CD, Communications Studies 402CD and English 300CD.

**400CS Cluster Course:Clio&The Other Muses:Hist&Culture 5Th Cent Athens (3).**

**400CY Cluster Course: The Ancient World And The Cinema (3).** This course will explore the tradition of depicting the ancient Mediterranean world in film from the early silent era to the present. Topics to be covered include the ways that filmmakers respond to literacy and historical sources from the ancient world, interact with the artistic tradition of films about the ancient world, the relation of these films to other works by the same creative personnel (directors, actors, writers, producers, etc.), and the political and cultural contexts in which the films were released.

**400F Special Studies (1-3).**

**400G Special Studies (1-3).**

**400J Special Studies (1-3).**

**400K Special Studies (1-3).**

**400M Special Studies (1-3).**

**400SS Special Studies (1-3).**

**400T Special Studies (1-3).**

**400WI Special Studies (1-3).**

**401A Religion In America (3).** An in-depth examination of selected aspects of the history of religions in America from the colonial period to the present. Special emphasis will be given to methodological issues in the study of American religious history. Offered: On demand

**411A Medieval Civilization I (3).** This course covers the period between the decline of the Roman Empire in the West and the Investiture Controversy. Topics include the rise of Christianity and early church-state relationships; the barbarian invasions and the various Germanic kingdoms; the age of Charlemagne; monasticism and feudalism. There will also be special sessions on the civilizations of Islam and Byzantium. Also offered as History 511.

**411B Medieval Civilization II (3).** See History 400CF/500CF for course description. Also offered as History 512.

**412A Women And Family In Medieval And Early Modern Europe (3).**

This course explores the roles of women in the social, economic, political and cultural environments of medieval and early modern Europe. We examine the lives of women in all areas of life, from the ordinary to the extraordinary, in urban and rural environments, from the centers of religious and political power to the margins of society. Focus will be on the world of work for urban and peasant women and on the social and legal institutions of marriage, kinship and the family. The course makes extensive use of primary sources by and about women during this period. Offered: On demand

**412B The Black Death And Late Medieval Society (3).** This course examines all aspects of late medieval and early Renaissance society in Western Europe. The Black Death of 1348/1349 serves as the entry point into the historical study of the economy, demography, and culture during this transitional period. Offered: On demand

**413 Renaissance (3).** Beginning with a definition and exploration of the Renaissance as a period of gradual transition between the Middle Ages and the beginning of modern culture, this course concerns itself primarily with the rise and spread of Humanism; the revival of interest in antiquity; the growth of individualism; and the rise of secularism, as well as with the artistic achievements of the period. Also offered as History 513.

**414 Reformation (3).** Beginning with a description and analysis of the social, intellectual and political aspects of the later Middle Ages, the course continues with an examination of those profound religious, social and political changes which mark the 16th century as the end of the Middle Ages and the beginning of the modern secular era. Also offered as History 514.

**415B 17Th And 18Th Century European History (3).** this course is designed to present the upper-division undergraduate with a firm grasp of the major intellectual, cultural, political and economic developments of 17th and 18th century Europe. It considers the bitter Thirty Years War in Central Europe, the rise of the Netherlands, the fall of Italy and Spain, the rise of constitutional and absolutist styles of government, the scientific revolution, the colonization by European of the Pacific and Indian Ocean Basins, Enlightenment political philosophy, the Agricultural Revolution, and the French Revolution. Also offered for graduate students as Hist 515.

**416R The French Revolution And Napoleon (3).** Narrative history concentrating on the explosive and colorful events and personalities in France, but also showing the European and Western context and impact of the revolution and Napoleon. Illustrated accounts cover such “great days” as the storming of the Bastille, the fall of Robespierre, and Napoleon’s Coup of 18 Brumaire, and great battles. Main periods are: the origins of the revolution (economic, social, political, intellectual); revolution and reconstruction (1789-92); through terror to Thermidor (Jacobins and sans-culottes); Napoleon’s wars and reconstruction (France and Europe). Cinema, slides and martial music periodically. Discussion of major authors and interpretations. Also offered as History 516.

**417R 19Th Century European History (3).** This upper-division course will survey significant trends in warfare, politics, economics, social relations and culture in 19th century Europe, paying particular attention to the rise of modern ideologies and identities, world hegemony, and the social technologies of dehumanization that foreshadowed the unprecedented inhumanities of the 20th century. Also offered for graduate students as Hist 517.

**418R 20Th Century European History (3).** This upper-division course traces the history of Europe in the 20th century. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the issues of modernity and postmodernity, imperialism and decolonization, dehumanization and genocide as well as the role of ordinary people in these systems of mass destruction. Also offered for graduate students as Hist 518.

**419R Contemporary European History: 1950-2000 (3).** This upper-division course traces the history of Europe in the period of living memory. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the rise of globalization and the condition of postmodernity, decolonization and neocolonization, European unification and everyday life. Also offered for graduate students as Hist 519.

**424A Colonial And Post Colonial South Asia (3).** South Asian historians have very effectively applied many new approaches to the studies of the past to modern Indian and Sri Lankan history. This course examines topics and debates in this literature as they bear on the methods and practices of the historian. The topics to be investigated include the nature of colonial rule, the nation-state, and ethnicity. Students will be introduced to issues of methodology, periodization and explanation posed by the relationship between colonial and post-colonial South Asia. The case studies will be drawn from twentieth century India and Sri Lanka, but the topics are of relevance to students of other regions and disciplines. Prerequisites: None. Offered: Fall.

**424R 20Th Century Asia (3).** A survey of the major states of Asia from the beginning of the century to the present, focusing on resistance to Western imperialism, national independence and problems of economic and social change. Also offered as History 524.

**425R European Criminal Justice History, 500-1900 (3).** This course will survey European crime, criminal procedure, policing and punishment between 500 and 1900. Particular attention will be given to changing methods of proof (oaths, ordeals, juries); changing type of criminal activity (banditry, vagrancy, witchcraft, professional theft) and changing penal strategies (the stocks, breaking on the wheel, the workhouse, the prison, the penitentiary). English experiences are emphasized. Also offered as History 525R.

**426R The Scientific Revolution, 1500-1700 (3).** An analysis of the intellectual and social currents which culminated in the Scientific Revolution. After presenting the Renaissance world view, the course will examine the influence of humanism, art, religion, and the voyages of discovery on science, as a prelude to understanding the achievements of Galileo, Harvey, Newton, and the scientific societies of the 17th century. Also offered as History 526R.

**427R The Darwinian Revolution, 1650-1900 (3).** An inquiry into the intellectual background of Darwin's "Origin of Species." The course will examine 18th- and 19th-century attitudes toward time, species, change, race, the age of the earth, the nature of fossils, creation, and evolution, as background to understanding the achievement of Darwin and the reception of his work. Also offered as History 527.

**428A History Of The Body (3).** This advanced course will explore the new field of the history of the body, with particular attention to sexuality and gender. Topics will include the history of sexualities, the body and society, body disciplines, medical practices and representations of illness, beauty and fashion, and the relationship between sexualities and nationalisms. Semester offered: On demand

**428B Women Medicine:Patients & Practitioners From Antiquity To Present (3).** This course explores, in a selective fashion, the role of women in Western medicine both as health care providers and patients. The subject of the history of medicine is too broad to be covered comprehensively in a semester, and so we will focus on diseases or physical conditions which were believed to be limited to women—childbirth, certain mental health conditions, reproductive health, breast cancer— as well as the increasing marginalization of women within the profession of health care providers to those branches concerned primarily with "women's problems." Offered: On demand

**430R The Ordeal Of Total War, Europe, 1900-1950 (3).** This upper-division course traces the history of Europe on its own and in its relations to the rest of the world from its use of genocide "beyond" its shores to its systematic application in Europe. It will survey significant trends in warfare, politics, economics, social relations and culture, paying particular attention to the causes for war and the expansion of violence, modernization and modernity, democracy and totalitarianism, colonization and resistance, mass destruction and everyday life. Also offered for graduate students as Hist 530.

**431R Medieval England, 1066 To 1485 (3).** Beginning with the Norman conquest of England in 1066, this course traces the history of Medieval England through the establishment of the Tudor dynasty. Covered will be such items as the rise of the Angevin Empire, the conflict between monarch & nobility, the evolution of Parliament, as well as the Anglo-French rivalry which culminated in the Hundred Years' War.

**432R Tudor England, 1485-1603 (3).** This course covers England from the accession of Henry VII, the first Tudor, to the death of Elizabeth I in 1603. Topics to be covered are: transformation of England into a modern state, the Reformation, the role of Parliament, conflicts with European powers, especially Spain, etc. Also offered as 532.

**433 Jacksonian Period (3).**

**433R History of Britain 1603-1832 (3).** This course examines the rise and fall of the Stuart dynasty and the effects of civil war, rebellion, and religious turmoil on the peoples of Britain. The domination of politics and culture by the aristocracy in the eighteenth century is examined. The rise of the Navy due to constant warfare and the exploration of the Pacific are discussed. The monarchy of George III, the loss of the American colonies, and the wars with Napoleon are examined. Finally, the Agricultural and early Industrial Revolutions are considered through an analysis of the social changes they brought in Britain and the Empire

**434 American Civil War And Reconstruction (3).**

**434R History of Britain 1832-Present (3).** This course surveys the history of the British Isles from the industrial revolution to the present day. Topics include Victorian society, the rise of the class system, imperialism, the domestic impact of the two world wars, the reaction to the loss of the Empire, pop culture, and contemporary issues.

**436R Modern German History:1890-1990 (3).** This course traces the history of Central Europe from the fall of Bismarck to the reunification of Germany one century later. It will ask students to think critically about the relationship between state and society, elites and 'ordinary' Germans, in the various German-speaking regimes that existed over the course of this era: two empires, two interwar republics, two fascist dictatorships, and three post-fascist republics. All assigned readings will be in English; a background knowledge of European history is recommended. This course follows from History 435/535: the contents and assignments will be coordinated, but the former course is not a prerequisite for the latter.

**437AWI Imperial Germanies, 1848-1918 (3).** This course traces the history of German-speaking Central Europe from the Revolutions of 1848 to the collapse of the Hohenzollern and Habsburg empires at the end of World War One. It will ask students to think critically about the relationship between state

and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading and writing intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work. Prerequisites: History 202, 208 or equivalent

**437BWI First German Republics, 1917-1935 (3).** This course traces the history of the two German Republics during the inter-war years—the First Austrian Republic and the so-called Weimar Republic—from the peace movements of the First World War to the solidification of fascist dictatorships. It will ask students to think critically about the relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping German history. This reading-and writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignment of which students will select what they consider to be the best portfolio of assignments of which students will select what they consider to be the best examples of their work. Prerequisites: History 202, 208 or equivalent

**437CWI The Third Reich, 1930-1950 (3).** This course traces the history of the Third Reich—its origins, nature, and crimes against humanity—from its first electoral successes in the Great Depression to the trials of its leaders for various war crimes. At its center stand the challenging questions of the ethical and historical responsibility for the Holocaust. It will ask students to think critically about the relationship between state and society and the roles played by 'elite' and 'ordinary' people in shaping this tragic era of German and European history. This reading- and writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work. Prerequisites: History 202, 208 or equivalent

**437DWI Cold War Germanies, 1941-1991 (3).** This course traces the history of the three postwar German Republics—the Second Austrian Republic, the German Democratic Republic, and the Federal Republic of Germany—from the initial plans of the Allies for postwar reconstruction to the Reunification of Germany in 1991. It will ask students to think critically about relationship between state and society and the role played by 'elite' and 'ordinary' people in shaping, and in the remembering, of German history. This reading-and writing-intensive course will be run as a seminar. Final grades will be based on a portfolio of assignments of which students will select what they consider to be the best examples of their work. Prerequisites: History 202, 208 or equivalent

**444R Islam And The Arabs: The Formative Period (3).** The first semester of a three-semester sequence begins with a brief overview of the geography and topography of the Middle East. The course proceeds with a discussion of the conditions of pre-Islamic Arabia; the appearance of Muhammad and his mission; the rise and spread of Islam; the establishment and consolidation of the Arab dynasties in the Middle East, North Africa and Spain; Islamic institutions; and Islamic society and culture. The time span will be approximately 500 A.D. to the Mongol conquest of Baghdad in 1258. Also offered as History 544.

**445 The Ottoman Empire In The Middle East To World War I (3).** The second semester of a three-semester sequence covers the transition from Arab to Turkish hegemony in most of the Middle East as well as the restoration of native Persian dynasties in Iran and their subsequent development. The emphasis is on the rise and decline of the Ottoman Turkish Empire. Attention is given to the Ottoman provinces and to the national movements of subject peoples. The course ends with an overview of World War I and the peace treaties which marked the dissolution of the Ottoman Empire. History 444R is not a prerequisite. Also offered as History 545.

**446R The Middle East From World War I To The Present (3).** The third semester of a three-semester sequence deals with the emergence of the modern countries of the Middle East after World War I and their history and course of development to the present day. There will be a general survey of the government and politics, economic situation, and social and cultural characteristics of each important country in the area. In addition, special topics will be discussed such as the modernization process, ideological alternatives, relations with the great powers, the economics and politics of oil, and the Arab-Israeli conflict. History 444R and 445 are not prerequisites. Also offered as History 546.

**462J Japanese Civilization (3).** A survey of Japanese civilization and cultural history from the prehistorical period to the present. Emphasis on the interplay between religion, the arts, politics, and social structure.

**467 Myth And Ritual (3).** "Myth" and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. Will not only trace the shifting meanings of "myth" and "ritual," but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies.

**468R Archaeology And The History Of Antiquity (3).** This course will analyze the contributions of archaeology to the understanding of ancient history. It will cover archaeological excavations and their pertinence to

classical civilization in the Near East and Greece. The techniques and methodology of field archaeologists will be discussed and demonstrated. Archaeological excavations relating to the Hittite capital, to the Ugaritic tablets, to the Minoan-Mycenaean civilization and its link to the Near East will be treated. Also offered as History 568R.

**469 Archaeology And Biblical History (3).** An examination of ancient Israel as she emerges from the ruins of the past, both lapidary and literary. Through a study of the "mute documents," artifacts man-made (storied cities, household utensils, inscribed shards from Jericho to Jerusalem) we gain an insight indispensable for Biblical studies, for ancient Near Eastern history. Also offered as History 569R.

**470 Ancient Egypt (3).** This course describes the political, social and cultural evolution of ancient Egypt from pre-dynastic times, with major emphasis upon the Old, Middle, and New Kingdoms (especially the 18th dynasty and the reign of Akhenaton). Also offered as History 570R.

**471 Ancient Greece (3).** This course begins with a survey of the pre-classical Minoan and Mycenaean civilizations and then describes the rise of prominent Greek city-states (with particular emphasis upon the evolution of Sparta and the political, social and cultural contributions of Athens). The course concludes with the rise of Macedon and Alexander's conquests and significance. Also offered as History 571R.

**472 Ancient Rome (3).** This course covers Roman history from its origins (including the Etruscans) to the decline of the imperial system. Particular emphasis is placed upon the political, social and economic developments in the Republic, the death of the Republic, the early Principate, and the factors that led to Rome's decline in the ancient world. Also offered as History 572R.

**473 History Of Astronomy (3).** The course will examine how and why our views of the planets, the stars, and the universe have changed from Babylonian and Greek times to the 20th century. The course will consider such topics as ancient earth-centered cosmologies, the origin of astrology, the development and acceptance of the Copernican cosmology, the contributions of Newton, Galileo, Kepler and others to uncovering the laws of heavenly bodies, the gradually successful attempts to determine the distances to and composition of the stars, various interpretations of the Milky Way, and the eventual discovery of galaxies beyond our own, as well as touching on such other matters as early views of comets and "new" stars, the development of the telescope, the impact of photography, and early speculations on extraterrestrial life. Also offered as History 573R.

**475WI The History Of Ancient Israel (3).** Judaism has had a tremendous impact on our civilization and yet most Americans are only dimly aware of its origins and development. This course will trace the roots of the Jewish religion in its historical context from its beginnings through the formation of rabbinic culture. The rise of Christianity will be examined in its original Judaic context, and recent discoveries, particularly those pertaining to the Dead Sea Scrolls, will be interpreted. Offered: Fall

**476 Medieval Jewish History (3).** This course covers the general period from the decline of the Roman Empire to the dawn of early modern times. It is concerned with Jewish centers of life and learning in the Diaspora, both East and West. The course considers the Jews under Islamic rule from the time of Mohammed through the Golden Age of Moorish Spain. The focus then shifts to the situation of the Jews in Christian Europe, from the period of Constantine to the expulsions from England, France and Christian Spain. The Jews in the Ottoman Empire are mentioned and the course ends with the episode of Sabbatai Zevi, the false Messiah. Also offered as History 576R.

**477 Modern Jewish History (3).** This course surveys modern Jewish history from the Napoleonic period to World War II. Analyzing the social status of the Jews in Medieval Europe, it proceeds towards a discussion of the growth of the national state and the breakup of the Holy Roman Empire and analyzes the growth of socialism, integral nationalism, and liberalism as they affected the Jewish communities in Europe and America. The course serves as a survey of modern political and economic trends as they affect a distinct group. Also offered as History 577R.

**478 The Holocaust And The State Of Israel (3).** The central events affecting the Jewish people in the 20th century—the Holocaust and the birth of the state of Israel—will be the focal points around which trends in contemporary Jewish life will be analyzed. Also offered as History 578R.

**496 Historical Research Project (1-3).** Working extensively with an individual faculty member actively engaged in his/her research, students practice the multiple facets of investigating the sources of history, developing a comprehensive analysis from such sources, and composing a persuasive interpretation. Prerequisite: History 301 WI and instructor's approval Offered: On demand.

**497 Special Topics And Readings (1-6).** Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies. On demand.

**497A Special Topics And Readings (1-6).** Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies. On demand.

**498WI Senior Capstone (3).** This is the capstone course in the department and is required for majors in the senior year. It consists of tutorial sessions with a regular faculty member and independent research leading to a major paper using original source materials. Performance in this course will weigh heavily in the award of departmental honors. Prerequisites: History 301 and successful completion of the WEPT.

**H201 Honors: Western Civilization To 1600 (3).**

**H202 Honors: Western Civilization Since 1600 (3).**

## Horn Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Horn I (2-4).**

**102 Freshman Horn II (2-4).**

**201 Sophomore Horn I (2-4).**

**202 Sophomore Horn II (2-4).**

**301 Junior Horn I (2-4).**

**302 Junior Horn II (2-4).**

**401 Senior Horn I (2-4).**

**402 Senior Horn II (2-4).**

## Information Technology Courses

**222 Multimedia Production And Concepts (3).** Multimedia production and concepts will give an overview of multimedia technology and communication theory needed to deliver information and to produce interactive presentations for the web, for CD-ROM, and for in-person presentations and demos. The course offers exposure to software, hardware, other multimedia technologies, authoring and copyright matters. Prerequisite(s): CS101- Offered: Winter Semester

**290 Special Topics (1-3).** Selected topics in specific subject areas of Information Technology which are not part of the regular offerings. Prerequisite: Approval of instructor. Offered: Winter

**321 Introduction To Computing Resources Administration (3).** This introductory course is designed to give an overview of a wide variety of technical, interpersonal, documentation, and managerial skills needed to become an effective systems administrator. Prerequisite: CS281 Offered: Winter

**350 Object-Oriented Software Development (3).** Application of object oriented programming languages as a means to implement object oriented designs. Polymorphism through inheritance and interfaces, design methods such as Responsibility Driven Design and such reusable design techniques as abstract classes and frameworks. Event-driven programming and the Java Swing classes for constructing interactive Graphical User Interfaces (GUIs), the basics of the Unified Modeling (UML) and elementary design patterns. Prerequisites: CS201 and CS352. Cross listed as CS 350, and CS 490OS

**490 Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490A Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490C Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490IT Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.



**490J Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490NA Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490NS Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490SD Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**490WD Special Topics (1-3).** Selected topics in specific areas of Information Technology/ Computer Science. May be repeated for credit when the topic varies.

**491 Internship (1-6).** Students may participate in structured internships under the joint supervision of an employer and a faculty member. The student must carry out significant professional responsibilities that also have academic merit. The number of credit hours is based on the quality of the academic experience. Available for credit/nocredit only, and students must be in good standing with a least 18 credit hours of CS/IT counting towards the degree. Registration by consent number only; petition forms for CS/IT 491 Internships are available in the CSEE Division Office. Prerequisite: AT least 18 hours of CS/IT that counts towards the B.I.T. degree.

## Italian Courses

**110 Elementary Italian I (5).** Intended to give the student the ability to read prose of ordinary difficulty and to understand and speak simple Italian. Fall.

**120 Elementary Italian II (5).** Continuation of Italian 110. Winter. Prerequisite(s): Italian 110 or equivalent.

**211 Second Year Italian I (3).** Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisite: Italian 120. Fall.

**221 Second Year Italian II (3).** Continuation of Italian 211. Winter.

**280 Special Intermediate Italian Topics I (2-4).** Instruction of Italian on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate Italian Topics II (2-4).** Continuation of Italian 280. May not be repeated for credit. As needed.

## Latin Courses

**110 Elementary Latin I (5).** Fundamentals of grammar and syntax; selected passages from various Latin authors concluding with readings from Caesar. Every fall.

**120 Elementary Latin II (5).** Continuation of Latin 110. Every Winter. Prerequisite(s): Latin 110 or equivalent.

**211 Second Year Latin Readings I (3).** Selected readings from works by various Latin authors. Grammar review. Prerequisite: Latin 120. Fall.

**221 Second Year Latin Readings II (3).** Continuation of Latin 211. Winter.

**280 Special Intermediate Latin Topics I (2-4).** Instruction of Latin on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**280A Special Intermediate Latin Topics I (2-4).** Instruction of Latin on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.

**290 Special Intermediate Latin Topics II (2-4).** Continuation of Latin 280. May not be repeated for credit. As needed.

**290A Special Intermediate Latin Topics II (2-4).** Continuation of Latin 280. May not be repeated for credit. As needed.

**490 Special Readings In Latin (1-3).** Intensive readings in period or genre or literary figure to be selected by the student in consultation with the instructor. Available only to advanced Latin students.

## Life Sciences Courses

**399 Introduction To Research (1-3).** Introduction to the theory and practice of research in modern biological sciences. Consent of full-time regular SBS

doctoral faculty member and undergraduate programs office required. Requires minimum of 3-4 hours per week in the laboratory for each credit hour. Prerequisites: BIOL 108, BIOL 109, CHEM 212, 3.0 Science GPA. Semester offered: Every semester

**401 Biophysical Principles (3).** Fundamental biophysical concepts and their application to the study of biological molecules, particularly macromolecules and supramolecular structures. Includes discussion of thermodynamics, kinetics, and spectroscopy. Prerequisites: PHYS 240 OR 210, MATH 210 AND LSBIOC 341 Offered: Fall Semesters

**438 Molecular Recognition In Cellular Biology (2).** Studies the latest development leading to an increased understanding of cellular biology processes when the experimental tools of structural biology analysis and molecular genetics are applied. Prerequisites: BIOL 108 & 109, BIOL 360, BIOL 202 & 206. Offered: Fall

**490WI Senior Seminar (3).** Discussion, writing and specific readings to coordinate with and amplify topics covered in School of Biological Sciences seminars; must include a term paper on a specific topic. Designation: Writing Intensive. Prerequisite(s): Completion of core requirements, consent of SBS adviser.

**497A Special Topics-Bioinformatics (1-3).** Individual or small group study of topics in the area of bioinformatics including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements. Prerequisite(s) Completion of Biology degree core requirements; a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Advisor.

**497B Special Topics-Genetics (1-3).** Individual or small group study of topics in the area of genetics including class room work, presentation, library work, and writing of term papers or other reports. Prerequisite: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member, and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497C Special Topics-Microbiology (1-3).** Individual or small group study of topics in the area of microbiology including class room work, presentation, library work, and writing of term papers or other reports. Prerequisite: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497D Special Topics-Physiology (1-3).** Individual or small group study of topics in the area of physiology including class room work, presentation, library work, and writing of term papers or other reports. Prerequisite: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497E Special Topics - Biochemistry (1-3).** Individual or small group study of topics in the area of biochemistry including class room work, presentation, library work, and writing of term papers or other reports. Prerequisite: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497F Special Topics - Biophysics (1-3).** Individual or small group study of topics in the area of biophysics including class room work, presentation, library work, and writing of term papers or other reports. Prerequisite: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497G Special Topics-Cell Biology (1-3).** Individual or small group study of topics in the area of cell biology including class room work, presentation, library work, and writing of term papers or other reports. Prerequisite: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497H Special Topics: Neuroscience (1-3).** Individual or small group study of topics in the area of neuroscience including class room work, presentation, library work, and writing of term papers or other reports. Prerequisites: Completion of Biology degree core requirements, a minimum GPA of 3.0;

consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497J Special Topics-Botany (1-3).** Individual or small group study of topics in the area of botany including class room work, presentation, library work, and writing of term papers or other reports. Prerequisites: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497J Special Topics-Zoology (1-3).** Individual or small group study of topics in the area of zoology including class room work, presentation, library work, and writing of term papers or other reports. Prerequisites: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497K Special Topics-Ecology (1-3).** Individual or small group study of topics in the area of ecology including class room work, presentation, library work, and writing of term papers or other reports. Prerequisites: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497L Special Topics-Biological Sciences (1-3).** Individual or small group study of topics in the area of biological sciences including class room work, presentation, library work, and writing of term papers or other reports. Prerequisites: Completion of Biology degree core requirements, a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements.

**497P Special Topics-Biotechnology (1-3).** Individual or small group study of topics in the area of biotechnology including class room work, presentation, library work, and writing of term papers or other reports. Combined credit for LS 497 and 499 courses may not exceed 4 credit hours towards Biology course degree requirements. Prerequisite(s): Completion of Biology degree core requirements; a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Advisor. Offered: Fall, Winter, Summer

**499A Undergraduate Research-Bioinformatics (1-3).** Independent research, including the writing of research reports in the area of bioinformatics. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements. Prerequisite(s) Completion of Biology degree core requirements a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Advisor.

**499B Undergraduate Research-Genetics (1-3).** Independent research, including the writing of research reports in the area of genetics. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499C Undergraduate Research-Microbiology (1-3).** Independent research, including the writing of research reports in the area of microbiology. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499D Undergraduate Research-Physiology (1-3).** Independent research, including the writing of research reports in the area of physiology. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499E Undergraduate Research-Biochemistry (1-3).** Independent research, including the writing of research reports in the area of biochemistry. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499F Undergraduate Research- Biophysics (1-3).** Independent research, including the writing of research reports in the area of biophysics. Prerequisites: Completion of Biology degree core requirements, minimum

GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499G Undergraduate Research-Cell Biology (1-3).** Independent research, including the writing of research reports in the area of cell biology. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499H Undergraduate Research-Neuroscience (1-3).** Independent research, including writing of research reports in the area of neuroscience. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499I Undergraduate Research-Botany (1-3).** Independent research, including the writing of research reports in the area of botany. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0, consent of faculty member; permission from a school of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499J Undergraduate Research-Zoology (1-3).** Independent research, including the writing of research reports in the area of zoology. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0, consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499K Undergraduate Research-Ecology (1-3).** Independent research, including the writing of research reports in the area of ecology. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0, consent of faculty member; permission from a School of Biological Sciences Undergraduate Adviser. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499L Undergraduate Research-Biological Sciences (1-3).** Independent research, including the writing of research reports in the area of biological sciences. Prerequisites: Completion of Biology degree core requirements, minimum GPA of 3.0; consent of faculty member; permission from a School of Biological Sciences Undergraduate Advisor. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements.

**499M Undergraduate Research-Biological Sciences Honors (1-3).** Independent research, including the writing of research reports in the area of biological sciences. Prerequisites: Consent of SBS adviser required.

**499P Undergraduate Research-Biotechnology (1-3).** Independent research, including the writing of research reports in the area of biotechnology. Combined credit for LS 497 and 499 may not exceed 4 credit hours towards biology course degree requirements. Prerequisite(s) Completion of Biology degree core requirements a minimum GPA of 3.0; consent of an appropriate faculty member; and permission from a School of Biological Sciences Undergraduate Adviser. Offered: Fall, Winter, Summer

**H490WI Honors Senior Seminar (3).** Discussion, writing and specific readings to coordinate with and amplify topics covered in School of Biological Sciences seminars; must include a term paper on a specific topic. Designation: Writing Intensive. Prerequisite(s): Completion of core requirements, consent of SBS adviser.

## Life Sciences - Anatomy Courses

**118 Introductory Anatomy (3).** Description and discussion of the cells, organs, organ systems and basic tissues of vertebrates with special emphasis on their interrelationships in functional anatomy. Three hours lecture per week.

**118L Introductory Anatomy Laboratory (2).** Laboratory investigation of cells, tissues, and organs with special emphasis on their interrelationship in vertebrates. One hour recitation and three hours lab per week. Pre/co-requisite: LS ANAT 118

**119 Functional Anatomy I (3).** An introduction to the functional anatomy of vertebrates with emphasis on organs, organ systems and tissues. Three hours lecture per week.

**119L Functional Anatomy I Laboratory (1).** An introduction to the functional anatomy of vertebrates with emphasis on organs, organ systems and tissues. Three hours recitation per week.

## Life Sciences - Biochemistry Courses

**304 Biochemistry And Nutrition (4).** The chemistry of the structures and processes of the human body in their normal condition with special

consideration of the chemical aspects of disease of the oral structure. A presentation of the basic principles of nutrition.

**3120 Biochemistry And Nutrition (3).** The fundamentals of biochemistry and the nutritional implications as they relate to source and utilization of essential nutrients.

**3240 Applied Nutrition (3).** Students will discuss life cycle nutrition as it relates to preventive dentistry and total health. Nutritional factors from infancy to old age are discussed, including diet and nutrition for special patients such as expectant mothers, diabetics, patients with heart disease, fracture patients, institutionalized patients, etc. Students will provide nutritional counseling to healthy patients and special patients within the framework of the course. Principles will be utilized in later clinical courses and practicums.

**341 Basic Biochemistry (3).** One semester course covering the properties of organic compounds important to biological systems. Structures, characterization and reactions of common compounds and their relationship to the building blocks of biological systems will be discussed. Three hours lecture per week. Prerequisites: BIOL 202, and CHEM 320, or CHEM 322.

**360 Biochemistry (3).** Introduction to modern biochemistry. Structure and function of biologically important compounds, major biochemical pathways and their regulation in animals, plants and microorganisms, and the molecular and biochemical basis of gene function will be studied. Three hours lecture per week. Prerequisites: BIOL 202, BIOL 206, LSBIOC 341, and CHEM 320 or CHEM 322.

**360L Laboratory In Biochemistry And Molecular Biology (3).** Laboratory studies in biochemistry and molecular biology with an emphasis on modern techniques and quantitative relationships. Written consent of the instructor required. Prerequisites: LS BIOC 360, MATH 220 and a 3.0 science GPA.

**360WL Laboratory In Biochemistry And Molecular Biology (3).** Laboratory studies in biochemistry and molecular biology with an emphasis on modern techniques and quantitative relationships. Written consent of the instructor required. Designation: Writing Intensive. Prerequisite(s): LSBIOC 341.

**365 Human Biochemistry I (3).** The basic principles of human biochemistry for pharmacy students presented in a two-term integrated unit. Topics will include the chemistry and mechanisms involved in biosynthesis, degradations and utilization of the major constituents of living systems and the biochemistry of specialized tissues, hormones, nutrition and regulation. Restricted to students in the School of Pharmacy. Prerequisites: BIOL 202 (pre or corequisite) and CHEM 320 or 322R.

**366 Human Biochemistry II (3).** The basic principles of human biochemistry for pharmacy students and other undergraduates presented in a two-term integrated unit. Topics will include the chemistry and mechanisms involved in biosynthesis, degradation and utilization of the major constituents of living systems and the biochemistry of specialized tissues, hormones, nutrition and regulation. Restricted to students in the School of Pharmacy. Prerequisite: LS BIOC 365G

**425 Bioinformatics (3).** Study of the acquisition, storage, retrieval, analysis, modeling, and distribution of information in biomolecular databases. Recent developments in genomics and proteomics and how these databases are used in modern biological research will be emphasized. Prerequisites: LSBIOC 341 or permission of instructor

**430 Molecular Biology And Genetic Engineering (3).** Molecular aspects of gene structure and function, including macromolecular synthesis, gene regulation, genetic transfer and biotechnology will be discussed in prokaryotes and eukaryotes. Three hours lecture per week. Prerequisites: BIOL 202, BIOL 206, and LSBIOC 341.

## Life Sciences - Microbiology Courses

**112 Microbiology And Living (3).** Lectures and demonstrations concerning the cell structure, genetics and physiology of microorganisms and the role microorganisms play in the world around man with an emphasis on medical and clinical aspects of the significance of various groups of bacteria, viruses fungi and other microorganisms. This course is intended for nursing and other allied health students and for non-biology majors interested in life sciences. Prerequisite: None

**113 Introductory Microbiology (3).** An introduction to microbiology with emphasis on infection and the basis of immunity. Three hours lecture per week. For non-majors only; does not count toward Biology degree requirements. Prerequisite(s): High School Biology and Chemistry background highly recommended.

**114L Introductory Microbiology Laboratory (2).** Introductory laboratory studies in microbiology and infection to correlate with LSMCRB 113. Four hours per week. For non-majors only; does not count toward biology degree requirements. Prerequisite: LSMCRB 112 or 113.

**121 Human Biology III (Microbiology) (3).** Basic concepts of microbiology with emphasis on infectious diseases and host defenses. Three hours lecture per week. Prerequisite(s): LSNAT 119, CHEM 211

**121L Human Biology III (Microbiology) Lab (1).** Laboratory exercises demonstrating basic concepts of microbiology with emphasis on infectious diseases and host defenses. Three hours laboratory per week. Prerequisites or corequisite: LSMCRB 121 Offered: (semester)

**313 Microbiology (3).** Fundamental and applied aspects of microbial structure, metabolism, genetics and diversity. Experimental approaches to studying the microbial world will be emphasized. Three hours lecture per week. Prerequisites: BIOL 202, BIOL 206, and LSBIOC 341 co-requisite.

**313L Laboratory In Microbiology (3).** General microbiological procedures plus advanced work in the areas of microbial physiology and genetics, pathogenic microbiology, virology, applied microbiology and biotechnology. One hour lecture and six hours lab per week. Pre- or co-requisites, LSMCRB 313, LSBIOC 341, consent of SBS adviser. Offered: Fall

**313WL Laboratory In Microbiology (3).** General microbiological procedures plus advanced work in the areas of microbial physiology and genetics, pathogenic microbiology, virology, applied microbiology, and biotechnology. One hour lecture and six hours lab per week. Designation: Writing Intensive. Prerequisite: Pre- or co-requisites, LSMCRB 313, LSBIOC 341 Offered: Fall

**431 Virology (3).** Survey of the molecular biology of animal, plant, and bacterial viruses. The course will emphasize the molecular mechanisms of virus replication, viral pathogenesis, and the use of virus as model systems to study mammalian cells. Three hours lecture per week. Prerequisites: Biol 202 and 206; pre or co-requisite LSBIOC 341 or 365

**435 Immunology (3).** A study of the cellular and humoral aspects of the immune response, with emphasis upon the mechanisms involved and the relationship of this response to disease processes. Three hours lecture per week. Prerequisites: LSMCRB 121 or LSMCRB 313, and LSBIOC 341 or LSBIOC 366. Offered: Winter Semesters

## Life Sciences - Physiology Courses

**117 Human Physiology (3).** Introduction to body functions presented from an organ systems approach. Three hours lecture per week. For non-majors only; does not count toward biology degree requirements.

**3070 Oral Physiology (3).** Concepts of general physiology will be discussed as they relate to the clinical practice of dental hygiene. Emphasis will be placed on the normal and abnormal physiology of oral structures, including such topics as neurophysiology, muscle function, salivation, and endocrinology.

**316 Principles Of Physiology (3).** Physiological functions and processes of animals at the organ and organ systems levels, including concepts of integrated and homeostatic mechanisms. The relationship between organ function and underlying cellular mechanisms in vertebrates will be emphasized. Three hours lecture per week. Prerequisites: BIOL 202, BIOL 206, and LSBIOC 341.

**399 Pharmacy Physiology I (3).** Introduction to the general principles of neurophysiology. Prerequisites: BIOL 202 and CHEM 320.

**400 Pharmacy Physiology II (3).** The principles of physiology presented by an integrated approach based on an organ system format. Emphasis is placed on facts and principles pertinent for the student enrolled in pharmacy. Prerequisite: LSPHYS 399.

**401 Physiology Lecture (5).** An integrated study of normal functions of various organ systems of the human body with special consideration of the physiology of the oral cavity and its related structures.

## Management Courses

**100 The Freshman Connection (3).** An introduction to college life and tools that are needed for a successful educational and professional career. Topics vary and often include overviews of University and Bloch School resources, career exploration, presentation skills, cultural diversity, time and stress management, learning styles, and study strategies. Open to freshmen.

**301 Business Writing (3).** Business Writing introduces students to the strategic nature of business communication. By the end of the course, students should be able to analyze business situations and prepare messages that fulfill all of the intended purposes of their communication, meet the needs and expectations of business audiences, and take into account other relevant contextual factors. Students will develop the tools to deliver polished, professional communications in a variety of media. Prerequisite: ENGL 225, must complete in junior year

**302 Business Research and Presentations (3).** This course will emphasize the development of higher-order thinking skills, which include analysis, synthesis, and evaluation. By the end of the course, students will learn to analyze financial statements, effectively use library and electronic business research tools, and prepare and deliver effective oral and written presentations. Prerequisites: COM ST 110, ACTG 211, MIS 203 or BIS 202, MGT 301

**306 Legal, Ethical And Regulatory Environment Of Business (3).** The course looks at legal and moral thought, with attention to ethical issues in business. Students are introduced to our common law system; selected areas of

law, with attention to the inclusion of cultural and moral values; and an introduction to government regulation of business.

**320 Law Of Commercial Transactions (3).** Study of major areas of law included in the Uniform Commercial Code. Topics may include sales, commercial paper, bank deposits and collections, aspects of property law, documents of title, investment securities, and secured transactions. Prerequisite: MGT 306 or BMA 306.

**330 Understanding the Individual in the Organization (3).** This course explores the micro dynamics of organizations: the individual and his/her relationship to other people, teams, and work groups. Topics will include: individual traits, behaviors, and skills for effective performance; self-assessment and professional development; staffing; motivation; individual and group dynamics; multicultural understanding and diversity; and ethical decision making.

**337 Managing Human Capital (3).** Building on prior coursework, this course will provide students with advanced human resource concepts and practices as well as practical experience in how human resources should be managed in successful businesses. Student groups will work with a local organization to diagnose, analyze, and make recommendations regarding effective programs in staffing, developing, rewarding, motivating, and managing its personnel. Prerequisite: MGT 330 or BMA 305

**355 Organizational Effectiveness and Leadership (3).** Students will study the macro dynamics of organizations: broad knowledge of how organizations work and the various ethical means of impacting outcomes. Topics will include: structure, culture, and politics of organizations; human resources and linkages to organizational culture and success; organizational influence and political savvy; managing change and learning in a global context; organizational governance, codes of conduct, and internal controls; the role of business in society; and various professional development issues. Prerequisite: MGT 330 or BMA 305

**370 International Management (3).** Students receive an introduction to management in an international environment, addressing the management functions and behaviors necessary to develop global vision and management skills at a strategic (macro) and interpersonal (micro) level. Cross-cultural management and competitive strategy are evaluated in the context of global changes.

**470 International Study in Business (3-6).** This course is designed to provide a study-abroad experience for the student. The course involves three components: study of international business through on-campus lectures and discussions; travel to a foreign country for visitations to business firms, government organizations, and cultural sites; and critique sessions of the international learning experience after travel completion.

**471 Strategic Management (3).** The study of business strategy concepts and application using case studies representing "real world" situations. The course stresses the formulation of business strategies to achieve organizational objectives using strategic analysis and models based upon external and internal assessments of the organization's environment. Prerequisites: ACTG 211, FIN 325, or BA 325, MGT 330 or BMA 305, MKT 324 or BA 314, DSOM 326 or BA 426 or concurrent enrollment.

**496 Special Topics: Management (1-3).** Study and research in areas of special interest under individual faculty direction. Prerequisite: Senior Standing and pre-registration consent of instructor

**497 Special Topics: Strategic Management (1-3).** Study and research in areas of special interest under individual faculty direction. Prerequisites: Senior Standing and pre-registration consent of instructor.

## Management Information Systems Courses

**100 Essentials of PowerPoint (1).** An overview of numerous topics needed to take the Microsoft Office Specialist certification exam in PowerPoint. Topics covered will include creating and formatting content, and managing and delivering presentations.

**101 Essentials of Excel (1).** An overview of numerous topics needed to take the Microsoft Office Specialist certification exam in Excel. Topics covered will include creating, analyzing, and formatting data and content and managing workbooks.

**203 Computer Applications for Business (3).** A comprehensive coverage of computer tools for personal productivity in a management context, including advanced coverage of spreadsheets and introduction to databases. Prerequisite: Math 110 and Certification as Microsoft Office Specialist in Excel and PowerPoint.

**402 Information Technology Impact and Business Processes (3).** This course introduces students to the impact of information technologies and systems on various business processes throughout the enterprise. Students use case studies to examine organizational processes, and to design and develop information systems. Decision support capabilities are explored as well. Prerequisites: ACTG 210, MIS 203 or BIS 202, and MKT 324 or BA 324

**415 Managing the Information Systems Resource (3).** All organizations today have information systems, and managing the related resources (systems personnel, software applications, databases, networks, computing hardware) is a necessary skill for many employees. This course is aimed at developing the non-technical skills that business-school graduates need to make appropriate decisions about the deployment of information systems throughout the firm. Prerequisites: MIS 203 or BIS 202, and six hours of business school courses at the 300-level or above

**469 Information Systems Consulting (3).** An application of systems concepts to the evaluation and implementation of information systems. Student teams will analyze, document and make recommendations for the improvement of these systems, and will communicate their findings via written reports and oral presentations. Course content might be actual projects for local organizations, or it might be a simulation of a consulting engagement. Prerequisite: Senior Standing and Instructor Permission

**496 Internship: Management Information Systems (1-3).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Prerequisite: Admission only by prior approval and consent of instructor

**497 Special Topics: Management Information Systems (1-3).** Study and research in areas of special interest under individual faculty direction. Prerequisite: Senior Standing and pre-registration consent of instructor

## Marketing Courses

**324 Marketing Concepts (3).** The course focuses on the processes involved in the marketing of goods and services, including the meaning and importance of marketing terminology, the marketing mix, the marketing concept, consumerism, market segmentation, market and marketing research, and the impacts of different competitive structures on marketing decision making.

**335 Consumer Behavior in Marketing (3).** This course draws upon findings from various disciplines including cognitive psychology, social psychology, sociology, economics, and anthropology to understand and predict buying behavior. Structured around applications in marketing strategy, topical coverage includes motivation, perception, attitude change, choice decisions and the consumption process, as well as post-purchase satisfaction. Prerequisite: MKT 324 or BA 324

**348 Market Analysis (3).** Market Analysis equips students with the tools needed to be intelligent users of market data. Topics to be covered include the design of research projects, questionnaire design, sampling, data collection techniques, data analysis, and the presentation of results. Prerequisite: MKT 324 or BA 324

**418 Sales and Promotion Strategies (3).** Students receive exposure to the planning, implementation, and evaluation of various revenue-generating and promotional strategies. Topics covered will include the analysis of customers, competitors, and product markets; market segmentation; product positioning; media planning; promotional effectiveness; and client-agency relationships. Prerequisite: MKT 324 or BA 324

**442 Internet/Direct Marketing (3).** This course examines various aspects of traditional direct marketing (e.g., print media and list management); however, it emphasizes electronic/Internet marketing, including hands-on applications. Coverage will include how technology affects an organizations business and consumer practices, and existing marketing mix; database marketing (as well as applications of data warehousing and data mining); Website strategies; and future directions of the field. Prerequisite: MKT 324 or BA 324

**476 Services Marketing (3).** The purpose of this course is to show how the marketing of services differs from the marketing of goods. Additionally, students will learn the relationship between service quality and customer satisfaction, how to understand and assess service expectations, and how to match those expectations with company standards. Prerequisite: MKT 324 or BA 324

**480 Marketing Strategy (3).** This senior-year capstone examines various activities within the overall marketing process, and introduces the development and application of an analysis framework. The use of case problems and technology, and exposure of issues related to ethics, allow the student to gain a full understanding of the relationship between marketing and management. Prerequisite: Nine hours of marketing, including MKT 324 or BA 324

**496 Internship: Marketing (1-3).** An opportunity for students to integrate their academic studies via employment with a business/organization in the community. Prerequisite: Admission only by prior approval and consent of instructor

## Mathematics Courses

**100 Intermediate Algebra (3).** Numbers and their arithmetic properties, introduction to elementary algebra including exponents and radicals, elementary geometry and formulas, linear and quadratic functions and their graphs, and equations with two unknowns. Given on credit, no-credit basis.

Does not fulfill Arts and Sciences mathematics requirement. Does not count toward graduation. Fall, Winter,

**105 The Language Of Mathematics (3).** Reading comprehension and writing skills in the language of Mathematics; grammar, syntax and logic, understanding, expressing, proving; recognizing and employing common patterns of mathematical thought; emphasizing not what is said, but how it is said. Particularly useful to students returning to school after a long hiatus, the math-anxious, students with weak skills, and those interested in elementary or middle school teaching. Prerequisite: Three units of high school mathematics

**110 College Algebra (3).** Review of elementary algebra, solution of equations, functions, exponential and logarithmic functions, inequalities, systems of linear equations, equations of second degree and their graphs, binomial theorem, complex numbers, and polynomials. Credit will not be given for both Math 110 and Math 120. Prerequisite: Three units of high school mathematics (Algebra I and higher) or Math 100. Fall, winter, summer.

**116 Mathematics For Liberal Arts (3).** A survey of elementary mathematics covering such topics as: logic, sets, counting methods, introduction to probability theory, introductory statistics, plane and coordinate geometry. The course will emphasize mathematical concepts and does not require the level of computational skill of College Algebra. Topics from the history of mathematics will be presented as well as the influence of mathematics on a variety of disciplines. Prerequisite: Three units of high school mathematics (Algebra I and higher). Offered: Fall, Winter

**120 Precalculus (5).** Review of elementary algebra, solution of equations, functions, inequalities, systems of linear equations, exponential and logarithmic functions, trigonometric functions, trigonometric identities, triangles, equations of second degree and their graphs, binomial theorem, complex numbers, and polynomials. Credit will not be given for both Math 120 and Math 110 or for both Math 120 and Math 125. Prerequisites: Three units of high school mathematics (Algebra I or higher) or Math 100. Fall, Winter, Summer.

**125 Trigonometry (2).** Trigonometric functions, trigonometric identities, triangles, and complex numbers. Credit will not be given for both Math 125 and Math 120. Prerequisite: Two units of high school algebra and one unit of geometry, or Math 110. Fall, winter, summer.

**130 Mathematics For Teachers: Number Systems (3).** Designed for elementary school teachers. A constructive development of the real number system beginning with the system of whole numbers; concepts from elementary number theory; applications of quantitative systems to problems in discrete mathematics. Prerequisite: High school algebra and geometry. Offered: Fall, Winter, Summer

**140 Mathematics For Teachers: Elementary Geometry (3).** Designed for elementary school teachers. A development from informal geometric concepts to elements of the Euclidean deductive system; groups of congruence transformations, similarity transformations and symmetries; coordinate systems and vectors. Prerequisite: High school algebra and geometry. Fall/Winter

**204 Mathematics For Teachers: Mathematical Immersion (3).** Adaptable for elementary-, middle-, or secondary-school mathematics teachers. Intensive problem-solving experience. Develop confidence and enthusiasm about recognizing mathematics reasoning in oneself and in students. Combat mathematics anxiety and myths. Encourage flexibility in the mathematical knowledge of teacher candidates. Prerequisites: Math 120, 130, 140, or any mathematics course numbered 200 or above.

**205 Discrete Mathematics (3).** Logic, sets, and functions. Algorithms, especially integer algorithms. Methods of proof, especially induction and recursion, counting principles, and discrete probability. Relations and partial ordering with applications. Graphs, circuits, and paths. Prerequisite: 4 units of high school math, or Math 110. Offered: Fall, winter, summer.

**206 Brief Calculus And Matrix Algebra (3).** Brief review of selected topics in algebra. Introduction to matrix algebra. Introduction to differential calculus and optimization. Applications to problems in business. Credit will not be given for both Math 160 and Math 206 Prerequisite: Math 110, or equivalent Offered: Every semester

**210 Calculus I (4).** Functions and graphs, rational, trigonometric, exponential functions, composite and inverse functions, limits and continuity, differentiation and its applications, integration and its applications. Prerequisite: Four units of high school mathematics including trigonometry, or Math 120, or Math 110 and Math 125, or Math 202. Offered: Fall, Winter, and Summer

**214 Mathematics For Teachers: Algebra (3).** Designed for middle school mathematics teachers. Algebraic reasoning, patterns and inductive reasoning, arithmetic and algebra of integers, algebraic systems, algebraic modeling in geometry, axiomatic mathematics. Prerequisites: Math 110, Math 130, and one of Math 140 or Math 224 Offered: Fall/Winter

**220 Calculus II (4).** Techniques of integration, applications of the definite integral, improper integrals, sequences and series, power series. Taylor series and convergence, analytic geometry in calculus. Prerequisite: Math 210. Fall, Winter, Summer.

**224 Mathematics For Teachers: Geometry (3).** Designed for middle school mathematics teachers to connect middle school and college mathematics. Geometric reasoning, Euclidean geometry, congruence, area and volume, similarity, rigid motions and symmetry, vectors and transformations, some other geometries. Prerequisites: Math 110, Math 130, Math 140 is recommended Offered: Fall/Winter

**244 Mathematics For Teachers: Calculus (3).** Designed for elementary-and middle-school mathematics teachers. Elementary calculus, beginning with sequences and series, proceeding to functions, limits, continuity, differentiation and integration. Focus on concepts and applications with a discovery and inquiry approach. Prerequisites: Four units of high school mathematics including Trigonometry, or Math 120, or Math 110 and Math 125. Offered: Winter

**250 Calculus III (4).** Vectors, solid analytic geometry, vector functions and multiple variable functions, partial derivatives, multiple integrals, line and surface integrals with applications. Prerequisite: Math 220. Fall, Winter, Summer

**300 Linear Algebra I (3).** Vectors, matrices, linear equations, matrix algebra, determinants, vector spaces, linear transformations, vector spaces with an inner product. Prerequisite: Math 250, or consent of instructor Offered: Fall, Winter

**301 On Solid Ground: Sets And Proofs (3).** Transition to advanced mathematics, elements of set theory and cardinality of sets, logic, mathematical proof techniques, induction, functions, elementary proofs in various subjects such as algebra, number theory, calculus, and others as time permits. Satisfies a state requirement for teacher certification. Prerequisite: Math 220

**345 Ordinary Differential Equations (4).** First order equations, linear second order differential equations, Taylor series and power series solutions, Laplace transforms, elementary systems of differential equations, numerical methods, and Fourier series and boundary value problems. Prerequisite: Math 250. Fall, winter, summer.

**400 Introduction To Number Theory (3).** Congruences and residue classes. The theorems of Euler and Fermat. Primitive roots and indices. Quadratic residues. The Legendre and Jacobi symbols, the law of quadratic reciprocity. Number theoretic functions: the Euler phi-function, the Moebius inversion formula. Quadratic forms. The approximation of irrationals by rationals. Prerequisite: Math 301

**402 Advanced Analysis I (3).** Numerical sequences and completeness of the real numbers, numerical series, continuity and differentiation of real-valued functions of a real variable, integration and the fundamental theorem of calculus. Prerequisite: Math 250 and Math 301

**406 Partial Differential Equations (3).** Separation of variables, boundary value problems, Fourier series and integrals, wave equation, heat equation, potential equation, problems in several dimensions, and Bessel's differential equation. Prerequisite: Math 345. Offered: Winter.

**407 Introduction To Complex Variables (3).** Complex numbers, complex differentiation, elementary functions, contour integration and the Cauchy integral formula, Taylor series and Laurent series, residue calculus and its applications, and special functions. Prerequisites: Math 250, and one of Math 300, 301, or 345, with Math 301 recommended Offered: Fall

**410 Modern Algebra (3).** Groups, rings, integral domains, fields and polynomial rings. Prerequisite: Math 300 and Math 301.

**412 Advanced Analysis II (3).** Topics in advanced analysis such as sequences and series of functions, power series and elementary functions, Fourier series, metric spaces, analysis in Euclidean spaces, or advanced integration. Prerequisite: Math 402 or consent of instructor Offered: Winter

**414 Mathematics For Secondary Teachers: Algebra And Analysis (3).** Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Real and complex numbers, functions, algebraic structures of equations, integers and polynomials, number system structures; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as Math 5514, an extra project is required. Prerequisites: Math 220, Math 301, and one of Math 402 or Math 410 Offered: Winter

**420 Linear Algebra II (3).** Vector spaces and linear transformations, eigenvalues and eigenvectors, vector spaces with an inner product, orthogonality, least squares approximation, quadratic forms singular value decomposition, the theory of determinants. Prerequisite: Math 300 Offered: Winter

**424 Mathematics For Secondary Teachers: Geometry (3).** Designed for secondary-school teachers. Examine high school mathematics from a higher point of view. Congruence, distance and similarity, trigonometry, area and volume, axiomatics and Euclidean geometry; analyses of alternate approaches, extensions, and applications of mathematical ideas, discussion of historical contexts and connections between ideas that may have been studied separately in different courses, relationships of ideas studied in secondary-school to those students may encounter in later study. When taken for graduate credit as Math 5524, an extra project is required. Prerequisite: Math 220, Math 301, and one of Math 402 or Math 410 Offered: Fall or Winter as needed

**430 Numerical Analysis I (3).** Error analysis, solutions of equations of one variable, interpolation and polynomial approximation, numerical integration and differentiation, numerical solutions of initial-value problems. Prerequisite: Math 250

**440 Numerical Analysis II (3).** Direct and iterative methods for solving linear systems, introduction to approximation theory, approximating eigenvalues and eigenvectors, solution of systems of nonlinear equations. Prerequisites: Math 300 and Math 430, or consent of instructor Offered: Winter

**444 Modern Geometries (3).** Modern axiomatic development of Euclidean geometry and neutral geometry, followed by examination of non-Euclidean geometries; geometric transformations, and other geometries as time permits. Satisfies a state requirement for teacher certification. Prerequisites: Math 300 and Math 301

**464WI History Of Mathematics (3).** Topics in the History of Mathematics from Babylonian times through the invention and consolidation of Calculus, with some modern subjects as time permits. The course will emphasize proofs, ideas, and arguments as given in original sources (in translation) from around the world and throughout history. In this writing intensive course, one or two term papers, in addition to several short essays and historical proof explanations are required. A field trip will be taken to the Linda Hall Library Rare Book Room. This course is of special interest to secondary mathematics teachers as well as mathematics majors. Prerequisites: Math 300 or Math 301. Math 301 is recommended.

**490 Special Topics (1-3).** Selected topics in various fields of mathematics. May be repeated for credit when the topic varies. Prerequisite: consent of instructor. On demand.

## Mechanical Engineering Courses

**111 Essential Engineering (3).** Introduction to the practice and history of engineering including its impact on human history, product design/development and its relationship to the ecosystem, professionalism and ethics, the engineering approach to solving real-world problems, engineering communications and calculations, engineering teamwork and case studies. (Same as CE 111).

**130 Engineering Graphics (3).** Introduction to Engineering Graphics with the use of the Computer Aided Design tools AutoCAD and SolidWorks. Introduction to 2D design with AutoCAD includes: basic features, layer control, geometric constructions, orthographic projections, dimensioning and notes, tolerancing, section views, and working drawings. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling and engineering drawings. No previous 2D or 3D CAD experience is necessary to take this class. Semester Offered: Fall/Winter

**131 Engineering Graphics-3D Design (1).** Introduction to Engineering Graphics using the 3D Computer Aided Design tool SolidWorks. Introduction to 3D design with SolidWorks includes: part modeling, revolved features, sweeps, lofts, assembly modeling, and engineering drawings. Some previous 2D AutoCAD experience is required to take this class. NOTE: This class starts halfway through the semester by joining in with ME130 when they finish AutoCAD and begin SolidWorks. Prerequisite: 2D AutoCAD experience.

**211 The Engineering Enterprise (3).** The engineering enterprise course covers four topics essential for engineering students with new venture creation interests: creating economic value, leadership, finance, and marketing. The primary objective of this course is to motivate the student to think as a blend of an engineer and a businessperson. (Same as CE 211). Pre/corequisite: ME 111

**219 Computer Programming For Engineers (3).** Analysis and synthesis of structured computer algorithms for solving engineering problems using high level programming tools such as Excel, Matlab, Fortran and/or C++. (Same as CE 219) Prerequisite: Math 210

**220 Electric Circuits (3).** Introduction to electric circuits for civil and mechanical engineering students. Prerequisites: ME219, Phys 250 Corequisite Math 345 Offered: Winter

**285 Engineering Dynamics (3).** Basic fundamentals of particle and rigid body dynamics; energy and momentum methods; computer use. Prerequisite: CE 275.

**299 Engineering Thermodynamics (3).** Fluid properties, work and heat, first law, second law, entropy, applications to vapor and ideal gas processes. Prerequisites: Physics 240 and Math 220.

**301 Fundamental Topics In Mechanical Engineering (3).** Current and new technical developments in mechanical engineering. Prerequisite: instructor's consent.

**301E Topics In Mechanical Engineering (3).**

**306 Computer-Aided Engineering (3).** Principles, analysis and application of numerical methods for the solution of engineering problems. Computer implementation. Prerequisites: ME 319 and Math 345

**311 The Technical Entrepreneur (3).** The guiding principal for the course is that entrepreneurs are innovators and operate in an uncertain and risky environment. The course looks at the entrepreneurial mindset and the process of new product line launch. (Same as CE 311). Prerequisite: ME 211

**319 Engineering Computation And Statistics (3).** Statistical distribution functions and application to engineering problems. Limited treatment of curve-fitting and time-series analysis. Structured programming in Matlab. (Same as CE 319) Prerequisite: ME 219 and Math 220

**324 Engineering Materials (4).** The nature of the structure of engineering materials. The relationship of material structure to the physical properties. Mechanical behavior of engineering materials. Prerequisites: ME 299, CE 276 and CHEM 211.

**351 Fluid Mechanics (3).** Concepts of the statics and dynamics of fluids, with emphasis on principles of continuity, momentum and energy. Boundary layers, dimensional analysis and drag are covered briefly. Thorough treatment of pipe flow. (Same as CE 351.) Prerequisites: ME 285.

**352 Instrumentation & Measurements Lab I (3).** Static and dynamic errors; experiment design; instrumentation selection and calibration; measurement of voltage, resistance, amperage, duration, frequency, displacement, velocity, acceleration, strain, force and torque. Prerequisites: ME 285, CE 276, MATH 345, and ECE 276 or concurrently.

**360 Thermal System Design (3).** Gas and vapor mixtures, cycles, availability, imperfect gases, thermodynamic relations, combustion, chemical equilibrium, power systems and design projects. Effects of design choices on the earth and living systems. Prerequisites: ME 299, Math 250; Co-requisite: ME 351

**362 Instrumentation & Measurements Lab II (3).** Continuation of 352 with emphasis on instruments to measure temperature, pressure, fluid flow, fluid velocity, sound, spectral content and emissions. Prerequisites: ME 351 and ME 352. Corequisite: ME 399.

**380 Manufacturing Methods (3).** Introduction to manufacturing processes with emphasis on those aspects most relevant to methods, problems in force analysis, and practicum and experimentation in machine tool applications. Prerequisites: ME 324.

**385 System Dynamics (3).** Kinematics of mechanical systems. Introduction to the modeling and analysis of dynamic mechanical systems. Computer analysis. Prerequisites: ME 285 and Math 345.

**390 Engineering Coop/Internship (0).** Students may participate in structured Engineering Coop/ Internship under the supervision of employer. They must carry out significant professional responsibilities and whatever additional assignments are determined by the employer. Prerequisites: ME 285 and CE 211.

**399 Heat And Mass Transfer (3).** Fundamentals of conduction, convection, and radiation heat transfer. Use of nondimensional parameters. Theory of heat exchangers. Mass transfer. Prerequisites: Math 345, ME 319, ME 351 Pre/corequisite: ME 306

**400 Problems (1-6).** Special design, experimental and analytical problems in mechanical engineering.

**401 Topics In Mechanical Engineering (1-3).** Current and new technical developments in mechanical engineering. Prerequisite: instructor's consent.

**401BN Topics In Mechanical Engineering (1-3).**

**401H Topics In Mechanical Engineering (1-3).**

**401M Topics In Mechanical Engineering (1-3).**

**401P Topics In Mechanical Engineering (1-3).**

**401SA Topics In Mechanical Engineering (1-3).**

**401V Topics In Mechanical Engineering (1-3).**

**411 Biomechanics (3).** This course is to provide students with an introduction to the engineering principles of biomechanics. Following a general introduction to anatomical terminology, students will be exposed to three primary sub-disciplines of biomechanics including kinetics and kinematics of human movement, muscle mechanics, and biomaterials. Students will become familiar with measurement techniques and current research being done within each of these units through lectures and in-class discussions and presentations of relevant journal articles. A final semester project, culminating in a NIH-style research proposal, will be developed throughout the semester in one of the three units presented.

- 414 Material Science For Advanced Applications (3).** Study of the physical and mechanical metallurgy of alloy systems of interest in engineering applications. Prerequisite: ME 324.
- 415 Feedback Control Systems (3).** Introduction to feedback control theory for linear dynamic systems. Topics include root locus analysis, frequency response analysis, and controller design. Prerequisite: ME 385
- 420 Human Powered Vehicle Design Lab (3).** Introduction to the science of human powered vehicles (HPV) providing the background necessary for the design of such vehicles. Students will learn and utilize engineering design practices and apply them toward the creation of an aerodynamic, highly engineered land based HPV. Prerequisite: Consent of Instructor
- 424 Non-Metallic Engineering Materials (3).** Structures, properties and applications of ceramics, glasses, cermets, polymers and composite materials. Prerequisite: ME 324.
- 431 Experimental Methods In Fluid Flow & Heat Transfer (3).** Laboratory experiments involving fundamental mechanisms and phenomena associated with fluid flow and heat transfer. Current experimental methods and techniques employed. Prerequisites: ME 362 and ME 399.
- 440 Heating And Air Conditioning (3).** General principles of thermodynamics, heat transfer, and fluid dynamics are used to calculate building loads, size equipment and ducts, and evaluate system performance in maximizing human comfort. Consideration of indoor air quality and human health. Prerequisites: ME 360 and ME 399
- 441 Intermediate Fluid Mechanics (3).** Topics in potential and viscous flow theory, and computational fluid dynamics. Prerequisite: ME 351.
- 444 Composite Materials (3).** A survey of composite materials used in engineering, emphasizing fiber-reinforced composites as well as laminate and particulate composites. Prerequisite: ME 324.
- 447 Contracts And Law For Engineers (3).** Law of contracts, including types, construction, interpretation, performance, and termination. Construction and Engineering service contracts: Proposals, general and financial conditions, specifications and drawings. Corporate and professional and personal liability, insurance and bonds, property, evidence, arbitration and mediation. Offered: Fall
- 449 Environmental Compliance, Auditing & Permitting (3).** Statutes, regulations and permitting for air hazardous wastes and storage tanks. Asbestos, radon, EMF, and emerging areas of regulatory concern. Siting issues. Criminal and civil enforcement. Crosslisted as CE 449 Prerequisite: Junior standing within the degree program Offered: Winter
- 451 Power Plant Design (3).** Preliminary component and system design. Optimum design of boilers, steam turbines, condensers and cooling towers and their integration into a system to minimize production costs and impact on the environment. Prerequisites: ME 360 and ME 399.
- 452 Advanced Mechanics Of Materials (3).** Analysis of more complicated problems in stresses and strains. Prerequisite: CE 276.
- 453 Experimental Stress Analysis (3).** Photoelastic, electric strain gage, brittle lacquer methods of experimental stress analysis for static loads. Strain gage work includes strain rosettes. Prerequisite: CE 276.
- 454 Power Generation Systems (3).** Fundamentals of the power industry in a format suitable for all engineering disciplines. Survey of electric power systems, including fossil and nuclear steam cycles, combustion turbines, combines cycles, and renewable such as solar and wind. Introduction to major machinery components, systems, controls, and an overview of fuels, emissions, and emission control technologies. Offered: Winter
- 455 Digital Control Of Mechanical Systems (3).** Introduction to digital control systems. Topics include Z-transforms, sampling, stability analysis, and digital controller design. Prerequisites: ME 415 and MATH 345.
- 456WI Mechanical Component Design (3).** Introduction to mechanical engineering design and its impact on human history, principles of design with ductile and brittle materials for static and dynamic loading, classical and reliability-based factors of safety, fracture mechanics in design, application to the design of selected machine components. Prerequisites: ME 324, and ME 385
- 457 Microcomputer Control Of Mechanical Systems (3).** Synergistic combination of control, sensors, actuators, electronics, computers, and real-time programming. Actuator and computer fundamentals; logic devices; electronic components including transistors, operational amplifiers; and power amplifiers; interface design and control programming. Prerequisites: ME 362 and ME 415
- 458 Modern Control Systems (3).** Controller design for multiple-input/multiple-output systems; controllability and observability; stochastic control problems; regulators and tracking controllers; observers. Prerequisite: ME 415.
- 460 Electromechanical Conversion (3).** Magnetic circuitry in general and in machinery; DC machine theory, operation application; transformer circuits, synchronous machine theory, operation application: basic principles of energy conversion; use of matrices; basic principles of power transmission and control.
- 461 Electromechanical Conversion II (3).** Application of fundamental and concepts of power systems to practical power plant and industrial applications. Identification of the significant internal components of power system equipment: Single and Three Phase Circuits, DC and AC Generators/Alternators, Transformers, DC and AC Motors, DC and AC Transmission, and System Electrical Protection. Prerequisite: ME 460
- 466 Applied Optimization And Decision Modeling (3).** Introduction to mathematical programming techniques and applications. Linear and integer programming, transportation models, multiple objective and goal programming. Prerequisite: ME 306
- 476 Machine Tool Design (3).** Methodology of machine tool design. Dynamic modeling, analysis, synthesis, and simulation of machine tools to meet functional requirements and design constraints. Prerequisites: ME 285 and ME 306.
- 483 Manufacturing Automation (3).** This course covers fundamentals underlying contemporary manufacturing automation. The following two aspects of manufacturing automation will be emphasized: (1) computer based systems for automating and controlling manufacturing processes such as numerically controlled machining and material handling robots; and (2) use of software systems in facilitating information exchange between different components of manufacturing decision support systems. The course will be taught using a project-based learning approach. Prerequisites: ME 319 and ME 380
- 484 Vibration Analysis (3).** Vibration theory with application to mechanical systems. Prerequisites: ME 385
- 486 Introduction To Finite Element Methods (3).** The application of matrix operations, energy concepts and structural mechanics to the development of the finite element method. Application of finite element methods to beams, frames and trusses. Prerequisites: ME 306, ME 324, ME 385, ME 399
- 491 Internship (0-6).** For International students who must register for 1 credit hour to cover off-campus employment which is approved as related to their degree by their departmental advisor and ISAO.
- 495 Vehicle Dynamics (3).** Analysis and prediction of the dynamic behavior of ground vehicles utilizing computer simulation. Mechanics of various suspension systems, tire-roadway interaction, vehicle aerodynamics, vehicle handling and steering characteristics. Special topics including non-holonomic constraint formulation and stability of motion. Prerequisite: ME 385.
- 496WI Mechanical Design Synthesis (4).** Modern design theories and methodologies, with emphasis on the initial stages of the design process. Effect of design choices on the earth and living systems. Principles of embodiment design and life-cycle considerations. A comprehensive group design project is required. The course satisfies the Writing Intensive requirement. Prerequisite: ME 456WI
- 499 Intermediate Heat Transfer (3).** Advanced topics in conduction, convection and radiation heat transfer including transient heat transfer, phase change and heat exchangers. Prerequisites: ME 360 and ME 399

## Military Science Courses

- 100 Introduction To Military Operations (1).** Introduction into the areas of: leadership, role of the Army (to include the citizen soldier concept), organization of the Army, U.S. Constitution, customs and traditions of the service, and the role of the officer and NCO. Offered: Fall/Winter.
- 105 Introduction To Survival Skills And Rappelling (1).** Techniques for survival: Direction finding, basic land navigation, primitive fire starting, water purification. Basic rappelling and rope bridging, knot tying and rope management. All College of Arts and Sciences students who complete this course can receive physical education credit. Offered: Fall/Winter.
- 201 Introduction To Military Leadership And Communication (2).** Introduces students to duties of an officer, providing an overview of the unique purpose, roles and obligation of commissioned officers. It includes a detailed look at the origin of our institutional values and their practical application. Prerequisite: None Offered: None Restrictions: None
- 202 Military Leadership & Communication II (2).** This course focuses principally on officership, providing an extensive examination of the unique purpose, roles and obligations of commissioned officers. It provides an introduction to tactics and a detailed look at the origin of our institutional values and their practical application. Prerequisite: None Offered: Winter Restrictions: None
- 205 Reserve Officer Training Corps (3).** Five weeks of preparatory training at Fort Knox, Kentucky. Travel pay and salary stipend provided through Military Science Department. The student is not obligated to any military service as a result of attending Basic Camp. Camp graduates are eligible to enroll in advanced military science courses and may be considered for a

commission as a second lieutenant in the U. S. Army, Army Reserves or National Guard. Students are also eligible to compete for a full-tuition two-year scholarships. All College of Arts and Sciences students who complete this course can receive Physical Education credit.

**210 Map Reading And Land Navigation (1).** Introduction to map reading, terrain analysis, orienteering and day/night land navigation techniques and considerations. Includes several practical exercises in which students navigate with the use of a compass and terrain association. Prerequisite: None. Offered: Winter.

**220 Urban And Field Survival Skills (1).** Psychology of survival, preparedness; emergency water, food and shelter; fire starting; direction finding, water survival, Biological Terrorism and selected First Aid topics. All College of Arts and Sciences students who complete this course can receive physical education credit. Offered: Winter

**300 Leadership And Management I (3).** Investigates organizational leadership styles, effective managerial and leadership traits, and military ethics; includes a review of the military correspondence formats and writing techniques. Prerequisite: Advanced placement by ROTC instructor. Offered: Fall.

**310 Small Unit Leadership And Tactics (3).** Study of electronic communications and techniques. Advanced study is conducted in the areas of land navigation, branches and functions of the U.S. Army and selected military skills. Emphasis is placed upon preparation for advanced camp. Prerequisite: Advanced placement by ROTC instructor. Offered: Winter.

**400 Leadership And Management II (3).** Discussion and application of the principles of military organization and management. Includes the comprehensive study of executive decision making and communication and the Army Training Management System. Prerequisites: Completion of MS300 and MS310. Offered: Fall.

**410 Army Management And Organizational Systems (3).** Study of the Army Personnel Management System, the Uniform Code of Military Justice and the Army legal system; and selected topics in leadership management and decision making. Prerequisites: Completion of MS300 and MS310 or consent of the department chairperson. Offered: Winter.

**497 Leadership And Management Practicum - Directed Study (1-3).** Practical application in military problem analysis, decision making, planning and organization, delegation and control, and development of interpersonal skills required for effective management. Prerequisite: Instructor's approval. Offered: Summer.

## Nursing Courses

**101 Introduction To Nursing (2).** This introductory two-hour course is designed to facilitate role socialization into professional nursing. Beginning with a brief historical overview of professional nursing, nursing is defined and the philosophical and practice standards of the profession are discussed. The student explores nursing's image and power bases in relationship to professional accountabilities and roles. The value and tenets of inquiry-based practice are emphasized and integrated with use of nursing process in professional, reflective decision-making. A review of educational paths in professional nursing leads the student into a comprehensive survey of the multiple roles, responsibilities, and requisite skills of the professional nurse today and in the future. Prerequisites: None Offered: Winter/Summer/Fall

**120 Anatomy & Physiology I (4).** This introductory level course examines the structure and function of the human body from the molecular to the organismal level. The interaction between structure and function is stressed as well as the interaction among all body systems across the life span. Co-requisite laboratory exercises provide practical application of theoretical concepts. In this first term of a two term course, molecular biology, biochemistry, cellular biology and histology are studied as well as the integumentary, musculoskeletal, and nervous systems. Critical thinking and concept synthesis are emphasized on written and practical exams. Prerequisite: Pre-nursing students or consent of instructor Offered: Fall

**125 Medical Terminology (1).** This course is designed to introduce the student to medical terminology. The major foci of this course are to acquaint the student in how medical terms are formed; how medical terms are applied to organs, body systems and pathological conditions; how common medical abbreviations are used; and how medical terminology is integrated into the medical record. Prerequisite: None Restrictions: None Offered: Fall/Winter

**127 Drug Calculations (1).** The drug calculation course is designed to introduce the student to methods of drug dosage calculation needed for medication administration in the health care setting. This course will review basic mathematical concepts, introduce medication specific terminology, discuss interpretation of medication orders, identify key elements of the medication label and enable the student to calculate appropriate and accurate drug dosages utilizing three methods. Prerequisite: None Restrictions: None Offered: Fall/Winter

**132A Introduction To Holistic Health Care: Medicinal Plants and Herbs (1).** This course provides a hands on introduction to the practice of Holistic Health Care which promotes and preserves the health of clients by integrating traditional and non traditional healing modalities. Relevant to all health care providers and health care consumers, the content will cover medicinal plants and herbs and related topics.

**132B Introduction To Holistic Health Care: Energy Medicine (1).** This course provides an introduction to the practice of Holistic Health Care which promotes and preserves the health of clients by integrating traditional and nontraditional healing modalities. Relevant to all health care providers and health care consumers, the content will include Energy Medicine and related topics.

**132C Introduction To Holistic Health Care: Relaxation Techniques (1).** This course provides a hands on introduction to the practice of Holistic Health Care which promotes and preserves the health of clients by integrating traditional and non-traditional healing modalities. Relevant to all health care providers and health care consumers, the content will include Relaxation Techniques and related topics.

**132D Introduction to Holistic Health Care: Chinese Medicine and Hypnosis (0).** This course provides a hands on introduction to the practice of Holistic Health Care which promotes and preserves the health of clients by integrating traditional and non traditional healing modalities. Relevant to all health care providers and health care consumers, the content will include Chinese Medicine, Hypnosis and other related topics.

**134A Introduction To The History Of Nursing (1).** This course designed to give an introductory examination of the rich and unique development of nursing as a discipline, profession, art, and science from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history will be examined from ancient to modern times. Offered: Winter

**134B Introduction To The History Of Nursing (1).** This course is designed to give an introductory examination of the rich and unique development of nursing as a discipline, profession, art, and science from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history will be examined from ancient to modern times. offered: Winter

**134C Introduction To The History Of Nursing: 1930's to the 1950's (1).** This course is designed to give an introductory examination of the rich and unique development of nursing as a discipline, profession, art, and science from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history from the 1930's, Public Health Nursing, World War II, to 1950 will be examined.

**134D Introduction to the History of Nursing: 1950 to Future (1).** This course is designed to give an introductory examination of the rich and unique development of nursing as a discipline, profession, art, and science from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history from 1950 to the present and into the future will be examined.

**160 Anatomy And Physiology II (4).** This introductory level course is a continuation and extension of Anatomy and Physiology I. The interaction between structure and function continues to be stressed as well as the interaction among all body systems across the life span. Corequisite laboratory exercises provide practical application of theoretical concepts. In this second term of a two term course, physiologic systems including endocrine, cardiovascular respiratory, digestive, renal and reproductive are studied as embryology and genetics. Critical thinking and concept synthesis are emphasized on written and practical exams. Prerequisite: Nursing 120

**220 Fundamental Concepts & Skills (6).** This course focuses on fundamental concepts, skills and techniques that provide a foundation for more advanced areas of study. The beginning student will identify factors that may influence the human system and applies the nursing process in health care settings using basic nursing interventions. Four hours of lecture/discussion and six hours of clinical laboratory practice per week. Prerequisites: N101, N120, N160, CHEM115, CHEM115L,LSMICRO113 Offered: Fall Restrictions: Acceptance into Clinical Nursing, Concurrent with N250.

**230 Health Issues In Aging (3).** This course focuses on the role of the nurse in promoting and maintaining the health of the older adult population. In this course the student will discover that the wholistic care of the older adult based on physiological, psychological, pharmacological and nutritional considerations is affected by related theories, socio-cultural influences, legal and ethical considerations and available health care resources. Nursing assessment, diagnoses, evidence-based interventions and patient outcomes specific to this population will be discussed. Opportunities will be provided for



consultations, health teaching and collaboration with this population. Student will have opportunities to demonstrate self-direction as a learner through class participation and clinical performance. Prerequisite: Admission into the BSN Program Offered: Fall

**250 Health Assessment For Nursing Practice (3).** This course is designed to provide a systematic approach to the physiological, psychological, sociocultural, and developmental assessment of individuals emphasizing findings considered to be within normal limits. The health history is emphasized as a tool for assessing mental and physical status. This course is designed for the pre-licensure student. This course consists of three hours of supervised practice per week. Prerequisites: Acceptance into clinical nursing or permission of instructor. Offered: Fall

**252 Human Growth And Development (3).** This course provides a basic introduction to the theory and research basis for human growth and development across the lifespan. Emphasis is placed upon the biological and the psychosocial aspects of growth and development. Content is organized in a modified chronological order dividing information into major stages of growth and development across the lifespan. Prerequisite: None Restrictions: None Offered: Fall/Winter

**256 Pharmacology (3).** This is a course in pharmacology that builds on prior knowledge of anatomy, physiology, chemistry, microbiology and pathophysiology. The major focus of the course is the basic and clinical concepts of pharmacology in nursing practice. This course covers drug knowledge in the areas of pharmacotherapeutics, pharmacodynamics, pharmacokinetics, adverse reactions and contraindications, therapeutics indications and nursing implications. This course consists of three hours of discussion/in-class work per week. Supplemental information and case studies will be available in a variety of methods. Requisites/Prerequisites: N220, N250, N395 Offered: Winter Restrictions: Minimum grade of C in all major courses.

**262 Management Of Adult Health I (5).** This course focuses on application of the nursing process to the specific illnesses of the adult client. The effects on the individual as a holistic system are explored. Skills are developed in caring for persons with biological, psychological and social system alterations to improve the individual's health status. This course is the first of two adult health courses. Three credit hours of theory and two credit hours of clinical practice is required. Prerequisites: N220, N230, N250, N395. Health Issues in Aging Co-requisite: N256 Restrictions: Minimum grade of C in all major courses. Offered: Winter/Spring

**342 Legal & Ethical Issues (2).** This course is designed to investigate medical-legal issues and explore the implications that legal intervention and interpretation as well as litigation have on the scope of nursing practice and the delivery of patient care. It allows the student an opportunity to learn about ethical decision making with the introduction of various ethical systems, concepts, and principles explored. Two hours of lecture/discussion per week. Prerequisites: Admission to the Nursing Major or BSN Completion Program Restrictions: Minimum grade of C in all major courses. Offered: Fall

**345 Quantitative Analysis In The Health Sciences (3).** This course focuses upon the conceptual basis of descriptive and inferential statistics found in the properties of the normal distribution. Using the normal distribution as a structure for understanding descriptive and inferential procedures, the course presents information necessary to the selection, computation and interpretation of basic statistics. Discussion of variables, measurement and tabular and graphic presentation of data precede the development of computation skills. This course consists of three hours of lecture/discussion per week. Offered: Fall & Winter. Restrictions: Nursing major or consent of instructor.

**346 Women's Health in the Community (2-3).** This two credit hour undergraduate elective course will introduce students to the social and personal concerns of women. The class will meet a two hour session once a week. Arrangements are possible for students to take the class for three credit hours with permission of the instructor;

**356 Applied Spanish For Healthcare Providers (3).** This course will focus on conversational Spanish, medical terminology in Spanish and written/read Spanish. This course will provide the student with basic knowledge that will allow basic communication with patients who speak/read/write Spanish. This is a fast paced course and will require practice of the language outside of the classroom in order to master the material presented. Prerequisite: Permission of Instructor Offered: All Semesters

**359 Introduction To International Health Care (2-3).** This course is designed to introduce students to the health care issues found in other countries with a focus on low-and middle-income countries. Students will study philosophical, system and cultural aspects of health care and will be expected to compare health care in the United States with other nations. Core concepts include-globalization; health care reform; organization and management of health systems; community, public and primary health care; humanitarian assistance and refugee health; international nutrition; vaccine development and policy; disease prevention and control; and social and behavioral interventions. Each year course faculty will choose 1-2 countries outside of the United States

for in-depth study. Students wishing to earn 3 credits will travel to this country and learn about the health issues through observations and participation. Prerequisites: At least second year student in the UMKC School of Nursing or permission of instructor. Offered: Winter

**360 Management Of Mental Health (4).** This is designed to introduce the student to psychiatric mental health nursing through the study of sound psychiatric nursing theory, therapeutic modalities and clinical applications across the treatment continuum and the lifespan. This course will focus on the dynamics of the nursing process framework, the establishment and maintenance of a therapeutic nurse-patient relationship and the dignity of each person. Emphasis will be placed on assessment, therapeutic communication, neurobiological theory, pharmacology and the individual as a whole person. Nursing interventions will focus on all aspects of patient care, communications, patient/family teaching, and community resources and their practical applications in a variety of clinical settings. Content will be arranged around the major categories identified in the DSM-IV-TR and current social and emotional concerns including mental health settings, e.g. grief and loss, anger and aggression, abuse and violence. Prerequisites: N364, N366 Restrictions: Minimum grade of C in all major courses Offered: Fall/Winter

**362 Management Of Adult Health II (5).** This course focuses on utilization of the nursing process to deliver and manage care of adult client with specific illnesses. Client with specific biological, psychological and social system alterations will be assisted to move to a higher level of health/wellness through use of referral, communication, collaboration, critical thinking and health care technology. In this second of two courses, care of clients with problems of the immune, cardiovascular, nervous, and sensory system will be studied. In addition, the biopsychosocial concepts of rehabilitation, pain, and end of life care will also be covered. Six hours of lecture discussion and 16 hours of clinical practice per week will be required over 8 weeks. Prerequisites: N342, N364, N366 Restrictions: Minimum grade of C in all major courses. Offered: Winter

**364 Management Of Maternal & Family Health (4).** This course focuses on the application of the nursing process in the adaption of the childbearing family. Emphasis is placed on adaption during pregnancy, labor, birth and postpartum period. Key concepts to be addressed include maternal, fetal, neonatal and family adaption throughout the maternity cycle, common alterations during the cycle and culturally sensitive, family-centered nursing care. Maternal, fetal and neonatal physiology, pathophysiology and pharmacology will be addressed. Two credit hours didactic and two credit hours for clinical practice (120 clinical hours) are required. Prerequisites: Successful Completion of N262, including all prerequisites and co-requisites. Restrictions: Minimum grade of C in all major courses. Offered: Fall/Winter

**366 Management Of Child & Adolescent Health (4).** This course focuses on the application of the nursing process in the care of the pediatric client. Emphasis is placed on providing development appropriate care to healthy, acutely ill and chronically ill pediatric clients holistically within the context of a family system. Key concepts to be explored include age appropriate anatomy, physiology, pathophysiology, and pharmacology and their application to the nursing strategies of health assessment, health promotion, disease prevention, pain management, family centered and culturally sensitive care. Two credit hours for didactic and two credit hours for clinical practice (120 clinical hours) are required. Prerequisites: Successful completion of N262 including all pre-requisites and co-requisites. Offered: Fall

**395 Pathophysiology (3).** This course will focus on alterations in biologic processes that affect the body's internal homeostasis. A conceptual approach will be used to emphasize general principles of pathophysiology. The etiology, pathogenesis, clinical manifestations, and sequelae of various alterations of human structure and function will be examined. Knowledge from the basic and clinical sciences will be integrated. Prerequisites: Admission to the Nursing major or special permission from instructor Restrictions: Minimum grade of "C" in all major courses while maintaining an overall semester GPA of 2.75

**398 Clinical Applications Of Pathophysiology (2).** This nursing elective is designed to guide students through self-directed and in-depth analysis of selected diagnoses that are common to clinical practice and represent major concepts of pathophysiology, evaluation, and management that can be applied to many other illnesses. With faculty guidance, students will work in small groups to comprehensively review and analyze a selected clinical case for presentation and discussion with peers. One case from each of the following major body systems will be presented by student groups: cardiovascular pulmonary, cancer, endocrine, hematologic, immunologic, digestive, neurological, musculoskeletal, and genitourinary. Students are expected to attend and actively participate in all of the case presentations through completion of assigned readings, preparatory review of current literature, active listening, and comprehensive peer evaluation. Students will present and facilitate discussion within the large group of selected current literature following each case presentation. Prerequisite: 200 level Nursing courses; N395 Pathophysiology Offered: Varies

**401 Health Assessment For Clinical Practice (3).** This course is designed to provide a systematic approach to the physiological, psychological, socio-cultural and developmental assessment of individuals emphasizing findings considered to be within normal limits. The health history is emphasized as a tool for assessing mental and physical status. This course is designed for students with previous health care education, including knowledge of biochemical functions of systems and concepts of normal. This course consists of guided self-study and on-site clinical practicum. Prerequisites or CO-requisite: Admitted into RN-BSN program or permission of instructor. Offered: Fall/Spring

**430A Experience Of Health In Aging: Physiological & Cognitive Aspects (1).** This one-credit hour course is designed for students interested in understanding the role of health in the aging population. The 430A course will focus primarily on physiologic and cognitive functioning of the older adult. Theoretical, empirical and applied knowledge of the aging process is presented. This knowledge is utilized in assessing and interpreting the physiological and psychological influences on health. This knowledge may also be used in developing strategies for the promotion, restoration, and maintenance of health in the aging population. Offered: Winter

**430B The Experience Of Health In Aging: Relationships & The Environment (1).** This one-credit hour course is designed for students interested in understanding the role of health, relationships in the aging population. The N430B course will focus primarily on loss/grief and relationships environment and as these relate to the older adult. Theoretical, empirical and applied knowledge of the aging process is presented. This knowledge is utilized in assessing and interpreting the influences of relationships, intimacy, loss, grief, and dying on health. This knowledge may also be used in developing strategies for the promotion, restoration, and maintenance of health in the aging population. Offered: Winter

**430C The Experience Hlth In Aging: Community, Systems & Service Delivery (1).** This one-credit hour course is designed for students interested in understanding the role of health, community, systems and service delivery in the aging population. Selected special issues (such as fluid and continence, medication use, pain and comfort, bone/joint problems) will also be discussed. The N430C course will focus primarily on community, health systems and service delivery as these relate to the older adult. Theoretical, empirical and applied knowledge on aging and the health system and delivery process is presented. This knowledge is utilized in assessing and interpreting the influences of the community and health care delivery systems on health. This knowledge may also be used in developing strategies for the promotion, restoration, and maintenance of health in the aging population.

**432A Holistic Health Care: Medicinal Plants & Herbs (1).** This course provides a hands-on and in-depth exploration to the practice of Holistic Health Care which promotes and preserves the health of client by integrating traditional and non-traditional healing modalities. Relevant to all health care providers and health care consumers, the content will cover medicinal plants and herbs and related topics. Prerequisite: None Offered: Fall

**432B Holistic Health Care: Energy Medicine (1).** This course provides a hands-on in-depth exploration to the practice of Holistic Health Care which promotes and preserves the health of client by integrating traditional and non-traditional healing modalities. Relevant to all health care providers and health care consumers, the content will include Energy Medicine and related topics.

**432C Holistic Health Care: Relaxation Techniques (1).** This course provides a hands-on and in-depth exploration to the practice of Holistic Health Care which promotes and preserves the health of client by integrating traditional and non-traditional healing modalities. Relevant to all health care providers and health care consumers, the content will include Relaxation Techniques and related topics. Prerequisite: None Offered: Fall

**432D Holistic Health Care: Chinese Medicine and Hypnosis (1).** This course provides a hands on introduction to the practice of Holistic Health Care which promotes and preserves the health of clients by integrating traditional and non traditional healing modalities. Relevant to all health care providers and health care consumers, the content will include Chinese Medicine, Hypnosis and other related topics.

**433 Parish Nurse Health Ministry Basic Preparation Course (3).** This course introduces students to the practice of Parish Nurse Health Ministry which promotes and preserves the health of clients in community faith-based settings. Content will include the role of the congregation in health, healing, and wholeness; the theology of health, healing and wholeness, history and philosophy of Parish Nursing, ethics of Parish Nursing; self care for Parish Nurses; assessment of individuals, families, and congregations; accountability and documentation, roles of the Parish Nurse-Integrator of faith and health, Personal Health Counselor, Health Educator, Referral Agent, Coordinator of Volunteers, Developer of Support Groups, and Health Advocate initiating a Parish Nurse Program; functioning with a ministerial team; health promotion and maintenance programs; and loss. 32 classroom hours; 13 independent library hrs. Prerequisite: RN license Offered: Winter/Fall

**434A History Of Nursing (1).** This course is designed to examine the rich and unique development of nursing as a discipline and profession, from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history will be examined. Offered: Fall/Winter

**434B History Of Nursing (1).** This course is designed to examine the rich and unique development of nursing as a discipline and profession, from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history will be examined. Offered: Fall/Winter

**434C History Of Nursing: 1930's to 1950's (1).** This course is designed to examine, in depth, the rich and unique development of nursing as a discipline, profession, art and science from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical, and political forces which have impacted the course of nursing history from the 1930's, Public Health Nursing, World War II, to 1950 will be examined. Offered: Spring

**434D History of Nursing: 1950 to Future (1).** This course is designed to examine, in depth, the rich and unique development of nursing as a discipline, profession, art, and science from a historical perspective. Past and present nursing issues will be identified and discussed. The social, philosophical and political forces which have impacted the course of nursing history from 1950 to the present and into the future will be examined. Offered: Spring

**450 Introduction To Computers In The Health Care System (3).** This three-credit course will provide the student an opportunity to understand the basic characteristics common to computer hardware, software, and human input, and become proficient in the use of selected software, the Internet, and bibliographic databases. Students will also examine how computer technology is being deployed in health care and will explore the role of nurses/other health care professional in contributing to information systems. Students will have hands-on experience with microcomputers, evaluate selected software, use basic word processing, spreadsheet, presentation, and database software, and utilize the World Wide Web for accessing information and e-mail. Current and future computer application needs for health care systems will be discussed. Prerequisite: Entry level preparation in a health care discipline and permission of instructor.

**462 Special Topics In Health Care (2).** This course is designed to critically explore current issues and trends influencing nursing practice. A professional practice model is used as a framework for analyses and integration of economic, political, social, and cultural issues as they relate to interdisciplinary healthcare. Prerequisites: Successful completion of all 300 level Nursing coursework. Offered: Winter

**465 Management Of Community Health Nursing (4).** This course focuses on population as the nurse's client. Emphasis is placed in health promotion and disease prevention of a population. Discussion will include epidemiological, social, political, economic and cultural factors that influence the health of a population. The clinical component will consist of application of the nursing process to identify, prioritize, and meet the health needs of aggregates across the lifespan. Prerequisites: N362; N360 Restrictions: Minimum grade of C in all major courses. Offered: Winter/Spring

**467 Management Of Critical & Emergent Care (5).** This course focuses on applying the nursing process to the care of critically ill adults. Emphasis is placed on the interaction between the critically ill patient, his or her family, nursing and the environment to result in optimal age appropriate outcomes. A key concept to be addressed is the assimilation and prioritization of information to take immediate and decisive patient-focused action. Students will appropriately manage the interface between patient and technology so that a safe, respectful, caring and culturally sensitive environment is established and maintained. Nursing knowledge of cardiovascular/hemodynamic monitoring and acute management of pulmonary, neurological, renal, gastrointestinal, shock and traumatic emergencies will be addressed. Course ratio: 3 hours theory/2 hours clinical. Prerequisite: Successful completion of all 300 level nursing courses. Restrictions: Minimum grade of C in all major courses Offered: Fall

**468 Effectiveness In Complex Health Systems (5).** Within this five-credit hour course, the student will discover that effectiveness in complex health system builds upon acquired personal and interpersonal knowledge and skills, and upon effectiveness in human health outcomes. Effectiveness in complex health systems is contingent on an understanding of organizational culture and theories, systems theory, leadership and management theories, internal and external politics, the impact of future managerial and societal paradigm changes on health care, and health care delivery systems. Effectiveness in complex health systems is enhanced through the use of such skills as budgeting and health care finance, use of the legislative system, quality management, and leadership and management styles. Content appropriate to these areas will be covered within this course. Prerequisites: N465 and N467 Offered: Winter

**472 Clinical Internship (5).** This is the final clinical application course designed to complement didactic content from the core-nursing component of

the baccalaureate program. Within this course the student will integrate and apply knowledge acquired in didactic course work and from previous clinical experiences. Students will integrate an increasingly complex knowledge base with an emphasis on developing effectiveness: a) personally; b) interpersonally, and c) in the health management of clients within the complexity of the hospital system. In collaboration with preceptors from the clinical unit, the students will manage direct care for clients in the hospital setting. This course consists of a total of 300 clinical hours. Prerequisites: N465 and N467 Co-requisite: N468 Offered: Winter

**476 Scientific Inquiry (3).** This course focuses upon the development of those skills necessary to apply research finding to the evidence-based practice of nursing. This application requires that students develop the skills to intelligently and critically read and utilize current research literature. The specific steps in the research process. Including ethical issues, are presented and discussed with emphasis upon the identification of quality research through critical analysis of research reports. This course consists of three hours of lecture/discussion per week. Prerequisite: Pre-licensure students: Completion of 14 hours of clinical coursework, e.g. N262, N364, N366 CO-Req: N345 or equivalent Offered: Winter

**481 Block I: Tools For Personal Effectiveness (6).** This six-credit course is the first course in the four-course sequence within the core-nursing component of the baccalaureate program. Within this course the student will discover that the foundation for professional nursing practice is personal effectiveness. Personal effectiveness is contingent upon an understanding of the historical roots of the profession, the meaning of professionalism, image and power bases, professional standards, moral development, political role socialization, and professional values. Personal effectiveness is enhanced through valuing and use of theory and research, critical thinking and decision-making, the ability to manage time and stress, and the use of a career plan and informatics. Content appropriate to these areas will be covered within this course. Prerequisites: English Comp. II, Offered: Fall

**482 Block II: Tools For Interpersonal Effectiveness (6).** This six-hour course is the second course in the four-course sequence within the core-nursing component of the baccalaureate program. Within this course the student will discover that interpersonal effectiveness is a prerequisite to effective management of the care of humans and of teams. Interpersonal effectiveness is contingent on an understanding of ethics in health care, legalities of practice, communication theories, and the dynamics of groups and teams. Interpersonal effectiveness is enhanced through the use of such skills as conflict resolution and negotiation, delegation, managing change marketing, team membership, group management, and communication techniques. Content appropriate to these areas will be covered within this course. Prerequisites: N481 Block I Offered: Fall

**483 Block III: Effectiveness In Human Health Outcomes (6).** This six-credit hour course is the third course in the four-course sequence within the core-nursing component of the baccalaureate program. Within this course the student will discover that effectiveness in human health outcomes builds upon acquired personal and interpersonal skills, and is prerequisite to effectiveness in complex health systems. Effectiveness in human health outcomes is a primary goal for health care delivery across a continuum including health promotion, disease prevention, and illness care. The focus of this course will expand beyond health and disease management at the individual level to health and disease management at the community or aggregate level, including assessment, planning, program development, implementation, and evaluation of effectiveness of outcomes. Gaining effectiveness in human health outcomes across the well-illness continuum and across the individual-to-community continuum is contingent on an understanding of public health and community-based care, epidemiology, theories applying to aggregates within their environment, disease management, cultural competence, and case management. Content appropriate to these areas will be covered within this course. Prerequisites: N482 Offered: Winter

**484 Block IV: Effectiveness In Complex Health Systems (6).** This six-credit hour course is the fourth in the four-course sequence within the core-nursing component of the baccalaureate program. Within this course the student will discover that effectiveness in complex health systems builds upon acquired personal and interpersonal knowledge and skills, and upon effectiveness in human health outcomes. Effectiveness in complex health systems is contingent on an understanding of organizational culture and theories, systems theory, leadership and management theories, internal and external politics, the impact of future managerial and societal paradigm changes on health care, and health care delivery systems. Effectiveness in complex health systems is enhanced through the use of such skills as budget and health care finance, use of the legislative system, quality management, and leadership and management styles. Content appropriate to these areas will be covered within this course. Prerequisites: N483 Block III Offered: Winter

**485 Application To Practice (3).** This course is the first of two clinical application courses designed to complement didactic content from the four-course block sequence (N481-N484) within the core-nursing component of the baccalaureate program. Within this course the student will discover that

the knowledge they are acquiring in didactic course work can be immediately applied to practice. Working in cohort teams, the students will progress through the first three phases of teamwork as they practice community and organizational assessment, problem identification, action planning, and start implementing their action plan as new skills and knowledge are applied to real issues and problems in the delivery of nursing care. The students will integrate an increasingly complex knowledge base with an emphasis on developing effectiveness: a) personally; b) interpersonally; and c) in the health management of populations of clients within the complexity of community based organizations, practice settings, and communities. Student cohort groups-in collaboration with preceptors from community based organizations and faculty - identify field experiences, projects and direct care experiences based on real need. The processes and outcomes of those experiences will be collective and provide solutions for the health care community. Projects and experiences may therefore be complex, extending across two semesters. Prerequisites/Corequisites: N481, N482, N483 Offered: Fall

**486 Application To Practice (2).** This course is the second of two clinical application courses designed to complement didactic content from the four-course block sequence (N481-N484) within the core-nursing component of the baccalaureate program. Within this course the student will discover that the knowledge they are acquiring in didactic course work can be immediately applied to practice. Working in cohort teams, the students will practice the application of new skills and knowledge to real issues and problems in the delivery of nursing care with an emphasis on teamwork performance and action plan implementation, evaluation, and revision. The students will integrate an increasingly complex knowledge base with an emphasis on developing effectiveness: a) personally; b) interpersonally; and c) in the health management of populations of clients within the complexity of community based organizations, practice settings, and communities. Student cohort groups-in collaboration with preceptors from community based organizations and faculty- identify field experiences, projects and direct care experiences based on real need. The processes and outcomes of those experiences will be collective and provide solutions for the health care community. Projects and experiences may therefore be complex, extending across two semesters. Credit Hours 2 to 3 Prerequisites/Co-requisites: N483, N485 CO-Req: N484 Offered: Winter

**487 Writing For Nursing Sciences (1).** This course is a companion course to the core nursing component of the baccalaureate program. Within this course the student will discover that good writing is essential in the nursing profession for effectively transmitting nursing practice and professional and academic dialogue. Regardless of whether the writing is on a patient's chart, in a grant proposal, or a formal presentation, professional writing must be clear, precise, logical, and appropriate to the situation. The art and process of writing is complex and can only be learned by practicing writing. Content appropriate to the enhancement of professional writing skills will be covered within this class. Students will examine writing processes, learn to find and use resources for writing, write and present several types of papers for nursing. Prerequisites: Concurrent enrollment in N484 Offered: Winter

**490 Special Topics (1-9).** A course of study in a special area of interest in nursing under individual faculty direction. Prerequisite: Consent of instructor.

**490BA Special Topics (1-9).**

**490BB Special Topics (1-9).**

**490BC Special Topics (1-9).**

**490H1 Special Topics Nursing (1-9).**

**490H4 Special Topics Nursing (1-9).**

**490WV Special Topics (1-9).**

## Oboe Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury performance is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Oboe I (2-4).**

**102 Freshman Oboe II (2-4).**

- 201 Sophomore Oboe I (2-4).**  
**202 Sophomore Oboe II (2-4).**  
**301 Junior Oboe I (2-4).**  
**302 Junior Oboe II (2-4).**  
**401 Senior Oboe I (2-4).**  
**402 Senior Oboe II (2-4).**

## Organ Courses

- 100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.
- 100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.
- 100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.
- 100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.
- 101 Freshman Organ I (2-4).**  
**102 Freshman Organ II (2-4).**  
**201 Sophomore Organ I (2-4).**  
**202 Sophomore Organ II (2-4).**  
**301 Junior Organ I (2-4).**  
**302 Junior Organ II (2-4).**  
**401 Senior Organ I (2-4).**  
**402 Senior Organ II (2-4).**

## PACE - American Studies Courses

- 301P American Studies:Is/Tutorial:Themes In The American Popular Arts (4).** This course uses the popular arts as an entree to the examination of stereotypes in American life, to a better understanding of challenges to tradition, and to assessing the consequences of conflict that have resulted from cultural pluralism. This is a modified independent study course. Students are exposed to some of America's best-known literature, films and music. Instructional audio tapes and traditional literature about American Culture show the relevance of examples of popular art to broader themes. Prerequisites: Concurrent enrollment in American Studies 302P and 303PW. Offered: On demand.
- 302P Survey Of American Studies (4).** This course offers a look at changes and continuities in American life from the era of British colonization to the present. It emphasizes philosophical, scientific and creative ideas that have had lasting effects, changing social structure, the factors that determine lifestyle, and the consequences of the national preoccupation with pluralism and consensus. The course also covers the main features of American political history. Prerequisite: Concurrent enrollment in American Studies 303PW. Offered: On demand.
- 303PW Methods & Problems In American Studies (4).** This course examines four topics that are important in American culture; each topic is approached from a different methodological perspective. The topics (problems) are related to cultural resources in the Kansas City area (such as a museum exhibit or a library research collection) and may change from semester to semester. Methods of problem solving are determined by the topic; however, students should expect to participate in oral history, interpretation of material culture, and traditional archival research and document analysis. Prerequisite: Concurrent enrollment in American Studies 302P. Offered: On demand.
- 340P American Material Culture: The 20th Century (4).** This course will focus on the material culture of modern and post-modern America. This is an area of inquiry particularly well-suited to the examination of material culture resources. Students will be required to write a term paper or do a material culture project. Offered: Fall
- 340PP American Material Culture: The 1950s (4).** This course will focus on the period of American culture from demobilization after World War II to the end of the 1950s—an era particularly well-suited to employing material culture resources as evidence. Students will be required to write a term paper or do a material culture project.

**341P American Material Culture: Objects And Images (4).** This course will examine American cultural and social history from earliest times to present, with a special emphasis on the ways artifacts and visual images can provide information and insight about the American experience.

**342P American Material Culture: Museums (4).** This course will focus on local institutions that use material culture in their presentation of history and the American experience.

**410P The American Conception Of Evil: Historical And Cultural Contexts (3).** This interdisciplinary course may focus on time periods in American history where the concept of evil has played a crucial role in determining public attitudes and policy, as well as the Western European roots of those attitudes. The course may focus on several broad time periods and topics: Western Europe before Columbus and during the initial years of contact between Europeans and Native Americans; Puritan New England, including the Salem witch trials; indentured servitude and slavery among Africans and other racial minorities; the Progressive Era; World War II, especially the experiences of American liberators of the concentration camps, the Japanese American internment experience, and the decision to use the atomic bomb; and Post WWII, especially the Cold War, the Vietnam War, 9/11, and contemporary hate groups.

**411P The American Conception Of Evil: Readings In Primary Sources (3).** This interdisciplinary course is a companion to American Studies 410P and may focus on understanding documents from the listed time periods in light of their original contexts, as well as developing an understanding of the roots of contemporary definitions of evil. Selections may include Puritan captivity narratives, diary entries, sermons, fiction, poetry, oral histories, WPA interviews with former slaves, films, television shows, and other appropriate materials.

## PACE - Art and Art History Courses

**101P Topical Studies (3).**

## PACE - Arts and Sciences Courses

- 170 Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings.
- 170C Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings.
- 280A Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings.
- 280P Special Topics (1-4).** An undergraduate course designed to deal with a topic which is not available in the regular course offerings.
- 365P Introduction To Substance Abuse Counseling: Theory And Practice (3).** This course will introduce the student to the problems of substance abuse and the methods/techniques used in treatment. The course will explore theories of personality and belief systems of the chemically dependent or alcoholic individual. The course will also review the impact of the disease on the family system
- 400A Special Readings/Topics (1-6).**  
**400D Special Readings/Topics (1-6).**  
**400F Special Readings/Topics (1-6).**  
**400G Special Readings/Topics (1-3).**  
**400I Special Topics (1-6).**  
**400K Special Readings/Topics (1-3).**  
**400RR Special Readings/Topics (1-3).**  
**400SS Special Readings/Topics (1-3).**

## PACE - Chemistry Courses

- 180P Basic Chemistry (4).** A one-semester survey of basic chemistry including: atomic structure, the periodic table, chemical bonding, chemical reactions, and selected topics from organic, polymer and biochemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course. Corequisite: Chemistry 181P. Prerequisite: College Algebra or equivalent. This course is equivalent to Chemistry 115.
- 181P Experimental Basic Chemistry (4).** A demonstration/laboratory course designed to support and illustrate the concepts presented in Chemistry 180P. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course. Corequisite: Chemistry 180P. Prerequisite: College Algebra or equivalent. This course is equivalent to Chemistry 115L.
- 182P Special Projects In Chemistry (4).** An independent study course consisting of library work and field work designed to exemplify various applied aspects of chemistry. A terminal course that does not meet requirements as a prerequisite for any higher level chemistry course. Corequisite: Chemistry 180P. Prerequisite: College Algebra or equivalent.

## PACE - Communication and Information Technology Courses

**105P Foundations Of Computing And Problem Solving (4).** This course covers the fundamentals of computer use, problem solving, and programming. Specific topics include: the general use of micro and mainframe computers, algorithm design, the relation of algorithms to programs, the fundamentals of programming in the PASCAL language, and program debugging techniques. This course is presented only in a PACE program format. Prerequisite: Co-enrollment in Math 110.

**106P Computers: Their Uses And Impact (4).** This course covers the history of computing, concepts in and classes of computer hardware and software, classes of computer application, economic issues in the development of computer hardware and software products, and philosophical, social and legal issues in the use (and abuse) of computer technology. This course is presented only in a PACE program format.

**310P Web Design & Development (3).** This three hour course, Web Design and Development, is designed to introduce the student to the Hyper Text Markup Language (HTML) and its use for the development of web pages. This course is offered online and no scheduled classroom attendance will be required. Correspondence through emails and the class forum is strongly encouraged. Prerequisite: Comp Sci 105p or consent of instructor.

**315P Web Graphics & Multimedia (3).** This three hour course, Web Graphics and Multimedia, is a continuation to Web Design and Development. The course material will cover different development tools used to incorporate graphics, sounds, and videos into web pages. This course is offered online and no scheduled classroom attendance will be required. Correspondence through emails and the class forum is required. Prerequisite: Com Sci 105p or consent of instructor.

**420P Cgi Perl (3).** CGI Perl teaches CGI scripting techniques using the CGI.pm Perl module. Students learn how to create on-demand, server-based HTML, write and process fill-out forms; write responses to form submissions back to the client browser; store and process cookies; handle file uploads securely; create, read, and write to text databases. Students also explore CGI Perl's role in server push technology and continuous page updating. Students are not required to have previous Perl programming experience, although a through knowledge of HTML is necessary. Prerequisite: Comp Sci IT222p or consent of instructor.

## PACE - Communication Studies Courses

**254P Communication Competence: Theory And Practice (4).** An introduction to the discipline of communication. A core set of issues is investigated in three major areas of the field: interpersonal communication, small group communication and public speaking. The course design is based on the premise that the development of communication skills involves two important factors: (1) understanding the theoretical principles underlying effective communication behavior and (2) practical application of those principles in various communicative exercises. Offered: Summer.

**260P Introduction To Web Communications (4).** This four credit hour web-based multimedia course will examine the process of critically evaluating information delivered on the Internet. It is designed as an introduction for adults and students who use Internet information for work and/or school. The process of critically evaluating Internet information will be described in four modules: traditional evaluation techniques; searching and researching strategies; Internet evaluation techniques and Internet evaluation resources.

**345P Communication In Organizational Settings (3).** An examination of the major elements of interpersonal, group, and oral communication competence essential to human interaction in organizational settings. The course focuses on developing communication competencies and increasing theoretical understanding of the communication process within the organizational context. prerequisite(s): None.

**361 Broadcast Management (3).** An analysis of the trends, patterns and methods of radio and television operations. Prerequisite: COMS 308. Offered: On demand.

**421P Multimedia & New Media Streaming (3).** This course is designed to teach students the technology of streaming multimedia on the web and analyze the components of interactivity on the web. Students will examine the process of streaming, as well as the various advantages and disadvantages of streaming. Students will study the hardware, software, and technology involved in the different types of streaming media. Prerequisites: CS100/CS105P or equivalent is recommended.

**422P New Media Writing For The Web (3).** This course is designed to teach students new media writing and the technology of reporting for online publications. Students will analyze the components of online writing, including the design, creation, and transfer of online digital media. Students will be introduced to digital formats and production tools. Students will examine the technology of writing for the web and the particular needs of new

media writing for users of the web, techniques to transfer writing electronically, and how to use resources on the web for online reporters. Prerequisites: CS100/CS105P or equivalent is recommended.

**423P Shooting Digital Video For The Web And New Media (3).** This course is designed to teach students the fundamental concepts of digital video, with special consideration given to shooting the new media and the web. Students will learn the process of digital video, the types of file formats, technical considerations of displaying video on the web, and technical features of the digital video camera. This class will enable students to maximize the use of video in various new media digital formats (CD-ROM, DVD, etc.), as well as its use on the web. Prerequisites: CS100/CS105P or equivalent is recommended.

**424P Web Radio (3).** This course is designed to teach students the technology and underlying concepts in producing Web radio. A general overview of radio techniques and historical context, as well as practical and technical information will be given. Legal and copyright implications of making Web radio will be reviewed. Prerequisites: CS100/CS105P or equivalent is recommended.

**456 Electronic Journalism (3).** A practical approach to the practices and principles of broadcasting news media, including preparing copy for microphone and camera, editing wire copy, reporting public affairs and public relations, and an intensive scrutiny of the concepts of freedom and responsibility as they apply to the press and current legislation. Prerequisite: Communication Studies 351. Fall and winter.

## PACE - Criminal Justice and Criminology Courses

**265P Juvenile Justice System (3).** A survey of the legal aspects of the juvenile justice system in America dealing with the history, philosophy, jurisprudence and treatment of delinquents, and neglected, abused, dependent and adoptive children. Pace class to meet one night a week from 6:00-10:00 p.m. and one weekend: Fri E6:00-10:00; Sat 8:00-5:00; Sun 1:00-5:30 for eight weeks in either fall or winter semester. Part of PACE Block – Juvenile Justice and the Family.

**353 Ethical And Controversial Issues In Policing (3).** This course covers various ethical and controversial issues confronting law enforcement agencies and examines ethical dilemmas involved in police decision-making with an emphasis on current controversial issues. Topics to be addressed include police misconduct; stop and frisk practices; search and seizure; racial profiling; use of excessive and deadly force; and vehicle pursuits.

**475P White Collar Crime (3).** This course examines activities variously called white-collar crimes, crimes of privilege, corporate and government crimes, and upperworld crimes. The purpose of the course are (1) to describe, analyze, and assess social impact of these offenses, (2) to examine the capacity of existing theories in criminology and social deviance to account for those activities, (3) to describe the responsibilities, powers, and activities of those agencies which have jurisdiction over them, and (4) to assess the effectiveness of various legal sanctions in controlling such activities and to review the problems involved in legislation intended to achieve that control. Part of PACE Block –Justice and Society. PACE class to meet one night a week from 6:00-10:00 p.m. and one weekend: Fri. E6:00-10:00; Sat 8:00-5:00; Sun 1:00-5:30 for eight weeks in either fall or winter semester.

## PACE - Economics Courses

**201P Introduction To Economics I (3).** Economics I deals primarily with macroeconomic or national economic concepts, the economics of the determination of recession, inflation, maintenance of full employment and economic growth, with an emphasis upon the economics of modern Keynesian analyses. It further introduces the economics of Marx and Ayres and discusses relevant and current economic issues. Economics 201 and 202 are prerequisites for all other economics courses except with specific permission of the instructor. Every semester.

**202P Introduction To Economics II (3).** Economics II deals primarily with microeconomics, firm analysis, the principles of demand, supply, elasticity, price determination, costs, income distribution, market structures, trade, and other related social, economic issues. Economics 201, 202 are prerequisites for all other economics courses except with specific permission of the instructor. Every semester.

**204P Principles Of Economics (5).** The course will combine macro and micro principles of economics. Credit will not be given for both macro (ECON 201 and ECON 204) or for both micro (ECON 202 and ECON 204) towards a degree. The course will be offered over two nights a week (2 1/2 hr/class) and two weekends. Offered: Summer.

**301P Macroeconomic Analysis (3).** The economic system as a whole and the ways in which its functioning is affected by the behavior of the interdependent sectors of which it is composed. Major factors affecting national income; use of sectoral accounts in analyzing general economic prospects.

**302P Microeconomic Analysis (3).** Functioning of the individual enterprise and households. Problems confronting business enterprises operating under different types of market situations; influence of the prices factors of production on methods of production; effects that changes in income levels and in relative prices have on sales of different types of goods and services. Every semester.

**331P Money And Banking (3).** A study of the structure, operations and problems of banks and other financial institutions with emphasis on their macroeconomic performance. The importance of banking in the financial system and the influence of Federal Reserve monetary policies are also studied. Offered: Fall.

**353 Financial Analysis And The Economy (3).** This course examines techniques of financial evaluation used by individuals, corporate managers, and portfolio analysts. Focus of the course will be on the interaction of the mechanics of analytical methods and economic activity. Topics covered will include individual portfolio building, asset evaluation, and financial market theory. Prerequisites: Economics 201 and 202. Offered: Winter odd years.

**366 Art Markets (3).** An economic analysis of the development of art markets and the issue of government involvement in the arts. Prerequisite: Econ 202 is recommended, but not required.

**397CP Current Macroeconomic Issues (3).** This is an independent studies course which addresses such macroeconomic issues as courses and remedies of inflation, recession and economic growth. This course is part of a Macro Pace Block. Prerequisites: Econ 201, Econ 202. Offered: Winter, odd years.

**486 Labor Economics (3).** An examination of the theories of wage determination, the economic effects of wage determination upon the wage structure, the distribution of national income, employment, and an introduction to collective bargaining. Prerequisite: Economics 302. On request.

## PACE - English Courses

**352P Critical Approaches To The Short Story (4).** In this course the student will explore the short story as a literary genre. Stories will range from the early masters such as Chekov, Kafka, and Hawthorne through contemporary offerings from Lessing, Mishima, and Achebe. Several critical approaches will be presented including formalism, New Historicism, and race/class/gender criticism. Students will keep a reading journal covering all material read for the course, and will be assessed on the basis of this journal, a mid-term and a final examination. Prerequisites: None.

**353PW Critical Review & Evaluation Of Fiction & Film (Writing Intensive) (4).** The weekend component of this block meets one weekend per month for a total of 70 contact hours. The goal of the course is to improve students' writing skills along with their ability to read and analyze texts, both literary and cinematic. During the course students will read four novels and a set of critical essays, one for each weekend, which will be followed by viewing and discussing a film adaptation of the novel in class. Various critical approaches will be included in the reading and will be discussed in class in an effort to enable students to apply these critical principles in their own critical essays. Because the class meets only one weekend per month and a process approach to writing is utilized, students will be encouraged to use the facilities of the internet to share drafts of their essays with their peer revision group members and with the instructors during the weeks between class meetings. Students will bring revised drafts of their work to the weekend meeting where a significant amount of class time will be spent in writing workshops. Students will be assessed on the basis of their portfolios of critical writing consisting of four major essays and an extensive cover letter, their reading/viewing journals, and their participation, both in class and in peer response groups. Prerequisites: WEPT. Offered: 1 weekend/month for 4 months.

**354P Masterpieces Of Fiction (4).** The goal of this independent study is to provide the student with time and space to read and respond to 7-9 critically acclaimed and classic novels. Students will be allowed to choose the novels they wish to read from a list of 50 that will be provided by the instructors. This course must be taken in conjunction with at least one of the other two courses in this block in order to ensure that the student has exposure to literary theory. Students will be assessed on the basis of their response journal, casual oral examination, and a critical essay. Prerequisites: None.

**460PW Written Discourse: Speaking, Writing, Composing (4).** Prerequisite: Successful completion of the WEPT (effective FS93).

## PACE - History Courses

**102P American History Since 1877 (3).** This covers American history from the end of Reconstruction to the present. History 101 is not a prerequisite for this course. Offered: Fall, winter, summer.

**330PW The Works Of Western Man (4).** In the period 1750-1987, the nations bordering the Atlantic Ocean, largely relying on their technological advances, became world powers. This course, relying on analysis of films plus required readings, will survey the energy sources employed, the tools developed, and the regimes of the workplace which led to this dominance.

Grades will be assigned to three types of exercises: frequent quizzes, a mini-project in historical research and a book critique of a piece of fiction. Prerequisite: Successful completion of the WEPT (effective FS93).

**331P America In The Machine Age (4).** The United States has experienced repeated waves of technological advancements. This course will largely focus on industrialization in the 19th century as well as consumer society of our own era. How Americans produced goods and what were the dynamics of the market place are two central themes. Required readings will be complemented by films and presentations from resource persons throughout Kansas City. A research project and three tests are required.

**332P The City: Past And Present (4).** The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e., Mesopotamia, Egypt, Greece and Rome.

**400Z Special Studies (1-3).**

**470P Ancient World: The Social History Of The Ancient World (4).** The optional four-credit-hour component (modified independent study) will concern the social aspects of these civilizations, i.e., their daily lives. Readings and audiovisual aids will be used to help the student who will be expected to choose one aspect of each civilization, such as women, slavery, merchants, education, medicine, etc., and write a five-page paper about that topic for each period, i.e., Mesopotamia, Egypt, Greece and Rome.

**471P Ancient World: The Political Structure Of The Ancient World (4).** The four-hour lecture period on weeknights will emphasize the historical aspects of the ancient civilizations. The lectures will be chronologically organized to focus upon their evolution from their rise to their collapse.

**472P Ancient World: The Cul/Intellectual Dimension Of Ancient Civi (4).** The four weekend periods will provide the students with a general picture of these civilizations: society, religion, economics, and culture (w.f., arts, literature, philosophy, science, etc.). Guest lecturers, slides, films and video cassettes will be used to introduce the varied aspects of these ancient peoples.

## PACE - Humanities Courses

**104P Indep Study/Tutorial: Spec Applications: Themes Of Individuality (4).** In this course students apply knowledge and skills gained in the weekend and weekday courses to four supervised and well delineated study projects relating to the major themes of Block II, and involving various art forms and presentation media.

**105P Literature, Composition & Critical Thinking: Individual & Society (4).** This course develops facility in writing, reading and critical thinking through numerous writing and critical thinking activities, papers and readings focused around the topic of the relationship of the individual and society. This course accomplishes the purposes and fulfills the requirement of the first semester of freshman English.

**106P The Individual In Literature, Philosophy And Art (4).** This weekend course acquaints students with classic works of literature, philosophy and the fine arts, as well as the methodologies of the humanities, by means of an historical and systematic analysis of the developmental stages of individuality from the classical period to the contemporary era.

**201P The Many Lives Of Dr. Faust (4).** This course will involve the development, impact and artistic forms of "The Lives of Dr. Faust," a major legend in Western Culture. This course examines Faust as dealing with a search for knowledge from Byzantium to modern Europe and America. This approach covers such topics as the limits of power, the choice between good and evil, and the limits of human awareness. The course will present this Faust legend in various artistic forms, by allowing the student to experience this "myth" through art, drama, literature and culture. Offered: Winter.

**202P The Meaning Of The American Experience (4).** This course meets the College requirement for English 225. Integrated with the other courses in the block, its aim is to help students to become informed writers on the topics of American myths. The first part of the course will require students to write personal response papers; the second half will involve library research that can be synthesized into research papers. Offered: Winter.

**203P American Dreams: Four Major American Myths (4).** This course examines several meanings of four major American myths: the Puritan myth, the myth of the land, the myth of individualism and the myth of the machine. Students will examine works of literature, art, and film in order to comprehend the meaning of myth in their own culture and grasp the way in which cultural artifacts shape and express current values in American life. The course will take special note of the Faust myth's relevance in American culture. Prerequisites: Concurrent enrollment in Humanities 202P. Offered: Winter.

**320P International Cultures (4).** At the beginning of the new Millennium, this PACE course should heighten students' awareness of the values, esthetics

and historical baggage of a particular culture as it introduces them to the dynamics of a rapidly changing world. Literature and scholarly texts will be in the in-roads to the culture and will deepen the students' insight into contemporary events. Course will vary with geographical area of study.

**340PW The World Of Advertising (4).** This course will present a broad overview of advertising literature. Students will be given some idea of the issues inherent in the world of advertising, procedures for running an ad campaign, and the role of persuasive writing and graphic design. As projects to accompany the historical and theoretical aspects of advertising, students will design a commercial or an ad campaign. The course will emphasize critical thinking, ethical issues, writing and speaking. Prerequisite: Two semesters of composition and successful completion of the WEPT (effective FS93).

**375P Research In Women's Culture (4).** Independent Study: Each student, with an instructor, will develop a research topic of personal or professional interest related to PACE 376P or PACE 377P and produce appropriate writing on the topic.

**376P Textual Representation Of Feminine (4).** Focusing on the roles women have played in literature, as characters, as readers, and as writers, students will read, write about, and discuss short fiction, novels, and feminist literary theory. This course explores the ways in which both the choice of subject matter and the method of presentation differ in female-written and male-written texts, the ways in which women have been portrayed in literature by women writers and by men writers, and the ways in which ethnicity affects both subject matter and writing style in women's writing.

**377P Growing Up Female With Mass Media (4).** The purpose of this course is to examine women and women's issues in American film, media and culture. Focusing on the construction of women's images in the information age, the course follows the rise of feminism, backlash and "post feminism" to the position of the contemporary woman, providing a historical context for popular culture.

**401PW The Culture Of The Working Class: Independent Study (4).** This course, the independent study component of the labor and economics block, will employ a variety of cultural media which illustrate some of the issues covered in the weekend and evening courses. "The Culture of the Working Class" will show how literature, art, music and film have reflected and/or influenced the labor movement. Students will read novels, short stories and poems, view movies and works of art which address problems of the working class, both in Western Europe and the United States, from the late 1800's to the present. The work done will be validated through written work by the student. Prerequisite: Successful completion of the WEPT (effective FS93).

**404PW Professional Communication (4).** In this course students will study formats for various types of technical reports, from resumes to completion reports, most of which will use as content research projects assigned in the independent study segment. Students will also study techniques for presenting material orally, from small group communication to formal presentations of longer technical reports, complete with audio-visual aids. In both written reports and oral communication, students will learn to consider a variety of audiences. The course will have texts and will be team-taught. The writing element will provide another option for PACE students to fulfill the new junior/senior writing requirement. Prerequisite: Successful completion of the WEPT (effective FS93).

**408P Images Of Aging In Literature (1).** This one credit hour course will give students an opportunity to examine human attitudes towards the changes that occur in later life viewing them through fictional characters and events. It is one thing to learn the facts of the aging process and aging in society, but quite another to examine attitudes and feelings about such issues subjectively, through the eyes of one facing them. Through reading literature about older people and their concerns, discussing it and writing papers about it, students should develop a truer perspective about that portion of their own lives and alter their attitudes towards older people in their present culture. Though this is a one-credit-hour course, discussions and papers may also draw from readings done in the Independent Study portion of the block.

**410PW Turning Life Into Stories (4).** This course will take a factual approach to creative prose writing, including both artistic nonfiction and fiction in various forms. The instructor will describe a form, suggest ways it might be written, and illustrate the form with examples of his own work and that of other writers. Student papers will be critiqued in writing by the instructor. Students will also read much of their work to the class, which will operate as a writing workshop. Prerequisite: English 110 & 225 (or equivalents) and successful completion of the WEPT (effective FS93). Summer.

**452 Images Of The Family In Art And Literature (4).** An application of the skills and knowledge gained from the companion weekend and/or weekday courses in this block by means of the instructor-approved and guide independent study projects of the student's own individual or small group choice, focusing on images of the family in literature and art. Each student must select and present four projects (one on each of the following faith cultures-Christianity/Judaism, Islam, and one on a topic of their choice) in written, oral and/or audio/visual media. Students meet in groups and individual sessions with the instructor of this block.

**461 Interpreting Past And Present Rhetorical Practices (4).** The purpose of this course is to examine what rhetoric is and how it has been (and is currently) used to influence what we believe, practice and value as individuals and as a society. Beginning with the classical period, then moving chronologically to present day rhetorical theories, students will analyze the ways in which rhetoric has both influenced and been influenced by its historical context. Course grades will be determined by four examinations, an 8-10 page course paper, and an oral presentation of the work of one rhetorician.

**462 Analyzing Modern Discourse Communities (4).** In this course, students will learn how to critically examine the rhetorical effects of political, legal, journalistic, literary documents. Students will also learn how to more effectively argue by mastering particular rhetorical strategies. There will be four written projects in this course: a summary/research assignment, a review assignment, an analysis assignment and an argument assignment.

**490P Perceptions & Images Of Disabilities In Literature And Film (4).** This course combines classroom discussion of selected films and literature and independent study. Students will study films and selections from literature to develop an understanding and awareness of the social, economic and political aspects of disability as conveyed through popular culture. Students will also apply research, observation and writing skills to gain awareness and insights regarding disabilities, through working on an individual or team project. The project will further the understanding of disabilities and how various social, psychological and environmental conditions may affect people with disabilities and their families.

## PACE - Integrated Studies Courses

**401P The Creative Source: Concepts And Actions (4).** A survey of the intellectual history of our culture highlighting the contributions of important philosophers, theologians, scientists, political figures, artists and musicians from antiquity through the contemporary period. Prerequisite: Senior standing.

**402P Turning Points In The History Of Ideas (4).** Focused discussions on specific aspects within the history of ideas in five major eras (Antiquity, the Middle Ages, the Renaissance, the Romantic Age and the 20th-century). Prerequisite: Senior standing.

**403P Major Intellectual Developments In Western History (4).** Major developments within the history of ideas in philosophy (and religion), the arts, political thought, and the history of science. Prerequisite: Senior standing.

**425P Integrative Seminar In Disability Studies (1).** The Integrative Seminar in Disability Studies provides students the venue to focus and synthesize their knowledge of disability within an academic field. Required for Interdisciplinary Certificate in Disability Studies. Prerequisites: Humn 490P, Psych 406P and Psych 407P Offered: On Demand

**430P Development Disabilities: Partners In Policymaking (8).** Participants, selected through an application process conducted by the Missouri Planning Council for Developmental Disabilities, attend eight two-day sessions over a period of eight months. Partners meet with and learn from nationally known speakers, gaining state of the art information on critical issues, including state and federal issues. Partners develop skills that will enable them to form productive partnerships to influence police and law. Prerequisite: Selection by Missouri Planning Council Offered: TBD

## PACE - Interdisciplinary Studies Courses

**201P Energy, Technology And Society (4).** Independent study television course. Technology is examined as a human activity that reflects society's needs and values. The social implications of technology are explored and the concept of technological systems is developed. The history and evolution of technology is studied, particularly as it has influenced life and planning for the future. Prerequisites: Concurrent enrollment in Interdisciplinary Studies 202P and 203P.

**202P Energy Science (4).** Weeknight course. Fundamental physical principles and concepts concerning energy sources, energy production, energy use and energy reserves will be studied. Emphasis will be placed on the physics of energy including chemical, electrical, mechanical, nuclear, solar and thermal energy. Prerequisite: Concurrent enrollment in Interdisciplinary Studies 201P and 203P.

**203P Social, Economic And Political Influences On Energy (4).** Weekend course. Some of the most important determinants of uses of energy and technology are social rather than physical. This course will consider such influences as energy conservation, the psychology of decision making, the impact of our organization on the means of production and our ability to utilize available energy to satisfy human needs, the human costs of high technology with respect to basic biological requirements and also with respect to higher human needs. Finally, alternative social organizations will be studied. Prerequisite: Concurrent enrollment in Interdisciplinary Studies 201P and 202P.

**204P Work, Labor And Society (4).** This course focuses on work, labor and society. Agrarian societies and the rise of industrialism are studied. Emphasis

is placed upon understanding the role of the worker in today's society. Prerequisites: Concurrent enrollment in Social Science and Humanities 202P and 203P.

**205P Liberalism And The Technological Society (4).** Weeknight course. The philosophy of liberalism and the reactions against that philosophy will be studied. We will examine the factors that have led to the rise of industrialism and technology and study the ways in which they have affected other aspects of the society. Students will be required to write a term paper. Emphasis will be placed on research and bibliographic methodology. Prerequisites: Concurrent enrollment in Social Science and Humanities 203P is required.

**206P Political And Social Aspects Of A Technological Society (4).** Weekend course. Industrialism has changed our way of looking at ourselves and the world. We will examine the new conception of the individual that arose with industrial society and will focus on some of the problems and prospects that have been associated with it. Social Darwinism, unions, and various utopian/anti-utopian theories will be among the ideas studied. Prerequisite: Concurrent enrollment in Social Sciences and Humanities 202.

**308P Introduction To Physical Anthropology (4).** Study of the basic concepts, methods, and research areas in physical anthropology. Topics include: scientific methods, forces of evolution, dating methods, archaeological techniques, primate characteristics and behavior, and the tracing of primate and human evolution through skeletal material and artifacts. The evolutionary and adaptive forces resulting in human physical diversity and the underlying physical unity of all humans will be addressed.

**310P Global Political And Social Issues (4).** This course will give students a broad overview of a particular culture, region or ethnic group's political and social issues within the context of contemporary global challenges. Major topics include politics, economics, environmental and international concerns appropriate to understanding a cross section of traditions and values of a variety of social strata within a designated area of study.

**350P Interdisciplinary Perspectives On Aging: Readings And Film (4).** This course within the PACE block provides the student an opportunity to pursue special areas of interest in gerontology which will be only parenthetically covered or omitted altogether from the other courses in the block. Furthermore it challenges the student to become acquainted with and develop his/her independent study and research skills by means of addressing issues in the field which are of special interest to him/her and relevant to the field.

**380P People With Special Needs: Education Planning (4).** This course will address educational and psychological assessment strategies that result in a diagnosis of disability. Various specific disabilities and legal parameters for public education of people with disabilities will be discussed. Students will learn how to read and understand various educational and psychological assessment reports and will become knowledgeable about how to access community supports and services to address special needs in an education setting. By the end of the course students will have created a personal notebook of educational planning and accommodations for use as a resource for parents, teachers, or students in educational settings. Offered: Fall or Winter

**381P People With Special Needs: Career Exploration (4).** This course will address the issues that arise in career exploration and planning for people with a disability diagnosis. Students will become familiar with the philosophy of community inclusion and will learn how to plan based upon the unique strengths and interest of the individual. Career exploration tools will be explored in class and as assigned, and students will create a personal notebook to be used as a resource tool of accommodation materials and aides. Offered: Fall or Winter

**382P People With Special Needs: Disability Service Settings (4).** Independent study course: Students will meet at specific times as a group with the instructor, will write a term paper, and complete a 20 hour practicum in a pre-approved disability service setting. Offered: Fall or Winter

**401P The Natural Life Cycle (4).** Independent study Television course. Students will be exposed to some of the latest concepts and research related to the natural life cycle. The various tapes to be viewed in this class will focus on the birth process, the maturation of the individual, and the abnormalities that can occur through various diseases and death. The tapes will have a predominantly biological orientation, although there will be a few tapes that provide artistic insight into the various stages of the life process. Prerequisites: Senior standing and concurrent enrollment in Interdisciplinary 402P and 403P.

**402P Literature And Life Sciences (4).** This integrated weeknight course attempts to provide students with an overview of the relationship between biology and literature. Other disciplines also will be discussed, but these two will be the dominant ones presented. The life cycle of the human organism will provide the structure for this course. This process will then be subdivided into various substrata focusing on such aspects as childhood development, nutrition, the cardiovascular system, and the nervous system. Each of these aspects will also be examined from an artistic point of view. Prerequisites: Senior standing and concurrent enrollment in Interdisciplinary 403P.

**403P Stages Of Growth (4).** This integrated weekend course will attempt to offer the student both laboratory experiences and cinematic works that focus on the life-cycle process. Each of the weekend sections will be devoted to a particular stage of development, moving from conception to birth and childhood, to maturation and death. Prerequisites: Senior standing and concurrent enrollment in Interdisciplinary 402P.

**420P Brain And Behavior (4).** The class will explore current and sometimes contradictory theories and evidence for the interaction of biological and psychosocial processes in such areas as gender differences, the experience of pain, addictive behaviors, and diseases such as depression, heart attack, rheumatoid arthritis and anorexia. Students and instructor will also briefly examine the organization of the triune brain, neurologic accidents, the range of tools currently used in diagnosis and treatment of mind-body diseases, and raise some of the bioethical issues these problems engender. Methods will include lecture, discussion, readings, films, oral class presentations, papers and exams. Prerequisite: One course in biology and/or psychology. Summer

**482P The Meanings Of Masculinity In Contemporary U.S. Culture (4).** Topics include: Perspectives on Masculinity; Boyhood; Collegiate Masculinities: Privilege and Peril; Men and Work; Men and Health: Body & Mind; Men in Relationships; Male Sexualities; Men in Families; Masculinities in the Media; Men, Movements, and the Future. Small and large group discussions are anticipated in the classroom. Outside of the classroom, students will be expected to complete a series of assignments that are relevant to the topics at hand. This course would ideally incorporate UMKC faculty/staff and individuals/groups outside of the university who have completed research/work that seeks to understand men's lives better.

**483P Artful Man Embodied: Cultural Icons Of Masculinity (4).** This course will examine a variety of mediums used to "embody" meanings of masculinity (with special attention paid to shifting settings for one media source can alter its meaning drastically simply by being located in a different venue and/or time). This course will incorporate tours of, and works from, the Nelson-Atkins and Kemper Museums. Images by/of "men" to be examined include those found in the work of selected "masculine icon" authors; those found in popular culture; and those found in the everyday (seemingly mundane) worlds of family, work, and medicine. As the title of the course implies, students will explore historical ideas about bodies/embodiment (be they scientific, religious, social, etc.) into their image exploration. Restrictions: Enrollment in Meanings of Masculinity recommended to take the course.

## PACE - Natural Science Courses

**101P Changing Life On Earth (4).** This course presents an overview of issues relating to our ever changing world. It is research oriented with papers required on topics dealing with behavior, environmental issues, and aspects of evolution. Prerequisites: Concurrent enrollment with NatSci 102P.

**102P Fundamentals Of Life Science (4).** This course emphasizes the essential properties of biological systems through four major themes: diversity, the chemical and physical basis of life, continuity, and the organismal nature of life. Prerequisite: Concurrent enrollment in Natural Sciences 103P. As needed.

**103P Applications Of Life Sciences (4).** This course is designed to provide students with laboratory exercises, field trips, films and discussions that help apply biological principles from 102P. New concepts are introduced throughout the course. Prerequisite: Concurrent enrollment in Natural Science 102P. As needed.

**308P Physical Measurements (4).** An introduction to metrology, this course will emphasize physical measurements in technology and trade as well as in daily life. Material will include the historical development of measurement units, from cubits to meters, especially since 1960; gravitational versus absolute systems; the International System of Units (SI); organizations, treaties and statutes; accuracy vs. precision; and numerical values: conventions, conversions and rounding. Student work will involve laboratory exercises, exams, practicum work and homework assignments (brief essays and/or problem solutions). Prerequisite: Math 110 or 150 (or equivalent) Summer.

**375P Nature Of Science (4).** Selected topics from the natural sciences. Provides students fundamental principles and concepts of various physical and mathematical sciences. Lectures, demonstrations and discussions provide an integrated approach to the natural sciences.

**425P Introduction To Quantitative Methods (3).** Topics addressed are the scientific approach to study of behavior (goals of science, research terminology, variables, distributions, measures of central tendency, confidence intervals, use of research methods and ethics in research), experimental design (validity, reliability, design and sampling techniques), and interpretation of research results. Course includes in-class computer data entry and analysis. Prerequisites: Intro to computers and Math 110 or 116

**430PC CC: Biological And Ethical Issues In Aging (3).** This course is designed to provide both a disciplinary and interdisciplinary study of the biological, philosophical, and ethical foundations and principles underlying the phenomenon of aging on an individual and societal level. Various



physiological, neurological, anatomical, and psychological processes and changes characteristic of the development occurring during the aging process will be identified, studied, and discussed. The philosophical and specifically ethical issues associated traditionally with aging will be re-examined and analyzed in terms of scientific, technological, cultural, sociological, economic, and legal changes in knowledge and attitudes. **PREREQUISITE:** Biology 102 or equivalent.

## PACE - Philosophy Courses

**401PC Cc: Biological And Ethical Issues In Aging (3).** This course is designed to provide both a disciplinary and interdisciplinary study of the biological, philosophical, and ethical foundations and principles underlying the phenomenon of aging on an individual and societal level. Various physiological, neurological, anatomical, and psychological processes and changes characteristic of the development occurring during the aging process will be studied, and discussed. The philosophical and specifically ethical issues associated traditionally with aging will be re-examined and analyzed in terms of scientific, technological, cultural, sociological, economic, and legal changes in knowledge and attitudes. Prerequisites: Biology 102 or equivalent. This course is also cross-listed as NAT SC 401PC.

## PACE - Physical Science Courses

**301P Scientific Approaches To The Physical Worlds (4).** Applications of chemistry, earth science and astronomy in industry and to our daily environment. Particular emphasis is placed on the technological advancements made in these areas of natural science and on their relationship to our standard of living.

**302P Concepts Of Chemistry, Earth Sciences And Astronomy (4).** Basic principles of chemistry, earth sciences and astronomy with special emphasis on the earth and its environment.

**303P Applications Of Physical Science (4).** Laboratory exercise, field experiences, tutorial-type seminars and recitation in elementary chemistry, earth science and astronomy.

## PACE - Political Science Courses

**358 Global Political And Social Issues (4).** This course is designed to afford the student with an overview of important global and regional challenges associated with the emerging 21st century. Hence, there are three objectives: (1) gain an understanding of the facts and complexities of the selected issues within the framework of globalization; (2) describe and explain difficulties in formulating political/policy consensus aimed at resolving these issues; (3) considering both the factual complexities and difficulties in formulating policy; identify future trends related to major global challenges.

**407P Politics Of Representation (4).** A study of legislative institutions, procedures and behaviors in the U.S. Congress that raises practical as well as theoretical questions of political representation in modern society. This course will be presented by video cassette and will be integrated with Political Science 406P and Political Science 409P. Prerequisites: Social Science PACE 102P and 103P or Political Science 210 or equivalent; concurrent enrollment in Political Science 406P and Political Science 409P.

**409P Bureaucratic Politics (4).** This weeknight course will examine the emergence of bureaucracies as the modern method of collective problem solving. In the U.S. political context, this involves the dynamic interplay of rational choice, due process and pluralistic politics. The transitions from limited to positive government and then to the current ethos of deregulation will be studied.

**435P Politics Of The Environment (4).** A survey of the political aspects of environmental issues. The course poses the problems of environmental damage and examines actual and proposed policies aimed at addressing them. The course content is the same as Political Science 435 title except additional reading and writing will be required commensurate with a 4 credit hour course.

## PACE - Psychology Courses

**270P Compulsive Gambling And Other Addictions (3).** Course will focus on compulsive gambling and the psychology of addiction. Alcohol, drug, food and sex addiction will also be explored. After attending this course, the student will be able to understand the problem gambling continuum, the phases of the problem gambler and how this addiction affects the family.

**407P Developmental Disabilities And Community Life (4).** Focus is on developmental disabilities in community life and interdisciplinary process as a means of coordinating services and supports in community settings. Students will learn about specific disciplines and professions and how they must work together in the community. Topics include the State developmental disabilities network and service system, the principles of person-centered planning, the effects of severe disability on families, and the dynamics surrounding community inclusion of persons with severe disabilities.

## 490P Perceptions & Images Of Disabilities In Literature And Film (4).

This course combines classroom discussion of selected films and literature and independent study. Students will study films and selections from literature to develop an understanding and awareness of the social, economic and political aspects of disability as conveyed through popular culture. Students will also apply research, observation and writing skills to gain awareness and insights regarding disabilities, through working on an individual or team project. The project will further the understanding of disabilities and how various social, psychological and environmental conditions may affect people with disabilities and their families.

## PACE - Social Science Courses

**210P Foundations Of Social Science (3).** An application of salient principles, facts and methods of social sciences to study of origins and nature of social institutions; problems of emotional adjustment and vocational choice; analysis of contemporary social, legal and economic trends affecting values, conception of freedom and of social power, and political organization.

**302P Power and Authority (4).** This weeknight course is intended to deal with the issues of power and authority as they bear on people at the individual, family, social and political levels. The intent of the course is to discuss the issues of control, power, authority and the limits of obedience. Prerequisites: Social Science 102 and 103 or equivalent; concurrent enrollment in Social Science 303P.

**305P Economic Principles And Applications Of Accounting (1).** In this one-hour course, students will use computers to apply accounting principles and to analyze annual reports of corporations. The course will be taught during one hour of a four-hour weeknight course, with Accounting 201 being taught during the other three hours. It should be taken concurrently with Accounting 201 and with the Independent Study course, Social Science 403P, Business Administration Applications. On a two-year rotation.

**355P The Environmental Movement: Roots And Actions (4).** A multi-disciplinary course synergizing case studies from history, political science, environmental management, and urban planning to develop a deep understanding of current environmental issues. We will probe such issues as the Concept of Nature and Environmental aesthetics Agriculture and the Environment, Energy and the Environment, Developing the "Built Environment", Environmental Costs of Industrialism, the Birth of the Environmental Movement, Environmental Politics, Environmental Justice and many other topics.

**359P Technology Policies In Hospitality (4).** This course will examine policies and practices of technology in hospitality and the impact of technology on decision making in the industry. Special attention will be given to the relationship between technology and organizational resources, examining the future development of policies and practices. Prerequisites: None. Offered: Any Semester.

**364PW Contemporary Industrial Society (3).** This course examines the historical theoretical and behavioral foundations of the industrial economy of the U.S. Particular emphasis is placed on technological change, the culture of modern corporations, strategic planning and the contemporary environment of business enterprise (legal, social, environmental and economic). The major institutions of business structure of the modern corporation are covered. Prerequisites: Econ 201, 202 and successful completion of WEPT Test. Offered: Fall.

**375P Contemporary Issues In The Service Industry (4).** This course will allow students to undertake in-depth research of current issues important to the service industry. Focus will be placed on understanding theoretical principles and their impact on management behavior and decision making. Issues may include; the evolving technology of the industry, the impact of the industry on national employment issues, and the social impact of the industry on class and racial issues. This course is offered as an independent study and must be taken in conjunction with Econ 323P: Administration in the Service Industry. Prerequisites: None. Offered: Any Semester.

**395B The Economics Of The Law (1).** See ECON 395B. Prerequisites: ECON 201 and ECON 202. Offered: Fall.

**395C Economics Of Energy (1).** See ECON 395C. Offered: Fall.

**395G Economics Of Poverty (1).** See ECON 395G. Offered: Fall.

**397A The Economics Of Public Process I (1).** This film/tape course and Economics 397B are specifically designed in the format of the PACE program. Regular majors in economics may count one of these two courses as meeting the 27 minimum required departmental hours. The J.K. Galbraith film series and text, *The Age of Uncertainty*, provide the central theme for this course. Offered: Fall.

**397B The Economics Of Public Process II (1).** This film/tape course and Economics 397A are specifically designed in the format of the PACE program. Regular majors in economics may count one of these two courses as meeting the 27 minimum required departmental hours. The Milton Friedman film series, *Free to Choose*, provides the central theme for this course. Prerequisites: Econ 201 and Econ 202. Offered: Summer.

**403P Industrial Organization Applications (4).** The students will read books and business journals and reflect, in written form, on topics related to the organizational environment. Students will also research and prepare technical reports on specific organizational issues. Validation will be coordinated with the technical writing component of the block. Offered: Fall

**411P Aging In American Society: Past And Present (4).** Modern views of aging are often contrasted with views of aging in earlier times. The popular mythology suggests that the position of the older adult has fallen from a place of high status and respect. Exploring the myths and rhetoric, this introduction to the field of social gerontology examines aging in America as grounded in the nation's history and a variety of sociocultural contexts.

**438P Labor History & Economic Policy (3).** Analysis of the confluence of political and economic behavior the economics of collective action. Prerequisites: Economic 301 and 302. On request. Prerequisites: Econ 201 and Econ 202. Offered: Summer.

**456P In-Depth Country Study (4).** Students enrolled in this section will chose a country in Latin America (not their country of origin, if applicable) and prepare a country study. Students will receive a general reading list (which has to be incorporated) and, if desired, suggestions about country-specific readings. The studies should be founded in cultural anthropology: i.e., they should be holistic in integrating all population groups of the country, and they should be integrated in treating the country as an inter-connected, but open, system.

**457P First Nations And Survival In Latin America (4).** This course examines the history of a specific country, historical and contemporary issues (such as genocide, land use, economic and political marginalization and independence movements.) The course focuses on history and experience as it is constructed by and impacts native people. Special consideration is given to women and gender constructs in the native societies and the impact of a dominant European patriarchy.

**458P Women, Men And Development In A Cultural Context (4).** Students will explore two main areas of social scientific discourse in Latin America: theories of development and marginalization; and feminist interpretation of and responses to development. We will explore how the phases of political and economic history are reflected in ideas about development, dependency, and women's issues. A large part of the class will be concerned with the increasingly important issue of street children in Latin America and other minority issues. Offered: Winter

**465P Human Resources In The Service Industry (4).** This course will trace the historical development, and examine current policies and procedures of human resources in service organizations. Special emphasis will be placed on understanding the evolving importance of employees in developing systems to meet operational goals. Management and labor perspectives on legal employment issues, compensations issues, and team development strategies will be examined. Prerequisites: None. Offered: Any Semester.

**489P Internship In Hospitality Studies (4).** This course will allow students to demonstrate mastery of acquired theories and principles in conjunction with a working hospitality organization. Emphasis will be placed on directed research and readings to enhance individual understanding or concepts. Students will work with the Hospitality Studies Coordinator on exact course requirements. Prerequisites: Permission of instructor. Offered: Every Semester.

**490C Readings In Labor Economics (1).** See ECON 490C. Prerequisites: ECON 201 and ECON 202. Offered: Winter.

## PACE - Sociology Courses

**381P Everyday Masculinities (4).** This independent study course is designed to encourage students to put into play their study of and growing understanding of men's lives. Each student will design and carry out an independent study/research project that will take into account (critically) the experience of at least three men in their immediate surroundings. Ethnographic methods (observation, field-note/interview and transcription strategies, write-up, etc.) will be covered to facilitate the student's successful completion of their project. The project will be broken down into phases to insure timely progress throughout the semester. Restrictions: Concurrent enrollment in Meanings of Masculinity required.

## Percussion Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).**

**101 Freshman Percussion I (2-4).**

**102 Freshman Percussion II (2-4).**

**201 Sophomore Percussion I (2-4).**

**202 Sophomore Percussion II (2-4).**

**301 Junior Percussion I (2-4).**

**301J Junior Percussion I (Jazz) (2).**

**302 Junior Percussion II (2-4).**

**302J Junior Percussion II (Jazz) (2).**

**401 Senior Percussion I (2-4).**

**401J Senior Percussion I (Jazz) (2).**

**402 Senior Percussion II (2-4).**

**402J Senior Percussion II (Jazz) (2).**

## Pharmacy Courses

**7100A Introductory Topics In Pharmacy I (0.5).** Discussion of the system of pharmacy, role of pharmacist as provider of health care, their education and professional organizations. Class meets for two hours once per month. Prerequisite: Admission restricted to provisionally admitted students in the School of Pharmacy. Credit/no credit. Offered: Fall Restrictions: AU 50

**7100B Introductory Topics In Pharmacy II (0.5).** Continuation of Phar. 100A. Credit/No credit. Offered: Winter Restrictions: AU 50 Prerequisite: Pharm 100A

**7101 Professional Skills Development I (2).** This course introduces students to the profession of pharmacy and professional responsibilities and roles of a pharmacist. Students will complete and present a group project solving a community-based health issue as part of this course. This is the first of three courses with an integrated curriculum focused on professional skills development. Prerequisites: Admission to the Pharm. D program. Restrictions: AU 52 Offered: Fall Two 1-hour class sessions are held per week.

**7104 Professional Skills Development III (3).** This course provides instruction in performing the necessary calculations involved with the practice of pharmacy including, but not limited to, calculations, involved with dosing patients by body weight and body surface area, preparing iso-osmotic preparations, and the extemporaneous compounding of pharmaceutical formulations. In addition, professional skills are developed with traditional dispensing of pre-manufactured prescription drugs, extemporaneous compounding, preparing intravenous products, and instruction in the acquisition and interpretation of clinical laboratory data associated with several disease states. Prerequisite: PHAR 414

**7110 Pharmacy Calculations (2).** This course provides instruction in performing the necessary calculations involved in the practice of pharmacy and the dispensing, manufacturing and preparation of dosage forms. Topics covered include but are not limited to: fundamentals of pharmaceutical calculations (numbers,numerals,exponents,ratios,percentages,proportions and fractions); International System of Units; pharmaceutical measurements; interpretations of medication orders and prescriptions; density,specific gravity and specific volume;patient specific parameters involved in dosing(surface area,weight and age); isotonicity and buffer solutions; milliequivalents,millimoles and milliosmoles;dilution,concentration and alligation;and,reducing and enlarging formulas. The ability to apply principles and formulas to solve pharmaceutically relevant problems related to the above listed topics is an outcome for this course. Students must have an understanding of mathematical principles to include algebra and calculus. Prerequisite:Math 210Offered:Winter Semester. Restrictions: AU 51&52

**7125 Medical Terminology (1).** This course will provide the necessary information towards proficiency in reading and understanding the meaning of common medical terminology. This ability will provide a foundation for student learning in courses that rely on medical terminology to explain physiologic and clinical processes. Prerequisite: Admission to the Pharm D program. Offered: Fall Restrictions: AU 52

**7151 Introduction To Pharmacy Law (1).** This course will provide an introduction to the federal and state laws that pertain to the practice of pharmacy. One hour of lecture per week. Offered: Fall Restrictions: AU 52

**7202 Pharmaceutics I (4).** Physicochemical properties of drug systems with consideration of incompatibilities and stabilization of pharmaceutical dosage forms, and physicochemical properties affecting drug action, degradation and bio availability. Three hours lecture and three hours laboratory a week. Prerequisite: PHARM 110 & 104 Offered: Fall Restrictions: AU 51 & 52 (Second Year Professional Standing)

**7203 Pharmaceutics II (3).** Discussion of pharmaceutical processes, equipment and material used in drug delivery systems and the preparation and evaluation of solid delivery systems and parenteral products. Three hours lecture and three hours laboratory a week. Prerequisite: Pharmacy 202. Restrictions: AU 51 & 52 (Second Year Professional Standing)

**7203L Pharmaceutics II Lab (1).** In this lab course students will perform hands on pharmaceutical processes, use manufacturing equipment, and prepare formulations in which selected dosage forms are manufactured and evaluated. This is a required lab for BS in Pharmaceutical Science students and a professional elective option for Pharm.D. students. Prerequisite: Pharmacy 202 Co-requisite: Pharmacy 203 (AU 51 students only)

**7245 Top 200 I (0.5).** This course requires the student to commit basic information about the Top 200 most prescribed drugs to memory. Prerequisite: Successful completion of Pharm D courses through semester 4. Offered: Fall and Winter Restrictions: AU 52 Level A

**7266 Medical & Medication Error Evaluation & Management (3).** A course designed to discuss the current body of evidence with respect to medical quality, medication errors, and strategies used to improve quality & minimize error rates. At the completion of the course, the student should be able to (1) review and synthesize evidence within the literature; (2) describe the policy framework designed to improve health care quality; (3) describe characteristics and factors that enable & encourage providers to improve the quality of care; (4) describe common causes of medication errors; (5) differentiate strategies to prevent errors; (6) correlate medication errors and specific disease states. Prerequisite: None Offered: Winter Restrictions: AU 52 Level B

**7303 Pharmacokinetics And Biopharmaceutics (4).** Study of pharmacokinetic models and equations; the concepts of the rate processes associated with, and the physical and physiological factors affecting absorption, distribution, and elimination of dosage forms. The concepts of bioavailability will be presented so as to prepare the student to evaluate bioavailability data. Three hours lecture and one two-hour discussion period per week. Winter. Restrictions: AU 51 & 52 Level A

**7310 Academic Service Learning I (1).** Students will be assigned to KC area service organization as a part of the Center for the City's Health Ambassadors program. A minimum of 30 contact hours must be completed during the assigned semester. Health education will be the primary focus. Prerequisite: Successful completion of Pharm D courses through semester 4. Offered: Fall/Winter semester Restrictions: AU 52

**7313 Career Planning (1).** This course enables students to engage in the study of career opportunities in the areas of industry, hospital/clinic practice, retail and managed care settings. Pharmacy opportunities are explored through lecture and discussion, guest speakers in the various areas and student exploration with business contacts and research. Topics include understanding career opportunities, achieving one's professional goals, compensation packages and negotiations, and designing a path to accomplish career objectives. Offered: Fall Restrictions: AU 52 Level A&B

**7323 Islam And Modern Practice Of Medicine And Pharmacy (1).** An elective course that addresses the significant contribution of Muslim physicians and scientists to the modern practice of medical sciences and the impact of the Islamic culture on issues related to health care. Credit/No Credit Prerequisite: None Restrictions: None Offered: Fall and Winter

**7325 Business, Professional & Technical Writing For Pharmacy Students (2).** This course will develop writing skills relevant for contemporary pharmacists. These skills will be used later in the curriculum and in practice. Students will develop competency by completing individual and group exercises on business writing, technical writing, patient education and health literacy. Prerequisites: English 110 and 225 and Pharm 7414. Offered: Fall

**7326 Evidence Based Medicine (5).** Pharmacists, if they are to assume the role of "medication expert" must have the ability to evaluate the medical literature and use the results of this evaluation to make evidence-based patient care decisions. To do this, pharmacists will need to assimilate existing information, create and assimilate information or create new information. The disciplined approach that evidence-based practice requires will assure the highest quality of problem solving and decision making possible by the pharmacist for patients, consumers and other healthcare providers. This course provides students with tools to evaluate the literature in a critical manner. The student will learn how to integrate information from multiple sources to make more complex healthcare-related decisions. A key aspect of the course is to provide confidence and ability in assimilating existing information into recommendations/decisions. Less emphasis will be placed on the creating of new information. Throughout the course, the student will observe and participate in applying these tools for evidence-based practice to real pharmacy issues in order to make individual patient care and population-based decisions. Prerequisite: PHARM 7420 and PHARM 7325 Co-requisite: PHARM 7485P

**7341 Medicinal Chemistry I (3).** This course is the study of medicinally active substances, both natural and synthetic, which describes their chemical properties, their mode of action, their structure-activity relationships and their

metabolic rate. Starting with their origin, it is shown how drugs in a series are developed by chemical modification, quantitative structure activity relationships and receptor theory. The chemical properties of a drug are described and explained. The mode of action of the drug is explained on a biochemical basis whenever possible. Once a drug has had its medicinal effect, it is excreted or metabolized. Reasons for excretion or metabolism are explained. Three hours lecture per week. Prerequisite: Chem 322R. Corequisite LSBIoc 365G. Offered: Fall.

**7344 Medicinal Chemistry II (3).** This course is a continuation of Pharmacy 341. It will focus on classifying drugs based on chemical and/or pharmacological properties. The pharmacophore concept and structure-activity relationships will be emphasized. We will also examine the influence of organic functional groups on physicochemical properties of drugs and eventually their pharmacological activities. Syntheses and metabolism of drugs will also be discussed. The metabolism will focus on organic functional group transformations. Three hours lecture per week. Prerequisite(s): PHAR 341 & LSBIoc 365G. Corequisite: LSBIoc 366G. Offered: Winter.

**7345 Top 200 II (0.5).** Same as Top 200 I, however additional information must be committed to memory building on what was learned in the prerequisite course. Prerequisite: Successful Completion of Top 200 I Offered: Fall and Winter Restrictions: AU 52 Level B

**7361 Pharmacology I (4).** Study of the pharmacology of medicinals with emphasis on basic principles, the autonomic nervous system and drugs affecting the cardiovascular and renal systems. Four hours lecture per week. Prerequisites: LSPHys 400 and LSBIoc 366 Restrictions: AU 51 & AU 52 Level A

**7362 Pharmacology II (5).** The study of the pharmacology of medicinals with emphasis on drugs affecting the central nervous system, chemotherapy, anti-microbial agents, and drugs used to treat endocrine disorders. Five hours lecture per week. Prerequisite: PHARM 361 or permission of instructor. Winter. Restrictions: AU 51 & AU 52 Level A

**7377 Principles Of Nutrition Support (2).** This course will introduce the student to the fundamentals of nutrition support and prepare him/her for future involvement in this important practice area. It teaches practical skills, including assessment of the patient's nutritional status, estimation of calorie and protein requirements and how to recommend an appropriate formulation to meet these requirements. The student will learn indications for parenteral and enteral nutrition and how to select the most appropriate feeding. The student is taught how parenteral and enteral nutrition is safely administered, will learn the major complications, as well as methods to prevent or treat these problems. Topics covered include venous access, care of venous access devices, central vs. peripheral parenteral nutrition, fluid and electrolyte management, admixture compatibility and stability, and management of the nutrition support patient in various disease states. Restrictions: AU 52 Level A & B

**7389 Advances In Drug Therapy (2).** Study of the advances in drug delivery and therapy; the concepts of advanced and novel drug delivery systems, modern drug analysis tools, role of efflux protein in drug kinetics, and transporter/receptor mediated drug delivery. Prerequisites: Phar 303 Co-Requisite: Phar 420 Restrictions: AU 52 Level B Offered: Fall

**7397 Home Health Care (2).** Anything a patient does in the home concerning their healthcare is considered Home Health Care. All aspects of Home Health Care are covered in this class. Diabetic & Ostomy products & care, Durable Medical Equipment (Wheelchair, cane, crutches, etc.), home Renal Dialysis, Wound Care, Respiratory Therapy, IV accesses, Home Infusion Therapy, Hospice Care, and Enteral Nutrition are presented and discussed. Reimbursement issues are not discussed due to constantly changing regulations. This is a "hands on" class with participation in, for example, ostomy fitting, crutches fitting, enteral nutrition taste testing, and a tour of a Home Infusion Pharmacy. Prerequisite: Familiarity with IV Admixtures. Phar 362 & Phar 405 Offered: Fall Restrictions: AU 52 Level A & B Co-Requisite: Phar 420

**7398 Comprehensive Diabetes Management (4).** The purpose of the course is to provide the student with a multidisciplinary foundation in the principles of diabetes management. The student will develop their knowledge and ability to assess, manage, educate and monitor patients with diabetes. The faculty are comprised of a multidisciplinary team of experts for the online lecturers. The in class discussion will be lead by a faculty member who specializes in diabetes management. Prerequisites: Pathophysiology, Advanced Nursing 548, Pharmacology I, Pharmacy 361 Restrictions AU52 I Levels A,B,C

**7399 Required Enrollment (1).** Required enrollment for international students in pharmacy training sites.

**7404P Drug Information Clerkship (4).** The candidate will spend one month providing service in the Drug Information Center. Activities are designed to enhance the candidate's skills in retrieval and critical evaluation of the drug literature. Candidates will participate in answering drug information questions and preparation of documents for pharmacy and therapeutics committees and service contracts of the Drug Information Center. Required rotations.

**7405 Pharmacotherapy I (3).** Pharmacotherapy I integrates the fundamentals of pathophysiology and pharmacology to develop the student's ability to provide pharmaceutical care. The course promotes the development and application of problem-solving strategies in self-limiting illnesses. In general, two hours of lecture and two hours of small group discussion per week. Prerequisite: Nurs 548, Pharmacy- 325,361,414 Offered: Winter

**7406P General Medicine I (4).** The candidate will spend two semester in a medical service at an affiliate institution. Emphasis of study will be on the care of adults with commonly seen illnesses. Candidates will take part in cnat review conferences, rounds and consultations as directed by the supervising faculty. Successful completion of all coursework through semester 6. Restrictions AU 52 Level B, Prerequisites: Pharmacy 325 concurrent enrollment in Pharm 420 (Fall) and Pharm 485P (Winter) Offered: Fall/Winter

**7407P General Medicine II (Ambulatory Care) (6).** The candidate will spend one month in a patient-care service which is dedicated to the care of the ambulatory patient. Emphasis of study will be on pharmacotherapy in adult patients. Candidates are expected to become involved in the provision of primary care, medication maintenance activities and improvement of rationale drug therapy in the practice environment. Strong emphasis is placed on patient counseling and interviewing skills. Required rotation. Prerequisite: Successful completion of all coursework through semester 8. Restrictions: AU 52 Level C Offered: Fall/Winter

**7409P Health Systems Clerkship (4).** The candidate will spend one month assigned to a health system site. Emphasis of study will be on the organizational, technical and administrative aspects of providing comprehensive pharmaceutical services in a health system. Clinical responsibilities will be maintained throughout the rotation. Candidates will take part in department activities to enhance understanding of the integration of all aspects of pharmaceutical care within the department and other services in the facility (i.e. departmental planning, committee activities, drug distribution, staff supervision and quality assurance programs, formulary management.) Restrictions: AU 52 Level C Offered: Fall & Winter

**7410P General Medicine III (4).** Continuation of Required General Medicine series. Required rotation. Offered: Fall/Winter Restrictions: AU52 Level C

**7412P Community Pharmacy Practice Clerkship (4).** The candidate will spend one month assigned to a faculty member whose practice is based in a community setting. Emphasis of study will be on the organizational, technical and administrative aspects of providing comprehensive pharmaceutical services to patients in a community practice. Clinical responsibilities will be maintained throughout the rotation. Candidates will take part in all aspects of pharmaceutical care within the practice (i.e., distribution, counseling, provision of drug information, operations management and practice development). Required rotation. Offered: Fall & Winter Restrictions: AU 52 Level C

**7414 Professional Skills Development II (3).** Students will apply communication skills from prerequisite course work and develop new skills that allow them to provide pharmaceutical care to their patients. Emphasis of study includes: patient interviewing, profile review, counseling, ethical challenge in patient care, communication dilemmas and communicating with other health-care providers and patients with special needs. Additionally, students will be assessed on writing and presentation skills from a range of assignments. One 2 hour lecture and 1.5 hour small group discussion are held per week. Prerequisites: Pharm. 101 and ComS 110. Offered: Winter

**7418P Elective Clerkship I (4).** Elective experiences are an essential element to the candidates' training designed to develop areas of personal interest and to expand their understanding of professional opportunities. These rotations revolve around areas of basic science, clinical practice, research and administration. Candidates may repeat required rotations as electives or may approach faculty to tailor an elective experience to develop an area of interest. Required rotation. Prerequisites: Successful completion of all coursework through semester 8 Offered: Fall/Winter Restrictions: AU 52, Level C

**7419P General Medicine IV (4).** Continuation of General Medicine series. Required rotation. Prerequisites: Successful completion of all coursework through semester 8

**7420 Health Assessment & Pharmacotherapy II (7).** This course is designed to foster the student's ability to provide pharmaceutical care. Patient assessment is an integral part of the pharmaceutical care process. Students are expected to continue developing and applying problem-solving strategies to complex disease states commonly encountered in pharmacy practice. UP to seven hours of lecture and two hours of small group discussion can occur per week. Evaluation of skills necessary to assess patients will occur throughout the semester. Students are also expected to complete four examinations during the course. Prerequisite: Pharm 303, 405, 362 and Nurs 548. Concurrent enrollment in Pharm 406P required. Offered: Fall

**7420P Elective Clerkship II (4).** Elective experiences are an essential element to the candidates training designed to develop areas of personal interest and to expand their understanding of professional opportunities. These rotations revolve around areas of basic science, clinical practice, research and

administration. Candidates may repeat required rotations as electives or may approach faculty to tailor an elective experience to develop an area of interest. Optional rotation.

**7421P Elective Clerkship III (4).** Elective experiences are an essential element to the candidates training designed to develop areas of personal interest and to expand their understanding of professional opportunities. These rotations revolve around areas of basic science, clinical practice, research and administration. Candidates may repeat required rotations as electives or may approach faculty to tailor an elective experience to develop an area of interest. Optional rotation.

**7424 Introduction To Natural Product Therapeutics (2).** The course is intended to provide students with an awareness of important issues about dietary supplements to consider when providing pharmaceutical care to patients. Students will learn communication skills specific to discussing supplement use with patients, basic clinical knowledge to avoid or minimize the risk of harm with common dietary supplements, and the skills to retrieve and interpret reliable information to be able to make decisions about new or unfamiliar supplements. Prerequisite: Fourth Prof Year CO-Requirement: Phar 420 Restrictions: AU 52 Level B Offered: Fall

**7427 Hospital Pharmacy (2).** Methods utilized by hospitals to distribute medication, as well as the fiscal and administrative aspects of such systems. Students who enroll in this course are to spend at least one four-week portion of the Pharmacy Externship in a general hospital setting unless excused by instructor. Elective. Offered: Winter Restrictions: AU 52 Level B

**7428 Veterinary Pharmacology (3).** Pharmaceutical preparations used in veterinary medicine. Elective.

**7449 Clinical Economics & Medical Decision-Making (3).** This three-hour course is a critical review and evaluation of the economic analysis of medical decision-making. An emphasis will be placed on the critical evaluation of recent literature assessing medical decision-making through the use of such tools as cost-benefit analysis, cost-effectiveness analysis, cost-minimization, markov modeling, bayesian statistics. Prerequisite: Third Yr or Graduate Restrictions: AU 52 or AU 68 91 Level A & B only or instructor consent Offered: Fall

**7451 Pharmacy Law And Ethics (2).** Laws and ethics which affect the practice of pharmacy. Two hours lecture and/or discussion per week. Prerequisite: Completion of all required courses through Sem 6 Offered: Fall Restrictions: AU 52 Level B

**7463 Toxicology (2).** Fundamentals of toxicology, including discussion of the general classes of poisonous substances, their physiological effects, and methods of treatment. Prerequisite: Pharmacy 361 Offered: Winter Restrictions: AU 51 & AU 52 Level A

**7465 Economics Of Health & Medicine (3).** An economic analysis of the development of the medical market; organized medicine ad the structure of existing health delivery systems. The problems of the medical market will be analyzed; the role of insurance will be investigated and alternative public policies will be studied. Prerequisites: Upper level or permission of instructor Restrictions: AU 52 Offered: Fall

**7467 Religion, Culture And Health (3).** This course addresses the impact of religious beliefs, education, and cultural practices on health and healthcare issues pertinent to various segments of our society. Restrictions: Instructor consent required. Offered: Fall

**7485P Health Assessment & Pharmacotherapy III (7).** This course is designed to foster the student's ability to provide pharmaceutical care. Patient assessment is an integral part of the pharmaceutical care process. Students are expected to continue developing and applying problem-solving strategies to complex disease states commonly encountered in pharmacy practice. UP to seven hours of lecture and two hours of small group discussion can occur per week. Evaluation of skills necessary to assess patients will occur throughout the semester. Students are also expected to complete four examinations during the course. Prerequisite: Pharm 420. Concurrent enrollment in Pharm 326 and Pharm 406P required. Offered: Winter

**7489AB Special Topics In Pharmacy (1-5).**

**7489E Special Topics In Pharmacy (1-5).** A course designed to deal with a topic which is not available in the regular course offerings. Topic, instructors and prerequisites to be listed in the term bulletin. Elective.

**7489M Special Topics In Pharmacy (1-5).** A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

**7489N Special Topics In Pharmacy (1-5).** A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

**7489O Special Topics In Pharmacy (1-5).** A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

**7489P Special Topics Pharmacy (1-5).** A course designed to deal with a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the term bulletin. Elective.

**7497E Directed Individual Study-Clinical Pharmacy (1-4).** Study in areas of special interest under individual faculty direction. Credit/no credit. Written permission of instructor required. Elective. Not to exceed five semester credits. Offered: Each term. Prerequisite: Consent number required Restrictions: AU 52

**5507 Basic Pharmacology (3).** Basic pharmacological concepts and important classes of pharmacologic agents. Prerequisites: Human anatomy, physiology and biochemistry. Fall, each year.

**5509 Basic Toxicology (3).** Principles of general toxicology and toxicology of industrial and household chemicals, agricultural agents, social poisons, and selected therapeutic agents. Prerequisites: Human Anatomy, Physiology, Biochemistry and PHARM 507 or 519. Offered: Fall, each year.

**5515 Drug Absorption, Distribution, Metabolism And Excretion (3).** A course dealing with the absorption, physiologic distribution, metabolism and excretion of drugs and other organic compounds and factors which influence these events. Three hours lecture a week. Fall, odd year.

**5519 Pharmacology I (4).** Pharmacology of medicinals with emphasis on basic concepts, the autonomic nervous system, and cardiovascular agents. Four hours lecture per week. Prerequisite: Human anatomy, physiology and biochemistry. Offered: Fall.

**5520 Pharmacology II (5).** Pharmacology of medicinals with emphasis on chemotherapeutic agents, drugs acting on the renal system, and drugs for endocrine disorders. Four hours lecture per week. Prerequisite: PHARM. 519. Offered: Winter.

**5521 Advanced Organic Medicinal Chemistry (3).** Chemistry, physicochemical properties, mechanism of action and structure-activity relationships of organic drug molecules. Fall, odd years.

**5527 Analytical Methods (3).** A detailed study of the methods used to detect, identify, and quantitate drugs, small molecules, enzymes, proteins, and biological molecules. The statistical foundation, core concepts, and practical implementation of analytical methods are areas of emphasis. State-of-the-art instrumentation and recent technological developments are also presented, including biotechnology based methods such as proteomics methods and quantitative PCR. Prerequisites: Two hours of lecture and three hour demonstration/laboratory a week. Offered: Fall

**5531 Physical Pharmacy Equilibria (3).** Advanced principles of aqueous solutions, acid-base equilibria, solubility and complexation. Mathematical solutions and state-of-the-art research applications. Three hours lecture a week. Prerequisite: B.S. in Pharmacy Permissions of instructor. Winter, even years.

**5533 Biopharmaceutics And Pharmacokinetics (4).** Study of (1) the kinetics of absorption, distribution, and elimination of drugs and the relationship of kinetic parameters to dosage form, biological factors, and dosage regimen; (2) the development of various models for pharmacodynamic-pharmacokinetic correlations. Four hours lecture. Prerequisite: MATH 345 (Ordinary Differential Equations) or equivalent. Fall, even years.

**5550 Stability Of Pharmaceuticals (3).** The course provides instruction in the processes responsible for instability of pharmaceuticals. Course content includes, but is not limited to, instability due to light, oxygen, and metal ions; the effect of temperature on the rate of drug decomposition; the effect of dielectric constant and ionic strength on degradation; and physical and chemical instability of newer polypeptide drugs. In addition, practical strategies to prevent instability of the active compound and excipients used in pharmaceutical formulations is provided. Prerequisites: MATH Calculus (required) & Ordinary Differential Equations (recommended); Course Grade of "B" or better in both PHAR 202 and 203; Restriction: Consent of instructor Offered: Fall semester even-numbered year.

**5555 Religion, Culture And Health (3).** This course addresses the impact of religious beliefs on the culture practices of contemporary society, and aims at examining the relationship between these beliefs, modern sciences and health. It will be offered to all students, in Fall semesters. No prerequisites. Offered: Every Fall

**5580A Seminar In Pharmaceutical Sciences (1).** Enrollment and participation required of all graduate students in the School of Pharmacy during each semester of graduate study. One hour each week. This course is graded on a credit/ no credit basis. Offered: Fall and winter.

**5580C Seminar In Pharmacology/Toxicology (1).** Enrollment and participation required of all graduate students in the School of Pharmacy during each semester of graduate study. Credit/no credit. One hour each week. Fall & winter.

**5590A Special Topics Pharmacy (1-3).**

**5590B Special Topics Pharmaceutical Chemistry (1-3).**

**5599A Research And Thesis Pharmacy (1-9).**

**5599B Research And Thesis Pharmaceutical Chemistry (1-9).**

**5599C Research And Thesis Pharmacology (1-9).**

**5606 Biochemical Toxicology (3).** Recent advances in organ-specific toxicity and the mechanisms of toxicity of drugs and environmental chemicals. Prerequisite: Consent of instructor. Winter, odd years.

**5615 Methods In Pharmacology And Toxicology (3).** Exposure to some of the techniques employed in research in pharmacology and toxicology. One hour conference and six hours laboratory per week. Prerequisite: Permission of instructor.

**5616 Molecular Toxicology (3).** Study of the molecular mechanisms of toxicity with emphasis on receptor theory and quantitative structure activity relationships. Three hours lecture or discussion a week. Prerequisites: PHARM 510 and 515 or permission of instructor. Winter, even years.\*

**5625 Synthetic Medicinal Chemistry (3).** Medicinal chemicals are considered as to their synthesis and structure-activity requirements as well as to current research and technology in the area. Offered on demand.\*

**5631 Pharmaceutical Formulations I (3).** Advanced theory and practice of Pharmaceutical formulations including classical and current research. This course will introduce the principles of biomaterial based drug delivery systems and unify knowledge from the fields of biology, materials science, and pharmaceuticals. Prerequisites: B.S in Pharmacy. Offered: Fall, odd years.\*

**5632 Novel Drug Delivery Systems (3).** The course offers up-to-date information about drug transport mechanisms and drug absorption processes across various absorptive membranes i.e., buccal, nasal, dermal, corneal, pulmonary, and oral mucosae. The course material has been designed to provide current ideas and thinking about gene delivery, drug targeting to tumor cells and lipid and carrier mediated drug delivery. It provides unique information about cell culture models as a predictor of drug delivery as well as physical chemistry of surfaces in various microparticulates and lipid emulsion systems.

**5633 Receptor Pharmacology And Signal Transduction (3).** Molecular characterization of drug receptors involving quantitative description of functional studies with agonists and antagonists and binding of ligands to receptors; the molecular structure of receptors and the signaling systems that couple receptors to their pharmacologic functions. Prerequisites: Biochemistry 561/562 and/or Pharmacology 519/ 520. Offered: Every other Winter Other: When we have enough students willing to take course on demand.

**5645 Cancer Biotechnology I (3).** This course is designed to provide a basic understanding of tumor progression, molecular events and signaling mechanisms underlying tumor formation. Epidemiological approaches, etiology, and current methods of detection and diagnosis of cancer will be discussed. Current pharmacological management strategies of cancer and future therapeutic interventions will also be reviewed. Prerequisite: BIOL 202 or equivalent. Fall, even years.

**5646 Cancer Biotechnology (3).** Cancer Biotechnology II will focus on gene regulation of cancer cells with specific pharmaceutical agents. The course will target chemotherapeutic agents and examine current technology in gene therapy. Antisense and ribozyme DNA will also be discussed. Prerequisites: Phar 645 and Cancer Biotechnology I. Winter, odd years.

**5690B Special Topics Pharmaceutical Chemistry (1-3).**

**5690BB Special Topics Toxicology (1-3).**

**5690C Special Topics Pharmacology (1-3).**

**5699A Research And Dissertation - Pharmacy (1-16).**

**5699B Research And Dissertation Pharmaceutical Chemistry (1-16).**

**5699BB Research And Dissertation Toxicology (1-16).**

**5699C Research And Dissertation Pharmacology (1-16).**

**5899 Required Graduate Enrollment (1).**

## Philosophy Courses

**210 Foundations Of Philosophy (3).** An introduction to the principal problems with which philosophy is concerned: methods of inquiry; rules of correct reasoning; analysis of values and value systems; appraisals of basic beliefs and attitudes. Emphasis is on the contribution of important movements and major philosophers and on the relevance of philosophy to religious, political, social, and scientific issues. Prerequisite: Sophomore standing or consent of the instructor.

**221 Contemporary Moral Issues (3).** This course offers a philosophical examination of ethical issues in contemporary society. Topics for discussion include ethical conflicts arising in business and technology, engineering, healthcare, politics, and the environment. Moral concerns addressed may include reproductive rights and technologies, warfare, capital punishment, pornography, privacy, consumerism, euthanasia, sexuality, and animal welfare.

**222 Foundations Of Logic And Scientific Method (3).** An introduction to the logic of evidence. Attention is given to language analysis, fallacies of reasoning, deductive and inductive procedures, subjective factors of reasoning and scientific method. Emphasis is on the practical application of basic principles to the analysis of ethical, economic, political, and scientific physical arguments and theories. Prerequisite: Sophomore standing or consent of the instructor.

**300CK Cluster Course: Controversy And Choice In Life And Science (3).** An examination of advances in the health and life sciences that involve methodological questions about the pursuit and acceptance of theories. Procedures for choosing and conducting research will be analyzed using a model that incorporates existing knowledge. Assessment and management of research are also explored. Participating guests will present solutions derived.

**310WI Ancient Philosophy (3).** A survey of the central figures of classical philosophy: the pre-Socratics, Socrates, Plato, Aristotle, the Stoics, the Epicureans and other philosophers of antiquity. The contributions of major philosophers to the development of science, religion, and social and political theories are studied. Prerequisites: Philosophy 210, 222 or an equivalent and successful completion of the WEPT Offered: Fall.

**315 Logic And Methodology In The Health And Social Sciences (3).** Analysis of the reasoning processes and theory-building procedures specific to the health and social sciences. As its major focus, the course will critically examine the philosophical foundations of the health and social sciences using the case study method. In addition, brief case study analyses of reasoning and theory-construction in the physical sciences will be offered in comparison. Prerequisite: Philosophy 210,222.

**320WI Descartes To Hume (3).** A survey of the central figures of modern philosophy: Rene Descartes, Baruch Spinoza, Gottfried Leibniz, Thomas Hobbes, John Locke, George Berkeley, David Hume and Immanuel Kant. In addition to the philosophical issues of the period, cultural, historical and political matters are considered. A secondary goal is the establishment of the pedigree of contemporary philosophical problems. Prerequisites: Philosophy 210, or 222 or an equivalent and successful completion of the WEPT Offered: Winter.

**321 Ethics (3).** Attention is given to the nature of ethical ideas and the development and history of ethical theory. Prerequisites: Phil 210, 221, or 222, or with permission of instructor.

**325 Aesthetics (3).** The basic problems of aesthetics are examined, with special emphasis on the character of the work of art, the aesthetic response of the viewer, the creative process of the artist, and the nature of aesthetic criticism. These topics are discussed in light of conflicting aesthetic theories. Prerequisite: PHIL 210, 222, or equivalent.

**326 Epistemology: Theories Of Knowledge (3).** A study of the problems connected with the nature of knowledge and human understanding. Prerequisite: Philosophy 210, 222 or an equivalent.

**327 Metaphysics: Theories Of Reality (3).** An investigation of the essential problems regarding the nature of reality in its most general aspects. Prerequisite: Philosophy 210, 222 or an equivalent.

**328 Philosophy In The Middle Ages (3).** The history of philosophy from St. Augustine to William of Ockham, including analysis of the relationships of medieval philosophical developments to earlier and later philosophical developments. Prerequisite: Philosophy 210, 222 or an equivalent.

**329 American Philosophy (3).** The main trends of American thought are covered, with special emphasis on the philosophies of Peirce, James and Dewey. Prerequisite: Philosophy 210 or 215 or 222 or an equivalent.

**330 19Th-Century Philosophy (3).** Following a review of the influence of Kant on European thought, consideration is given to the German idealists, Comte and Positivism, Mill and Empiricism, British Neo-Hegelianism, the rise of Evolutionary Philosophy and Nietzsche. Prerequisites: Philosophy 210 or 215 or 222 or an equivalent.

**331 Philosophy Of Religion (3).** An analysis of the nature and function of religion and its relation to culture. An examination is made of the basic ideas of religion, and special attention is given to the problems of religion and reality, religion and science, and the changing character of religion in our times. No prerequisites.

**332 Existentialism (3).** A study of the development of existentialism. Selections from the works of such thinkers as Kierkegaard, Nietzsche, Sartre, Heidegger, Camus and other related philosophers are considered. Special attention is devoted to the existential movements in literature, social science and medicine. Prerequisite: Philosophy 210, 222 or equivalent.

**333 Social And Political Philosophy (3).** A consideration of representative views of the place of man in contemporary society. Contributions in psychology, political theory, economics, sociology and anthropology are investigated philosophically with a view toward offering a critical appraisal of the nature of man in the human community. No prerequisites.

**334 Philosophy Of Science (3).** A critical analysis of the assumptions, methods and conceptual frameworks of the sciences. The course emphasizes such topics as the influence of theory on observation; the problem of discovery, verification and experimental confirmation; and the relation of scientific language and concepts to ordinary language and beliefs. Prerequisite: Philosophy 222.

**335 Philosophy Of Mind (3).** A study of problems arising in connection with such topics as mental phenomena, the relation of mind to body, free will and determinism, the self and personal identity, and "thinking" machines. Classical and contemporary treatments of such concepts as "mind," "intention," "sensation," "perception," "stimulus," etc., and their relation to action and behavior are considered. Prerequisite: Philosophy 210, 222 or an equivalent.

**336 Philosophy Of Language (3).** A study of the nature and uses of language, with special reference to concepts of meaning, denotation, reference, syntax, name, metaphor, vagueness, and definition. Applications in the fields of psychology, linguistics, anthropology, and literary criticism are examined. Prerequisite: Philosophy 210, 222 or an equivalent.

**337 Philosophy Of History (3).** A discussion of methodological and substantive issues, including the nature of historical explanation, whether history can be a science, and various theories of history such as those of Vico, Hegel, Marx, and Collingwood. Prerequisite: Philosophy 210, 215, 222 or an equivalent.

**338 Philosophy Of Biology (3).** An investigation of methodological and conceptual issues in biology, such as the roles of mechanistic and teleological explanations, reductionism, the nature of evolutionary theories, and the relation between taxonomy and the concept of species. Prerequisite: Philosophy 210, 222 or an equivalent.

**340 Philosophy Of Law (3).** An analysis of major philosophies of law, including methods of justifying legal systems through natural law, legal positivism, sociological jurisprudence, theology, etc. Contemporary legal theories are critically analyzed. Prerequisite: PHIL 210, 222 or an equivalent.

**350 Case Studies In The Methodologies Of Science (3).** Topics in the methodology of science are considered through an examination of case studies in the history of science. Prerequisite: Philosophy 210, 222 or an equivalent.

**360 Current Issues In Bioethics (3).** Alternative approaches to issues such as life and death, human experimentation, the scarcity of resources, contraception, abortion, euthanasia, eugenics, etc. will be discussed critically. Major theories of ethics will be applied to several of the issues in order to have the student develop his or her own approach to ethical decision making in the area of bioethics. No prerequisites.

**370 Environmental Ethics And Policy (3).** Various philosophical approaches to issues such as the value of nature, human obligations to non-human animals, species, ecosystems and future generations; environmental justice; restoration; resource use; environmental politics; and the relation between environmental issues, policy and ethics will be discussed critically. Prerequisite: None Offered: Annually Restrictions: None

**400 Interdisciplinary Studies: Cluster Course Offerings (3).**

**400CJ Cluster Course: Aesthetic Issues In The Arts (3).** Specialists in various art forms (e.g., literature, music, painting) will discuss specific artworks from their own perspective as artists and/or critics. This gives the student first-hand experience of how questions dealt with in the philosophy of art arise. Using this common core of examples, philosophical issues such as relevance of artists' intentions to interpretation and evaluation, the nature of aesthetic value, the nature and significance of comedy, and special issues raised by contemporary developments in the arts are discussed.

**400CO Cluster Course: Issues In Death And Dying (3).** A study of the various philosophical dimensions of death and dying in the history of thought from the pre-Socratics through the contemporary existentialist philosophers. Topics to be critically examined will include the ethical, religious and legal implications of the changing definitions of death, active and passive euthanasia, suicide, the ethical aspects of truth telling, and the impact of technological and scientific advancements as they relate to the rights and dignity of the dying patient and survivors as well as special populations such as children and incapacitated persons. The philosophical dimensions of death and dying will include epistemological, metaphysical, ethical and hermeneutic aspects. Alternate theories and approaches to ethical decision making concerning this important aspect of human existence will be presented.

**423 Symbolic Logic (3).** Advanced analysis of deductive procedures; sentential connectives, quantifiers, classes, and relations; the notion of formal system; introduction to axiomatics and metalogical proofs. No prerequisites.

**424 Art, Aesthetics And Society (3).** This course examines various moral and social issues concerning the arts and the aesthetics of our environment, bringing in case studies of particular artworks. It explores the relationships between aesthetic and moral value in the case of censorship, the effect of images on the public, and the aesthetics of the natural environment. It also looks at how public art is supposed to serve the public, and ethical dilemmas faced by art museums.

**425 History Of Aesthetics (3).** An examination of the major thinkers in the history of aesthetics, such as Plato, Aristotle, Kant, Nietzsche, Tolstoy and Croce. The focus will be on how their ideas bear on topics which will interest anyone desiring to understand the origin, nature and value of the arts. Examples of these topics are the relationships among art, knowledge and morality; the natures of originality, creativity and genius; the importance of form, content and expression of emotions; and standards of taste and the claims of criticism. Prerequisite: Philosophy 210, 222 or an equivalent.

**430 Plato (3).** Selected dialogues of Plato are studied with a view to understanding Plato's philosophy and its position in the world of Greece and antiquity. Plato's philosophy is also examined with reference to his place in the Western tradition and in modern philosophy. Prerequisite: Philosophy 210, 222 or an equivalent.

**431 Aristotle (3).** Selected portions of Aristotle's works on logic, metaphysics, science, ethics, politics, and poetics are studied with a view to understanding Aristotle's philosophy and its position in the world of Greece and antiquity. Aristotle's philosophy is examined with reference to its place in the Western tradition and in modern philosophy. Prerequisite: Philosophy 210, 222 or an equivalent.

**435R The British Tradition In Philosophy (3).** This course is a survey of major British philosophers. Among those who will be studied are Thomas Hobbes, John Locke, David Hume, J.S. Mill, E.H. Bradley, and Bertrand Russell. The influence of British philosophy on other philosophical movements will also be included. Prerequisite: Philosophy 210, 215, 222 or an equivalent.

**436 Kant (3).** A study of selected writings of Immanuel Kant, with particular emphasis on the epistemological, metaphysical and ethical aspects of Kant's philosophy; an examination of Kant's significance within contemporary thought. Prerequisite: Philosophy 210, 222 or an equivalent.

**445 20Th-Century Philosophy (3).** A study of the development of philosophy in the 20th-Century, treating such movements as Idealism, Realism, Logical Positivism, Existentialism, Phenomenology, Pragmatism, and Analytic Philosophy. Prerequisite: Philosophy 210 or 215 or 222.

**448 Recent Ethical Theories (3).** An analysis and investigation of modern and contemporary ethical theories. Among the theories considered are ethical relativity, the emotive theory, utilitarianism, neo Kantianism, and situation ethics. Prerequisite: Philosophy 321.

**450WI Ethics And Government (3).** An examination of ethical issues related to government, with the primary focus on national and local governmental bodies in the United States. Ethics in the executive, legislative and judicial branches are examined. Ethical standards for elected officials and appointed public servants are reviewed. Attempts to "legislate morality" are considered. The course includes a historical review of ethics and government and an analysis of the legal implications of legislation regarding ethics in the executive branch. Prerequisite: Philosophy 210 or permission of the instructor. Offered: On demand.

**480 Selected Topics (1-3).** Each time this course is offered a particular philosopher or particular area of philosophy will be the topic of discussion. The course may be repeated for credit when the topic varies. Prerequisite: Philosophy 210, 222 or an equivalent, depending on the topic.

**480A Selected Topics (1-3).**

**480B Selected Topics (1-3).**

**490 Special Topics And Readings (1-3).** Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies. Prerequisite: Philosophy 222, 310, 320, 321 or 423.

**490B Special Topics And Readings (1-3).** Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies. Prerequisite: Philosophy 222, 310, 320, 321 or 423.

## Physical Education Courses

**106 Badminton (1).** This course teaches the basic rules, skill techniques, terminology and strategy for badminton. Fall/Winter.

**125 Golf (1).**

**145 Social Dance (1).**

**149 Basketball And Team Handball (1).** This course teaches the basic rules, skill techniques, terminology and strategy for basketball and team handball.

**153 Volleyball (1).**

**157 Weight Training (1).**

**158 Advanced Weight Training (1).** This course teaches free weight training exercises that are used within a well-balanced training program, and provides experience needed to design weight training programs. Prerequisites: PE 157 or permission of instructor.

**159 Jogging (1).**

**174 Cross Training (1).** This course provides knowledge, skill and opportunity to improve primary sport/activity performance or overall fitness, through designing and participating in a variety of cross training physical activities.

**175 Lifetime Fitness (1).** This course is designed to expose students to facts about and experiences in dealing with motor, physical, physiological, psychological and nutritional aspects of the human being. Specific areas of study include hypokinetic disease, physical fitness, nutrition and wellness concepts. Fall/Winter/Summer

**175L Lifetime Fitness Lab (1).** This course is designed to provide supervised activity experiences including self assessment and self directed physical exercise programs that are coordinated with the lecture portion of the course.

**180 Beginning Swimming (1).** This course is designed to equip each student with basic water safety skills and knowledge in order to make them reasonably safe while in, on or about the water.

**181 Fitness Swimming (1).** This course is designed to challenge and encourage each student to develop an individualized fitness program based on personal goals. Lap swimming as well as water exercise will be incorporated in the class.

**189 Special Topics: Activity (1).** A course designed to deal with a special activity class which is not available in the regular course offerings. Activity class, instructors and prerequisites to be listed in the semester bulletin.

**189BE Special Topics: Activity (1).**

**189KT Special Topics: Activity (1).**

**189RT Special Topics: Activity (1).**

**189SS Special Topics: Activity (1).**

**189WJ Special Topics: Activity (1).**

**189WM Special Topics: Activity (1).**

**189XX Special Topics: Activity (1).**

**189XY Special Topics: Activity (1).**

**189YO Special Topics: Activity (1).**

**206 First Aid And Safety (1).** Methods of administering first aid in case of accident or sudden illness; bandaging; resuscitation; and caring for wounds and injuries. Safety in schools will be stressed. (Elective).

**207 Outdoor And Leisure Pursuits (2).** Designed to acquaint students with opportunities for leisure and recreational activity in the outdoors. Emphasizes safety measures and planning skills as well as development of particular movement skills and knowledge about associated wildlife.

**212 Self Defense (1).** Study in the theory of self defense. Content focuses on: technique for eliminating dangers from daily living, methods for recognizing and avoiding dangers, and skills and strategies for employing physical defense when necessary.

**312 Physical Education For The Elementary Schools (1).** This course identifies the physical education needs of the elementary school child in relation to his total development with emphasis on methods and materials. Must be taken concurrently with PE 312L. Prerequisite: Elementary Education Major ;Required.

**312L Laboratory Experiences In Physical Educ For The Elementary School (1).** This course consists of laboratory teaching experiences, with skill theme combinations of games, gymnastics, dance & fitness. Must be taken concurrently with PE 312.

**323 Nutrition For Fitness And Sport (3).** This course examines the role nutrition, complemented by exercise, may play in the enhancement of fitness and sport performance. Considerable attention will be devoted to the use of nutritional ergogenic aids with reference to athletic performance. Prerequisite: LS PHYS 117, LS ANAT 118, LS ANAT 118L or permission of instructor. Offered: Fall and Winter.

**361WI Sociology Of Sport And Exercise (3).** The critical examination of the function of sport in the American culture, in an interdisciplinary fashion, with a focus on the contemporary scene. The work of the course will include readings on sociological issues of sport and exercise, the writing of mini-research papers, and a long paper with a presentation. Prerequisite: Introduction course in sociology Offered: MW 1pm-2:15 (Winter)

**389 Special Topics In Health And Physical Education (1-3).** This course is designed to offer a topic which is not available in the regular course offerings. Topics, instructors and prerequisites to be listed in the semester bulletin.

**401 Health Teaching In The Schools (1).** Study of school health programs with emphasis on methods and materials for health and safety instruction in grades K-8. Must be taken concurrently with PE 401L. Prerequisites: Elementary or Physical Education Teaching major.

**401L Health Teaching In The Schools Lab (1).** Students will attain beginning level competence in skills related to teaching health in schools,

including planning, preparation and presentation skills. Computer skills will be used to search internet, e-mail, and develop a computer generated presentation.

**499 Internship (3-6).** Extensive experience in a practical situation under supervision of university faculty and on-site personnel. Breadth and intensity of involvement will depend on student ability. Prerequisites: Upper Division Major; consent of instructor.

## Physical Science Courses

**110 Foundations Of Physical Sciences I (4).** Fundamental principles and concepts of the various physical and mathematical sciences, integrated by the history and philosophy of science. Fall and winter semester.\*

**110L Foundations Of Physical Sciences, Laboratory I (1).** General laboratory and discussion sessions on various topics in the physical and mathematical sciences.

**410 Selected Topics In Contemporary Science (3).**

**410P Selected Topics In Contemporary Science (3).**

**410PF Selected Topics In Contemporary Science (3).**

**435P Selected Topics In The History Of Science (3).**

**435PF Selected Topics In The History Of Science (3).**

## Physics Courses

**102 Introduction To Physics (3).** Introduction to fundamental concepts and basic laws of physics with daily life examples. Simple problem solving techniques. This course will meet the area requirements for the natural sciences. Prerequisite(s): None.

**140 How Things Work (3).** A course intended for liberal arts students focusing on the principles of operations, histories, and relationships of objects from our daily environment. The areas of investigation include mechanical and thermal objects, electromagnetism, light, special materials and nuclear energy. This course will meet the area requirement for natural sciences. Offered: Every Winter.

**140L How Things Work Laboratory (1).** Simple experiments based on everyday experiences are analyzed in terms of conceptual physics. The material includes elements of mechanics of a rigid body, elastic properties of matter, fluid dynamics, thermodynamics, electromagnetism, optics and modern physics. The laboratory supplements the PHY 140 lecture and must be taken concurrently with the lecture. Offered: Every Winter. Restrictions: Concurrent with Physics 140

**150 Introduction To Astronomy (3).** A survey of modern topics in astronomy covering cosmological origins, galaxy formation, stellar structure and generation of the chemical elements found in planetary systems. Exotic objects such as supernovae, white dwarves, black holes, neutron stars and quasars will be introduced as indicators of large-scale, energetic astronomical processes. This course will meet the area requirement for the natural sciences. Prerequisite(s): College Algebra or Equivalent. Offered: Fall Even Years.

**160 Vision and Imaging: From Light to Electrons (3).** This course is intended for non-Physics majors who wish to learn about recent development in the field of physics. Students will explore light and electrons and learn how they are used to visualize nature from microscopic to macroscopic scales. The underlying physics principles in various imaging techniques and the concept of optics will be explained. Intriguing images will be shown and interpreted, to demonstrate that physics is fascinating and has great impact on our lives. No specific mathematics is required for taking this course. This course will meet the area requirements for the natural sciences.

**210 General Physics I (4).** Fundamental principles of physics including mechanics, heat and energy, and applications of these principles to different interdisciplinary natural science. Prerequisite or corequisite: College mathematics including trigonometry and algebra or equivalent. Three lectures and one two hour laboratory period per week. Offered: Fall and Winter.

**220 General Physics II (4).** Fundamental principles of physics including sound, electricity, magnetism, optics, elementary modern physics, and applications of these principles to different interdisciplinary natural science. Prerequisite: Physics 210 or equivalent or consent of instructor. Three lectures and one two hour laboratory period per week. Offered: Fall and Winter

**240 Physics For Science And Engineering I (5).** Introduction to mechanics, wave motion and sound and heat and thermodynamics. CoRequisite: Calculus I Offered: Fall and Winter

**250 Physics For Science And Engineering II (5).** Introduction to electricity and magnetism, light and optics and modern physics. Prerequisite: Physics for Science and Engineering I. Corequisite: Calculus II or consent of instructor. Four hours lecture and two hours laboratory per week. Offered: Fall and Winter.

**260 Introduction To Stellar Astronomy (3).** An introduction to such topics as the properties of stars, their evolution, galaxies, nebulae, quasars and cosmology. Offered: Fall-Odd Years.

**265L Astronomy Laboratory (2).** Experiments in planetary motion, apparent solar time, stellar spectra, stellar magnitudes, binary stars, telescopic observations of the sun, moon and planets. Prerequisite: Physics 260 or concurrently and consent of instructor. Offered: On demand.

**270 Introduction To Solar System Astronomy (3).** A non-mathematical introduction to the astronomy of the solar system including the properties of the sun, planets and their satellites. Offered: On Demand.

**280 A Survey Of Astronomy (4).** A one semester non laboratory science course intended for non-science majors which will cover the early history of Greek astronomy, the advances of the Renaissance, the physics of astronomy, the structure of the universe both our local solar system and on a galactic scale, and current development in the dynamic field of astronomy. Offered: On Demand.

**301A Basic Science Physics (1).** Selected topics from physics; their development and application to everyday problems. Discussion and demonstrations. Intended for teachers in the elementary schools. Offered: On Demand.

**310 Mechanics I (3).** Advanced statics and dynamics of particles and rigid bodies including gravitation. Prerequisites: One year of physics and calculus or consent of instructor. Offered: Fall.

**311 Mechanics II (3).** Continuation of Mechanics I, including mechanics of continuous media, Lagranges equations, tensor algebra and theory of small vibrations. Prerequisite: Mechanics I or consent of instructor. Offered: Winter.

**350 Modern Physics With Engineering Applications (3).** An introduction to quantum and relativistic effects with applications in solid state, atomic and nuclear physics and in engineering problems. Prerequisites: Math 345 and Physics 240-250. Offered: Winter Semester.

**380 Modern Developments In Physics I (4).**

**381 Modern Developments In Physics II (4).**

**385L Elementary Circuits Laboratory (3).** An introduction to analog and digital electronics. The topics covered include passive filters, operational amplifier applications, digital logic, and digital timing circuits. Prerequisites: Must be taking or have completed six hours of Physics courses numbered 300 or above. Offered: Winter.

**395L Computer Interfacing Laboratory (3).** An introduction to computer interfacing through the use of serial and parallel ports, and digital-to-analog and analog-to-digital converters. The course also introduces digital filtering techniques, data analysis techniques, and graphical presentation data. The programming techniques are taught using high level programming languages currently used in research and development labs. Prerequisite: Physics 385L Offered: Fall Even Years.

**410 Thermal Physics (3).** A study of the laws of thermodynamics and their applications, with an introduction to kinetic theory. Statistical methods are emphasized. Prerequisites: One year of physics and calculus. Offered: Fall Odd Years.

**413 Computational Physics (3).** Introduction to scientific programming and numerical analysis with applications to physics. Prerequisites: Undergraduate mathematics through differential equations plus one year of physics or consent of instructor. Offered: Even Years.

**420 Optics (3).** Geometrical optics, physical optics and introduction to selected topics in modern optics. Prerequisites: One year of physics and Calculus I and II. Offered: Fall Odd Years.

**425LW Optics Laboratory (3).** Fundamental experiments with geometrical and physical optics. Prerequisite: Must be taking or have completed Physics 420 and successful completion of the WEPT (effective FS93). Offered: Winter Even Years.

**430R Methods Of Theoretical Physics I (3).** Introduction to mathematical and numerical methods used in the theoretical modeling of physical systems. Treatments of linear systems in scientific and engineering applications will be emphasized. Prerequisite: MATH 345. Offered: Fall.

**431 Methods Of Theoretical Physics II (3).** A continuation of Physics 430R stressing applications to Physical and engineering problems. Prerequisite(s) 430R Offered: Winter

**445L Modern Physics Laboratory (3).** Classical experiments in modern physics including such topics as hydrogen spectra, Faraday effect, holographs,  $e/m$  of the electron, the photoelectric effect, the Zeeman effect and the Franck-Hertz experiment. Four hours of laboratory work per week. Must have completed WEPT. Corequisite: Physics 350. Offered: Winter-Even Years.

**450 Introduction To Solid State Physics (3).** Crystal structure and binding, elementary lattice dynamics and energy band theory. Free electron models, theory of semiconductors and metals. Prerequisites: Mechanics I or Thermal Physics, or consent of instructor. Offered: Fall-Even Years.

**460 Electricity And Magnetism I (3).** Static electric fields in free space and material media; Kirchoff's laws and direct current circuits; static magnetic fields. Prerequisite: One year of physics and calculus. Offered: Fall.



**461 Electricity And Magnetism II (3).** Magnetostatics; alternating current circuits; Maxwell's equations and radiation; special relativity; topics in electromagnetism. Prerequisite: Physics 460 or consent of instructor. Offered: Winter.

**472 Introduction To Quantum Mechanics (3).** Introduction to the theory and applications of quantum mechanics with emphasis on the mathematical treatment of modern physics. Prerequisite: Physics 350 or consent of instructor. Offered: Winter.

**475L Nuclear Physics Laboratories (3).** Experiments concerning the properties of alpha, beta and gamma radiation, their emission and interactions with matter. Must have completed WEPT. Four hours of laboratory work per week. Offered: Winter-Odd Years.

**480 Electron and Scanning probe Microscopy (3).** The principles of electron optics, diffraction, and sample preparation, image interpretation and photographic processing are taught; student operation of the electron microscope and individual projects are emphasized. Must have completed WEPT. Prerequisite: Consent of instructor. Offered: Fall.

**481 Electron Microscopy II (3).** Graduate student research applications of electron microscopy to special projects are emphasized. Prerequisite: Physics 480. Offered: On Demand.

**482 X-Ray Analysis: Theory And Practice (3).** The physics of x-rays, methods of their detection, crystallography, x-ray diffraction, x-ray spectrometry, and sample preparation. Emphasis on laboratory techniques and the use of x-ray analysis as an analytical tool. Two hours lecture and two hours laboratory per week. Prerequisites: Consent of the instructor and senior departmental standing. Offered: On Demand.

**490 Special Problems (1-3).** The kind of problem and the amount of credit to be given by arrangement with the department. Prerequisite: Consent of the department. Offered: On Demand.

## Piano Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Piano I (2-4).**

**102 Freshman Piano II (2-4).**

**201 Sophomore Piano I (2-4).**

**202 Sophomore Piano II (2-4).**

**301 Junior Piano I (2-4).**

**301J Junior Piano I (Jazz) (2).**

**302 Junior Piano II (2-4).**

**302J Junior Piano II (Jazz) (2).**

**401 Senior Piano I (2-4).**

**401J Senior Piano I (Jazz) (2).**

**402 Senior Piano II (2-4).**

**402J Senior Piano II (Jazz) (2).**

## Political Science Courses

**210 American Government (3).** American government and politics, with special reference to the U.S. Constitution. This course meets the state requirement for study of the U.S. and Missouri Constitutions. Prerequisite: None. Offered: Every semester.

**220 Introduction To Comparative Politics (3).** An analysis of the way political institutions, processes and policies vary from country to country. Emphasis on politics in Europe, with attention to other nations when making comparisons. Prerequisite: None.

**300 Interdisciplinary Studies: Cluster Course (3).** Provides an overview of the interrelationships of the humanities and social sciences. Offered in conjunction with other departments.

**300CS Cluster Course: History Of Russian Culture (3).**

**301 Western Political Philosophy (3).** An examination of the major theories of politics from Plato to today.

**302 Political Research And Analysis (3).** The Internet and CD-Rom have opened up many sources of political information, and the computer facilitates the running of political simulations. The computer also makes it possible for many to use and to understand basic statistical techniques for the first time. In this course we will explore these and other techniques of political research and analysis. Prerequisites: None.

**303 Introduction To Comparative Politics (3).** An analysis of the way political institutions, processes and policies vary from country to country. Emphasis on politics in Europe, with attention to other nations when making comparisons.

**304 Politics Of The Developing Nations (3).** An analysis of the evolving political systems of the new nations in Africa, Asia and Latin America. Social, cultural and economic influences on political processes and policies are explored.

**305 Survey Research And Analysis (3).** Students will learn the process of research design and how one designs and implements surveys. The students will also learn how one analyzes survey data. Prerequisite: None Offered: Annually

**306 International Relations (3).** An analysis of relations among nations, with emphasis on structures of international power, causes of war, and approaches to peace.

**307 The United Nations: Politics And Economics (3).** This interdisciplinary course covers many facets of the United Nations, acquainting students with its structure, its operations and its involvement in international events, past and present. It merges politics, economics issues and the history of the UN in an effort to understand more fully the UN's role in international diplomacy. Students in this course will have an opportunity to participate in various Model UN conferences during the year. Offered: Fall Semester

**308 Politics, Parties And Pressure Groups (3).** This course is an introduction to parties and interest groups, and their important role in the political process. We will examine the formation, organization, activities, and impact of political parties and interest groups in the US and in comparative perspective.

**309 Public Opinion And Voting Behavior (3).** A study of the formation, distribution and expression of public opinion and partisanship in the American political system.

**310 Parliamentary Systems (3).**

**311 Comparative Politics: Techniques Of Social Control (3).** An analysis of techniques used by regimes to perpetuate themselves in office and the effects of these techniques upon constitutional continuity, ideology, and social and economic change.

**312 Mass Media And American Politics (3).** An examination of the role of mass media in American electoral and policy processes.

**313 Politics In The American States (3).** A study of the structures, functions, and politics of the institutions of American state governments and an assessment of their role in the federal system. This course is particularly interested in the extent to which political economy and political culture, broadly defined, influence public policy within the states. Prerequisite: None.

**314 Local Governments (3).** The politics, law organization, and operation of city governments in relation to such common urban problems as transportation, planning, public safety, public works, housing, finances, and other local issues and services. This course analyzes the role played by our 82,700 local governments.

**315 Public Policy (3).** A broad introductory overview of decision theories, governmental structures, and policy processes. Emphasis on the organizational and societal context of public formulation, implementation, and evaluation. Prerequisite: None.

**316 Terrorism And Political Violence (3).** This course explores terrorism and armed struggle from theoretical and historical perspectives, and analyzes a number of violent movements with nationalist, ideological, and religious motivations. Offered: As Needed

**317 Revolutionary Origins Of The Modern State (3).** An examination of the radical changes in economics, the social order, institutions and ideologies since the French Revolution which have led to the rise of totalitarianism and unstable democratic political systems in the advanced industrial nations.

**318 Political Psychology (3).** The field of political psychology is an interdisciplinary field that draws on both psychology and political science to address topics in the political world. This course will focus on a variety of topics including inter-group conflict, stereotyping and prejudice, political socialization, attitude formation and change, political communication, decision heuristics and biases, public opinion, and the future of political psychology.

**319 Campaigns And Elections (3).** This course will examine the role of campaigns in determining the outcome of both congressional and presidential

elections and the way that electoral rules structure both campaign strategies and electoral outcomes. This course focuses on topics such as the role of the media, campaign advertising, campaign financing, public opinion, registration requirements, and the role of interest groups.

**326 Racial & Ethnic Politics (0-3).** This course provides an analysis of the political behavior and roles of racial and ethnic groups in the American political system. Theoretical, empirical, and practical issues of race, racism, and race relations are examined (in the political context). Public policy, electoral behavior, and political institutions are also investigated with regards to the empowerment and political incorporation of communities of color

**327 Nationalism And Ethnic Conflict (3).** Nationalism and ethnicity serve as a basis for group identification, political mobilization, terrorism, war, and genocide. This course provides students with theoretical frameworks for analyzing nationalism and ethnic strife, and explores case studies to test our assumptions and theories about nationalist violence. Offered: As needed

**328 State And Local Government (0-3).** In this course, we will cover the major issues, institutions, and political actors involved with state and local government. The class will expose you to how American federalism impacts states, metropolitan regions, and cities. The politics of governance, agenda setting, and public budgeting are also examined. The main objective is to develop a good understanding of the literature (theoretically, empirically and practically) on state and local politics.

**336 American Foreign Policy (3).** Understanding the contemporary debate over American foreign policy in terms of the premises and perspectives of several competing schools of thought.

**338 Religion And Politics (3).** This course explores the rise of Islamic, Christian, and Jewish fundamentalisms in the modern world and assesses their impact on states, societies, and cultures around the globe. It explores how faith can be used to organize and legitimate social activism, liberation movements, and political terrorism. Offered: As needed

**341 The Theory Of Democracy (3).** Analysis of the writings of philosophers like Hobbes, Locke, Rousseau, Marx and Nietzsche who developed and analyzed the ideas associated with modern democracies.

**342 American Political Thought (3).** A study of American political ideas, with emphasis on current problems and conflicts, and intellectual responses to social change.

**343 The Politics Of Social Security (3).** A study of the American Social Security system, including its history, principles, and prospects for the future.

**344 Jurisprudence (3).** An examination of theories of law from the viewpoint of political science.

**345 The Politics Of Sex And Gender (3).** Just as there is a politics of class and race, so is there a politics of sex and gender. Though gender roles and sexual practices seem as though they are natural, post-modern theorists argue that they are social constructions that change over time, privilege some groups, and disadvantage others. In this course we will examine the debate between opposing viewpoints and discuss how and where political decisions are made in this area. Prerequisite: None.

**346 Introduction to the Trial Process (3).** This course examines the trial process. We examine both about the structure of the judicial system and the different elements of a trial. Students will also participate in a mock trial using the American Mock Trial Associations annual problem.

**347P Crime and Civil Liberties (3).** A study of civil liberties in American society, emphasizing their role in the criminal and legal process. Topics include issues related to the Fourth, Fifth, Sixth, Eighth and 14th amendments. Other topics to be covered will depend on class interest and current events. Part of PACE Block – Justice and Society.

**348 Constitutional Law: The Federal System (3).** A study of the president, congress and state governments from the perspective of the Constitution, emphasizing powers and limitations on the exercise of authority.

**349 Constitutional Law: Civil Liberties (3).** A study of civil liberties in American society, emphasizing factors and forces that restrict or enlarge their scope, as understood through constitutional interpretation.

**353 Chinese Politics (3).** China's political system from earliest origins to the present. Close attention is given to the manner in which current political and economic institutions function. Comparisons are made with other communist and Asian political systems.

**354 Politics In Russia (3).** A study of domestic and international politics in Russia, emphasizing the post-Soviet period.

**355 Politics In Eastern And Central Europe (3).** An analysis of the internal politics and foreign policies of the Czech Republic, Slovakia, Hungary, Poland, and selected other countries in East-Central Europe, emphasizing the transition to post-Communist rule and new and enduring patterns of political culture.

**357 European Politics (3).** An examination of government and politics in the established democracies of Western Europe, and of political developments in

the former Communist states of Central and Eastern Europe. Offered: Winter 1997.

**369 Politics Of The Middle East (3).** This course explores the formation of the modern Middle East; the role of Islam in shaping its political cultures; the post-colonial transformations that shaped its current political systems; the economic and democratic reforms that challenge existing regimes; and the pivotal states and conflicts that stir regional politics. Offered: As needed

**370 Labor Law (3).** In this course, participants will examine the role of government in the regulation of labor-management relations in the United States. While the focus of the course will be on federal laws regulating private sector labor relations, parallel issues addressed in the Railway Labor Act and state public sector labor relations law will also be covered. Specific topics include the legal framework for the organization of workers, definition of prohibited or unfair labor practices of employers and unions, legal regulation of the collective bargaining process, regulation of the use of economic weapons in labor disputes, enforcement of collective bargaining agreements and the regulation of internal trade union activities. Prerequisites: None.

**380 Political Science And Politics (1-6).** Offered as a special course in the individual faculty member's area of research specialization. The course may be repeated for credit when the topic varies. The topic and instructor will be announced in advance. Prerequisite: Consent of the instructor or advanced standing.

**380A Political Science And Politics (1-6).**

**380B Political Science And Politics (1-6).**

**380C Political Science And Politics (1-6).**

**380D Political Science And Politics (1-6).**

**380E Political Science And Politics (1-6).**

**380X Political Science And Politics (1-6).**

**403 Political Ideology (3).** A critical examination of contemporary political ideologies including democratic and authoritarian theories.

**405 American Constitutional Thought (3).** An analysis of the development of American constitutional doctrine, with emphasis on the historical and intellectual context within which the Supreme Court changes its attitudes toward economic and political issues.

**406 Presidential Politics (3).** This course will examine the American presidency as an institution, and will analyze its role in the American political system. It will also consider the administrations of the various presidents.

**406P Political Leadership (4).** This weekend course will examine theories, institutions and styles of political leadership; analyze recruitment and selection methods; and study popular perceptions of such leaders. Using film, fiction and materials from political science, this course will culminate in a look at U.S. presidents and the presidency in the 20th century. Prerequisites: Social Science PACE 102P and 103P, or Political Science 210 or equivalent; concurrent enrollment in Political Science 409P for those in the PACE Program or in the B.L.A. degree program. For other students, the consent of the instructor is required. Students who have credit for Political Science 406A or its equivalent may not enroll in this course.

**407 Congressional Politics (3).** A study of legislative institutions, procedures and behavior (with emphasis on the U.S. Congress) in the context of theories of political representation.

**408 Judicial Politics (3).** An examination of the judiciary in the American political process, emphasizing the role of judges, lawyers and the Supreme Court.

**409 Bureaucratic Politics (3).** A study of political processes that create and operate within bureaucracies in the American pluralist system. Close attention is given to the tension between representation and rationality when making decisions.

**424 Urban Politics and Community Power Structures (3).** This course surveys and analyzes the literature covering urban politics. Students will gain both a theoretical understanding of and empirical grounding in the politics of urban America. An array of important political, social and economic problems that impact urban politics will be examined.

**425 Comparative Politics (3).** Aspects of politics in various countries as viewed through the language and thought processes of contemporary approaches to political science.

**428 Political Culture And Political Behavior (3).** This course will examine the concept of political culture and its use in the empirical analyses of political behavior in advanced political systems. Emphasis will be placed on the U.S. system with comparisons drawn from Western Europe. The student will be expected to complete an empirically documented research paper.

**429 Courts And Public Policy (3).** An analysis of how courts influence policy in selected political arenas.

**432 National Security Policy (3).** An examination of national security policy as an organizational and intellectual response to changes in technology and international conflict.

**435 Politics Of The Environment (3).** A survey of the political aspects of environmental issues. The course poses the problems of environmental damage and examines actual and proposed policies aimed at addressing them. Also offered through the PACE program. Prerequisite: None.

**438 Urban Politics (3).** The study of local politics and government in metropolitan areas with special attention to political party and interest group activity; community leadership, influences and "power"; and citizen participation and political behavior.

**440 Contemporary Political Thought (3).** Political philosophy from Nietzsche to today.

**441 Political Freedom (3).** Selected writings by political thinkers dealing with the establishment of freedom and justice in the state. Examines the challenges to political freedom under various regimes.

**442 American Political Thought (3).** This course will focus on intellectual reactions to the major periods in American history (the movement for independence, the writing of the Constitution, the Jacksonian period, the Civil War debate, the growth of big business, the rise of the positive state and contemporary America). Contemporary theorists will be included along with Adams, Jefferson, Madison, Hamilton, Marshall, etc.

**450WI Ethics And Government (3).** An examination of ethical issues related to government with the primary focus on national and local governmental bodies in the United States. Ethics in the executive, legislative and judicial branches are examined. Ethical standards for elected officials and appointed public servants are reviewed. Attempts to "legislate morality" are considered. The course includes a historical review of ethics and government and an analysis of the legal implication of legislation regarding ethics in the executive branch. Prerequisite: Successful completion of the WEPT.

**451 International Politics In Europe (3).** An examination of developments in international politics in Europe since the end of the Cold War. Issues are discussed in the context of relevant theories of international relations. Offered: every two years. Restrictions: May not be taken by those who took "Europe After the Cold War"

**480 Government And Politics (1-6).** This variable credit course will explore different contemporary issues and problems related to government and politics. Credit may apply to the major but will not satisfy any of the four subfields distribution requirements.

**490 Senior Seminar (3).** A review, analysis and integration of the literatures of the several sub-fields of the discipline. For senior political science majors only. Prerequisite: Senior standing. Offered: Each semester.

**491 Internship (1-6).** With the written consent of the department chairman, students may participate in structured internship programs approved by the department for a maximum of six hours.

**492WI Senior Seminar (Capstone) (3).** This intensive survey of political science provides graduating seniors an opportunity for integration and review of their study of political values, behavior, and institutions. Satisfies both writing intensive and capstone requirements. Prerequisites: Senior standing in political science and completion of the WEPT. Offered: Winter 1997.

**497 Political Science Tutorial (3).** Senior political science majors may apply to do independent study under a selected professor. Must have written consent of the professor prior to registration. Only one tutorial will count toward the major.

**498 Honors Tutorial (1-3).** Senior political science majors with a grade point average of 3.4 or above in political science may apply to do independent study under a selected professor. Must have written consent of professor prior to registration. Only one tutorial will count toward the major.

**H220 Introduction To Comparative Politics (3).** An analysis of the way political institutions, processes and policies vary from country to country. Emphasis on politics in Europe, with attention to other nations when making comparisons. Prerequisite: None.

## Psychology Courses

**210 General Psychology (3).** Psychological principles and methods. Prerequisite to all other courses in psychology except with consent of the instructor. Each semester.

**211P Applied Psychology (3).** As a science psychology seeks to understand the mind. This course discusses the major applications of this understanding to human problems and behavior. Applications of psychology to law, business and industry, mental health, medicine, education and the general community will be discussed.

**215 Meditation, Self-Hypnosis, And Biofeedback (3).** This course provides a relatively nonTechnical introduction to current information on meditation,

self-hypnosis, biofeedback, and related methods. It also provides practical guidance in the safe use of these procedures. This course will be oriented toward teaching the safe, personal use of available methods rather than toward the training of professionals. On demand.

**300 Industrial Psychology (3).** General course dealing with the psychology of the work environment. Included will be work rating techniques, job descriptions, selection and placement of workers, prediction of job success, supervisory and management training programs, individual interacting with others, human relations, job morale, individual satisfaction, and the structure of organizations. Prerequisite: Psychology 210.

**300CS Interdisciplinary Studies: Special Topics (3).** Faculty from at least two different departments (one of which must be a department in the Division of Humanities including History) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the program's advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A. Prerequisite: Psychology 210.

**300CT Cluster Course: Healing And Cultural Diversity (3).**

**302WI Experimental Psychology (4).** The rationale and methodology of experimentation in psychology, emphasizing interpretation of data and the design of experiments. Three hours lecture and two hours laboratory a week. Prerequisites: PSYCH 210; Psychology 316 must be completed prior to or concurrently with this course. Offered: Each semester.

**303WI Psychological Writing (3).** Psychological Writing satisfies the Writing-Intensive (WI) College of Arts and Sciences requirement. Writing skills in the psychological sciences will be emphasized. Students will receive instruction and intensive practice in writing the several components of experimental psychological reports. Prerequisite: Successful completion of the WEPT exam.

**304 Learning (4).** The fundamental conditions and principles of learning, both animal and human. A review of selected experimental literature with special emphasis upon recent developments in the field. Three hours lecture and two hours laboratory a week. Prerequisites: Psychology 210, 302 and 316 or consent of instructor.

**305 Psychology Of Women (3).** This course will be devoted to a critical examination of studies of the psychology and behavior of women. Special topics for consideration will be (1) the sex role development of females; (2) female biology and endocrinology; (3) learning and cognitive functioning of the female; (4) female achievement in educational and occupational settings; (5) female sexual behavior; (6) the psychotherapeutic treatment of women. Prerequisite: Psychology 210.

**308 Sensation And Perception (3).** The experimental study of how we perceive the world through our senses. Lectures, readings, and demonstrations cover the anatomy and function of the sense organs as well as the effect of normal and altered sensory experience on behavior. Prerequisite: Psychology 302WI must be completed prior to or concurrently with this course. Restrictions: May not be taken for graduate credit.

**310 Theories Of Aggression (3).** The two major theoretical approaches relative to explaining aggression, ethological and psychological, will be presented and contrasted. The adequacy of these approaches in explaining assaultive and criminal forms of human behavior will be examined. Specific topics may include child and spouse abuse, murder, delinquency, riots, territoriality, "catharsis" in sports, television and violence and others. Prerequisite: Psychology 210.

**311 Applied Psychology (3).** This course discusses the major applications of scientific psychology to human problems and behavior. Applications of psychology to law, business and industry, mental health, medicine, education and the general community will be discussed. May not be taken for graduate credit. Prerequisite(S): Psychology 210. Semester Offered: on demand.

**312 Social Psychology (3).** Lecture course in theories and methods of social psychology. Topics include attitudes, attitude change, leadership, conformity, person perception, cooperation and competition, racial and social class differences. May not be taken for graduate credit. Prerequisite(s): Psychology 210. Offered: Each semester.

**316 Quantitative Methods In Psychology (3).** Correlation analysis, testing of hypotheses, and other techniques for evaluation of experimental designs and quantitative data. May not be taken for graduate credit. Prerequisite(s): Psych 210, Math 116 or 110. Offered: Each semester.

**320 Ethnic And Minority Perspectives In Psychology (3).** Critical examination of the theory, methods and content of psychology relevant to the interests and needs of ethnic minorities and the contributions of ethnic groups and other minorities to the interests and needs of psychology. Prerequisite: Psychology 210. On demand.

**322 Child Psychology (3).** The relations between child's biological and social conditions of personality; problems concerning the familial role and the guidance of the child's social adaptation. May not be taken for graduate credit. Prerequisite(s): Psychology 210. Offered: Each semester.

**322P Child Psychology (3).** The relations between child's biological and social conditions of personality; problems concerning the familial role and the guidance of the child's social adaptation. May not be taken for graduate credit. Prerequisite(s): Psychology 210. Offered: Each semester.

**323 Theory And Methods Of Personality (3).** The development, organization, dynamics and determinants of personality. May not be taken for graduate credit. Prerequisite: Psychology 210. Offered: Each semester.

**326 Alternate Sexual Lifestyles & Contemporary Issues Human Sexuality (3).** One objective of this course will be to examine the psychological determinants that lead to the development of nontraditional relationships and the psychological effects on the participants. A second objective of this course will be to examine contemporary issues bearing on the sexual practices of wide segments of the community. Such factors as pornography and the roles played by the law, church and school as they pertain to the development of attitudes and on alternate sexual lifestyles. Prerequisite: Psychology 210.

**328 Psychology Of Human Sexual Behavior (3).** The focus of this course will be on the psychological factors surrounding human sexuality. This will include discussions about some myths and fallacies surrounding sexual education, correction of sexual misinformation, and relationship of attitudes to various sexual mores and practices. Although personal counseling is not included in the course, students will be informed of community resources available for consultation. An analysis of local community standards used to evaluate sexual behavior will include input from professional representatives of the community such as lawyers, physicians and the clergy. Prerequisite: Psychology 210.

**330 Psychology Of Language (3).** An introduction to the study of psycholinguistics. Topics will include psychological studies of language, animal communication, child language and psychotic language behavior. Prerequisite: Psychology 210.

**331 An Introduction To Health Psychology (3).** The purpose of this course will be to survey the many applications of psychology to the encouragement of health and wellness, to the prevention of disease, and to the healing process. Prerequisite: Psychology 210.

**400 Principles Of Psychological Testing (3).** The theory of psychological testing and measurement. Prerequisite: Psychology 316. Winter.

**403 Environmental Psychology (3).** Analysis of environmental influences on behavior of individuals and their influence, in turn, on the environment. Topics will include processes relating to the environment (such as the perception, evaluation and adaptation to the environment) and social processes relating to the environment (such as privacy, territoriality and crowding). Prerequisite: Psychology 210.

**405 Motivation (3).** The fundamental conditions and principles of both human and animal motivation. Included will be discussion of such topics as classical drive theory, psychoanalytic approaches to motivation, achievement motivation, and recent developments in theories of motivation. May not be taken for graduate credit. Prerequisites: Psychology 316. Offered: On demand.

**406P Introduction To Developmental Disabilities (4).** This course builds a knowledge base in developmental disabilities requisite to other studies in this field. Students will meet individuals with disabilities, encounter "people first" values, and examine their own attitudes about people with disabilities from a multicultural perspective. The course presents principles of human development, causes of disability, and the effects of disability on individuals and families over the life span. Topics include the health, education and social services systems serving people with disabilities with emphasis on severe disabilities and critical junctures in the life-span including childhood, school-age, transition to adult-living, employment, and aging.

**407 Cognitive Psychology (3).** This course we will review the historical foundations and current state of knowledge regarding human information processing and the mental processes that underlie human behavior. The topics covered will range from foundational cognitive processes such as attention and memory, to more complex, higher-level processes such as problem-solving and decision-making. Prerequisite: PY210; PY302WI Offered: Winter Semester

**410 Abnormal Language (3).** Abnormal language behaviors as clinical entities will be examined. Students will have an opportunity to study the language and thought of the schizophrenic, of abused and neglected children and autistic children, of individuals with brain damage, and of individuals with fluency disorders. Gender language and the misuse of language in the legal setting will also be presented. Discussion of listener's attitudes toward normal, but non-standard language, such as black dialect, will be given attention.

**415 History And Systems Of Psychology (3).** Traces the historical origins of psychology beginning with its philosophical origins and discusses problems, areas and methods which resulted in major attempts to systematize psychological theory. This is the department's capstone course. Required of psychology majors. Prerequisites: Grade of C or better in Psych 302WI Restrictions: 415 should be taken only by Psychology majors in their last semester

**418 Biopsychology I (3).** An introduction to the neural basis of human behavior. Covers research on the basic structure and function of the human brain, with topics including movement, perception, emotion, cognition, and psychological disorders. Prerequisite: Psychology 302WI

**419 Biopsychology II (3).** This course assumes that the student has mastered the basics of biopsychology, and deals with this topic in greater depth and scope than Psychology 418. It will begin with a brief review and update of basic materials of biopsychology, will quickly go on to a more advanced treatment of the topic, taking up where Psychology 418 left off. There will, in particular, be an emphasis on human biopsychology. This course is primarily intended for the advanced undergraduate. Prerequisite: Psychology 418 or equivalent.

**428 Advanced Applied Child Development (3).** Course builds on the foundation laid in Psychology 322, Child Development. Focus is on contemporary developmental issues, particularly those with applied and social policy implications for promoting positive healthy development of children and adolescents. This is an advanced course involving seminar like discussions and written assignments. Further, it is an academic service learning course and requires students to spend a minimum of 25 hours actively engaged in community work serving children or youth. Prerequisites: Psy 322 Child Psychology, earned grade of "B" or greater, or written permission of instructor.

**430 Introduction To Community Psychology And Community Mental Health (3).** Overviews the field of community psychology, a field which seeks to understand how social, political and economic factors contribute to social problems and seeks to improve community well-being through social innovation and action research. The history, philosophical underpinnings, concepts, methods and research in community mental health and community psychology are reviewed. The course provides students with both a conceptual and experiential understanding of these fields. Individual and group projects are required. Prerequisite: 6 hours of psychology. Offered: Fall semesters.

**433 Abnormal Psychology (3).** Interpretation of the major tensions and conflicts in normal personality and of unrealistic modes of reaction to these tensions and conflicts, as revealed in mental illness. May not be taken for graduate credit. Prerequisite(S): Psychology 322 or 323. Offered: Each semester.

**438 Psychology And Business And Industry: Motivational Factors (3).** Investigation of psychological principles in business and industry: personnel selection, attitudes, motivation, supervision, communication and others influencing work efficiency. This course involves student projects within the business community. Students will be acquainted with the techniques of measurement of quality of motivation, behavioral laws due to the differences in motivation, how to assess and change the practices utilized within a business regarding their motivational effects upon employees. One goal will be the production of a motivational analysis profile for use in business and industry within the community. Prerequisite: Nine hours of psychology.

**440 The Psychology Of Aging (3).** This course will identify major issues concerning psychology related to aging. The major influence on the behavior, cognitive functioning and emotions of older adults will be examined. Consideration will be given to individual, group and environmental influences. Possible interventions will be identified. Cross-sectional and longitudinal research will be reviewed in order to examine the changes in individuals due to aging and the differences between cohort groups. Three major areas of information will be the focus: Concepts, theory and methods in psychology of aging; Biological and social influences on behavior, and behavioral processes. Offered: Fall Semester.

**441 Adult Development And Aging (3).** This course will identify major themes and issues of mid-life and older adults. It will examine major developmental theories of adult development and aging. A contextual approach is stressed, including research and theory on the impact of cohort, gender, race/ethnicity, socioeconomic status, and culture on development. Application to real life is integrated throughout the course. Prerequisites: None. Offered Winter semester.

**450 Special Topics (1-3).** These are courses which are offered as the result of student demand, specialized faculty interests or the availability of a visiting expert in a field related to psychology. Students may enroll in one section of 450 per semester but not limited in the total number they may take. Prerequisite: Consent of instructor. On demand.

**450A Special Topics (1-3).**

**450G Special Topics In Psychology (1-3).**

**453 Family Life Cycle: Developmental Approach Understanding Family Dynamics (4).** The primary purpose of this course is to enhance the student's understanding of the dynamics of healthy families. After receiving a historical overview of the development of families and the cultural roots and traditions behind different family structures, child-rearing values and other factors, the students will be given a framework to understand how healthy families establish a dynamic balance between individual and group needs, and between needs to establish structure and to be flexible in the face of change. A second framework will also be presented to provide students with an understanding of

how families use their internal resources to cope with life stressors. Given these basic cultural, interactional, and coping frameworks as foundation for understanding, students will explore how families change as they move through time from formation as a couple, through early child-rearing, adolescence mid-life, and post retirement. Implications for human service professionals will be presented.

**453P Family Life Cycle: Developmental Approach Understanding Family Dynamics (4).** The primary purpose of this course is to enhance the student's understanding of the dynamics of healthy families. After receiving a historical overview of the development of families and the cultural roots and traditions behind different family structures, child-rearing values and other factors, the students will be given a framework to understand how healthy families establish a dynamic balance between individual and group needs, and between needs to establish structure and to be flexible in the face of change. A second framework will also be presented to provide students with an understanding of how families use their internal resources to cope with life stressors. Given these basic cultural, interactional, and coping frameworks as foundation for understanding, students will explore how families change as they move through time from formation as a couple, through early child-rearing, adolescence mid-life, and post retirement. Implications for human service professionals will be presented.

**458 Behavior Modification (3).** A survey of behavior modification procedures used to change individual behaviors in variety of settings. The course will entail a critical examination of the behavior modification literature and will include training in the application of the principles to community problems. Prerequisite: Either Psychology 302 or 304.

**460 Field Practicum In Behavior Modification (3).** Practice in the application of behavior modification principles in community agencies. Students wishing to enroll in this course should apply to the director of the behavior modification program one semester in advance of anticipated enrollment. Prerequisites: Psychology 302 or 304 and 458. On demand.

**461A Field Practicum (4).** Provides supervised experience working in community agencies/ organizations which address various human and social problems. Students receive training in community service oriented skills and approaches; e.g., advocacy, community organizing, program assessment, development and evaluation, outreach, and applied research. Ten hours per week at practicum site and class attendance are required. Prerequisite: Consent of instructor. Offered: Fall and winter.

**490 Directed Individual Research (1-6).** Student will work on an individual research project under the supervision of a staff member. Consent of staff member is required prior to registration in this course. A maximum of three hours may be applied toward the major in psychology and a maximum of twelve toward the bachelor's degree. On demand.

## Public Administration Courses

**310 Introduction To Public Administration (3).** Introductory analysis of the theory and practice of public administration and its special role in society. General examination of newer approaches to planning, programming, budgeting, and system analysis in the responsible-responsive administration context. The political role of the public administrator in public policy formulation and his/her general strategies.

**410 Research Methods In Public Administration (3).** This introductory course focuses on quantitative empirical research design and statistical analyses in relation to public administration issues and concerns. Prerequisite(s): Admission to MPA 5 year program. Offered: Fall, Winter, Summer.

**415 Issues In Urban Administration (3).** This course is designed for students in urban affairs, urban planning, business administration, political science, sociology, geosciences, economics and related fields. It provides an overview of major issues and trends in urban administration. Issues include taxes, urban sprawl, race/ethnicity, education, poverty, affordable housing, environment, crime, and land use. Particular focus will be paid to public policy, comparing policies and leadership to construct an interdisciplinary, comparative understanding of how cities address these problems, issues and trends. Offered: Fall 2005

**448 Leadership For Public Service (3).** The two core purposes of this course are for students to learn about effective and ethical leadership, and for students to understand and develop their own capacity for leadership. The course is organized around three general themes: 1) leadership as relations with subordinates, including issues of work motivation; 2) leadership as lateral relations, including organizational politics and conflict management and resolution; and 3) leadership as influence in the organization's environment. Prerequisite(s) Admission to MPA 5 year program. Offered: Fall, Winter, Summer.

**455 Non-Profit Leadership Issues (1).** Focusing on leadership issues in nonprofits, this course will explore issues in an intensive seminar format (fifteen class hours). Topics include building and renewing nonprofit boards, and the power of diversity in nonprofit organizations. Recommended for nonprofit management students. Prerequisite(s): None.

**455B Non-Profit Leadership Issues: Board-Staff Relations (1).**

**455C Non-Profit Leadership Issues: A Vital Resource In A Changing World (1).**

**495 Voluntarism, Philanthropy & The Non-Profit Sector In The U.S. (3).** This course provides a survey of the origins, development and contemporary functioning of the private, nonprofit sector in the U.S. The course explores theories and concepts that describe the social, political, legal and economic meaning of voluntarism, philanthropy and the nonprofit sector.

**497 Special Topics In Public Administration (1-3).** Study and research in areas of special interest under individual faculty direction. Prerequisite: Senior standing and pre-registration consent of instructor.

**497B Special Topics In Public Administration (1-3).**

## Religious Studies Courses

**100 Introduction To Comparative Religion (3).** An introduction to the major religious traditions of the world and small group or tribal religions. Emphasis on the comparative study of selected myths, rituals, types of religious specialists, and types of religious communities.

**400 Special Topics In Religious Studies (1-3).** Special topics in religious studies which are not offered regularly. The focus of the course varies by semester and instructor.

**400A Special Topics In Religious Studies (1-3).**

**400B Special Topics In Religious Studies (1-3).**

**400C Special Topics In Religious Studies (1-3).**

**400D Special Topics In Religious Studies (1-3).**

**467 Myth And Ritual (3).** "Myth" and "ritual" have long been fundamental categories in the study of religion. This course will briefly survey some of the major theories and approaches to the study of myth and ritual from the Enlightenment to the present. The course will not only trace the shifting meanings of "myth" and "ritual", but will critically evaluate the utility of diverse approaches to the study of religious phenomena designated by these terms. Reading will include theoretical works, as well as selected case studies.

**492 Cults, Sects And New Religious Movements (3).** In this course students will experience: (a) a variety of methods for analyzing and understanding new religious movements in society: sociological, historical and textual; (b) an introduction to the broad spectrum of religious beliefs which exist (and flourish) outside the cultural mainstream; and (c) an introduction to some of the means by which dominant religious and secular culture has confronted the presence of NRMs—e.g., deprogramming, exit counseling, and theologically oriented countermovement. Note: This course will be offered with RS 5592; requirements for undergraduates will be less than for graduate students in terms of the length and sophistication of the research paper. Offered: On demand

**493 Sex & Religion: The Erotic & The Anti-Erotic In Comparative Persp (3).** This course is designed to highlight issues related to the various ways in which religions of the world have integrated, embraced, or repressed one of the most basic human experiences—sexual expression. NOTE: This course will be offered with RS 5593; requirements for undergraduates will be less than for graduate students in terms of length and sophistication of the research paper. Offered: On demand

**494RS Death In The History Of Religions (3).** As a biological "fact," death would appear to be a human universal. Yet, human beings have imagined—and, thus experienced—the meaning of death in many diverse ways in different cultures and over time. This course explores the conceptualization and representation of death and dying, as well as the ritual activities surrounding death, found in selected religious communities. The goal is to gain insight into how people have sought to (re) create a world of meaning in the face of death and to gain a critical perspective on our own contemporary situation.

**495RS Time And Space In The History Of Religions (3).** Time and space are essential components of the lived worlds of human beings, yet the cultural and historical constructions of these are remarkably diverse and, moreover, are subject to change. This course is a cross-cultural, interdisciplinary, and comparative exploration of the constructions and experiences of time and space found in selected religious communities and historical periods. In addition, it investigates the pivotal role the categories of "sacred and profane time and space" have played in theorizing religion and in the study of religious myths and rituals in the modern period.

**496RS The Body In The History Of Religions (3).** The human body is the site of extensive imaginal and ritual activities in all religious traditions. This course explores some of the diverse ways religious communities have imagined and experienced the human body, as well as how the body had been manipulated and worked on in an effort to transform the human situation in the world.

**497RS Special Topics And Readings (1-6).** Intensive reading and/or research in an area selected by the student in consultation with the instructor. By permission only. May be repeated for credit when the topic varies. Permission of Faculty Member. Offered: On demand.

## Saxophone Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Saxophone I (2-4).**

**101J Freshman Saxophone I (Jazz) (2).**

**102 Freshman Saxophone II (2-4).**

**102J Freshman Saxophone II (Jazz) (2).**

**201 Sophomore Saxophone I (2-4).**

**201J Sophomore Saxophone I (Jazz) (2).**

**202 Sophomore Saxophone II (2-4).**

**202J Sophomore Saxophone II (Jazz) (2).**

**301 Junior Saxophone I (2-4).**

**301J Junior Saxophone I (Jazz) (2).**

**302 Junior Saxophone II (2-4).**

**302J Junior Saxophone II (Jazz) (2).**

**401 Senior Saxophone I (2-4).**

**401J Senior Saxophone I (Jazz) (2).**

**402 Senior Saxophone II (2-4).**

**402J Senior Saxophone II (Jazz) (2).**

## Social Science Courses

**210 Foundations Of Social Science I (3).** An application of salient principles, facts and methods of social sciences to study of origins and nature of social institutions; problems of emotional adjustment and vocational choice; analysis of contemporary social, legal and economic trends affecting values, conception of freedom and of social power, and political organization. Every semester. Note: Continued in Soc. Sci. 220.

## Sociology Courses

**101 Sociology: An Introduction (3).** An introduction to the study of society and the basic concepts of sociology. Fall, winter, summer.

**103 Introduction To Cultural Anthropology (3).** An introduction to culture and the basic concepts of anthropology. Topics include kinship, language, and cultural change. also offered as Anth 103. Offered: Fall/Winter.

**201 Introduction To Social Psychology (3).** Exploration of the relationships between human behavior and social context. The course focuses on how realities are socially constructed and sustained, the role of symbol systems, definitions of the situation, the self as a product of interaction, and the relationship between language, thought and culture. Offered: Fall/Winter

**202R Social Organization (3).** This course focuses on the principles of social organization that undergird all human societies: social groups; age and gender differences; the institutions of family, economy, religion and polity; power; community and other units of residence; and social differentiation based on such factors as wealth and/or prestige. The focus of analysis is on the maintenance of social order, social change, and integration of society. Crosslisted with ANTH 202R. Prerequisite: Soc 101. Offered: Every semester.

**203 Contemporary American Issues (3).** An examination of major social problems of modern Western society, including issues of racial conflict, war, civil rights, youth movements, the mass media, urban poverty, and crime. The topics will vary from year to year depending upon the instructor. Fall, winter.

**211 Social And Psychological Development Through The Life Cycle (3).** A survey of significant psychosocial issues, events and crises throughout the human life span. The life cycle of the family is examined as the primary context within which individual development occurs. Although the primary emphasis will be on normal adjustment and development, attention will also be given to the occurrence of special problems and deviations at each life stage. Fall/winter.

**300CF Special Topics in Sociology (1-3).** Each time this course is offered, a different area of sociology, to be announced, will be given. Crosslisted with Anthro 300R

**300R Special Topics In Sociology (1-3).** Each time this course is offered, a different area of sociology, to be announced, will be given. Also offered as Anth 300R.

**300RD Special Topics In Sociology (1-3).**

**302 Social Stratification (3).** The distribution of power, privileges and prestige are examined in a historical and comparative perspective. The process whereby distribution systems develop, become institutionalized, and become transformed are analyzed. Offered: Fall.

**303 Cluster Course: Interdisciplinary Studies (3).**

**303CA Cluster Course: Perspectives In Science And Healing (3).**

**303CF Cluster Course: African And African American Women And Creativity (3).**

**303CO Cluster Course: Issues In Death And Dying (3).** This course reviews historical and theoretical perspectives on death and dying. It explores the relationship of death to the social structure and culture in which it occurs, and examines interdisciplinary issues concerning death and contemporary society.

**303CP Cluster Course: Religion In America (3).**

**303CT Cluster Course: Healing And Cultural Diversity (3).**

**303CW Cluster Course: Introduction To Women's Studies (3).** What does it mean to grow up female in America? How does being female influence the body, the mind, identity? This course is an interdisciplinary exploration of the issues that have shaped the lives of American women throughout the life cycle and across the timeline. This course examines the role that culture and society have played in shaping and defining what it means to be an American girl and woman.

**310R Families And The Life Course (3).** This course is an upper level introduction examining the sociological, historical, and social psychological research on the family, focusing primarily on the United States. The course examines families of varied ethnicity, as well as family compositions at different stages of the life course. Emphasis is placed on the interdependence of family members, as well as how society and policy influence the family.

**313R Sociology Of Women (3).** A study of family, community and career roles of women in contemporary society. Special attention is directed to the variety of their life patterns and dual roles made possible by a changing society. Fall/winter.

**314 Anthropology Of Women (3).** This class explores such global women's issues as cultural diversity, local and international politics, the economy and work, education and other ideologies, etc. We will inquire into women's lives in a variety of societies, during colonial contact, and in the current post-colonial New World Order to understand how the study of women through cultural anthropology informs all areas of life.

**316 Sociology Of Death And Dying (3).** Examination of attitudes, behaviors and institutions related to death and dying in contemporary American society. Topics include the status of death in American society, effects of the setting on dying, interaction with the dying, funeral practices, bereavement customs, surviving spouse, and suicide.

**317 Policies Of Drug Use And Control (3).** Utilizing both historical and contemporary information, this course provided an assessment of the "drug problem" in the U.S. and policies of control developed in response to the problem. Drug use criminalization, legalization, medical treatment and prevention strategies and related issues are considered in regard to scientific knowledge related to the patterns, causes and impact of substance abuse. Also offered as CJC 317. Annually.

**318 Sociology Of The Aging Woman (3).** An exploration of the intersection of gender and aging issues with special attention to cultural images of women, the development of self-concept and identity in mid-life and beyond, caring roles in the family, work and retirement, and health and mental health issues. These issues are examined within the context of social class, race, and ethnicity. Implications for community programs and social policy are considered.

**319 Theoretical Criminology (3).** A comprehensive examination of the major criminological theories, their philosophical assumptions, and the sociohistorical context in which they were articulated. Also offered as CJC 319.

**320 Social Deviance (3).** The dominant sociological perspectives on deviance will be discussed with special attention given to the processes that define behavior and persons as deviant and the impact of such definitions on social relationships and identity.

**322 Race And Ethnic Relations (3).** The nature, origin and dynamics of ethnic and race relations in the U. S. and other societies. Specific attention will be given to the historical and contemporary contexts of prejudice

discrimination and confrontation. Also offered as Anth 322. Offered: Fall/Winter.

**324 Diversity And You (3).** This course will examine diversity from the perspectives of race, ethnicity, class and gender. Emphasis will be placed on the impact of racism, classism and sexism on interpersonal relationships and strategies to encourage diversity in schools, neighborhoods, and the work place. Students may also enroll in "directed research" in conjunction with his course.

**325 The Imagery Of The American Indian In Film (0-1).** This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present. Also cross listed as Anthropology 325.

**327 Us Government's Indian Policies: Practices Of A Colonizing Nation (0-1).** This class will convey information about the implementation of US government policies toward American Indians and how each of the policies, from treaty making, establishing reservations, removing, confronting tribes militarily, and abolishing reservations through allotment resulted in consequences detrimental to tribal welfare. The colonization process created ramifications and consequences that Indian people contend with to this day. This class will provide a historical overview of the consequences associated with political, social, and economic processes that divested Indian people of control over their lives and land they originally lived on. Also cross listed as Anthropology 323.

**328 Anthropology Of The Body (3).** The Anthropology of the Body is an interdisciplinary and comparative approach to the study of the body as the subject and object of social processes. Anthropological approaches to ritual, performance, reproduction, and healing will provide a framework for classical as well as contemporary explorations of bodily representation and experiences across a variety of cultural contexts. Prerequisite: Introduction to Cultural Anthropology

**329 The Imagery Of The American Indian In Film (0-1).** This course will trace the imagery of the American Indian used by film makers through the years and how this has played a role in reinforcing certain inaccurate perceptions of American Indian cultural, social, and economic life. The course examines the sociological implications created by persistently showing misrepresented images of American Indians. The goal is to measure and compare the reality of American Indian life (values, Traditions, and beliefs) with the images created by film makers from the early years of the 20th century to the present. Also cross listed as Anthropology 325.

**331 Urban Anthropology (3).** A course designed to apply anthropological methods to the study of various urban environments. The approach to the subject is comparative, seeking to spell out those features of the urban setting which vary from culture to culture as well as those which are common to all. Crosslisted with ANTH 331. Offered: Fall.

**332 Sociology Of Political Life (3).** The concept of power, community power structure and decision making. The social basis of liberal democracy; consensus and legitimacy; political stability and instability. Power and politics in a mass society; elites and masses; democracy and oligarchy; alienation; bureaucracy; pluralism and totalitarianism. Ideology and social movements.

**335R Introduction To Social Work: Principles And Practice (3).** An introductory course to social work, its history and current role in the delivery of social welfare services. Designed to give the student insight into the body of knowledge, theory, values, principles, and techniques of the social work process. Investigation into the varieties of practice methods, i.e., casework, group work, community organization, and the present trend toward the generic approach. Fall/winter.

**336 Society And Community Service (3).** This course explores the history and increasing importance of the non-profit sector and volunteerism. Applying theoretical approaches from development and community organizing, the course analyzes the uses of volunteerism and NGOs nationally and internationally. Students' understanding will be enhanced through the inclusion of applied methods needed to manage a non-profit organization and by serving in an internship in a local non-profit during the semester. Offered: Fall Semester

**337 Community Development In Urban America (3).** The focus in this course is on experiential learning in which the student participates in several urban community development projects that allow for learning about collaboratives, networking, problem-solving, and requisite skills to successfully manage a project. Principles of community development are presented to give the student background for understanding the projects visited.

**339 American Indian Leaders: Past And Present (0-1).** This course will examine the definition of leadership as it relates to American Indian issues.

Consideration will be given to the nuances of leadership by examining the social, cultural economic, and political situations that gave cause for particular individuals to assume roles of Indian ranks with those practiced by non-indian leaders. It will trace the evolving nature of leadership within tribal nations and American Indian communities from past to present, as well as looking at Indian leadership roles in time of war and peace. Lives of the major characters of American Indian historical record will be reviewed, such as Geronimo, Crazy horse, Sitting Bull, Osceola, Tecumseh, Pontic, Black Hawk, Quannah Parker, and Captain Jack. Also cross listed as Anthropology 326.

**343 Societies And Cultures Of Latin America (3).** A survey of emerging cultures and societies in Latin America; pre-history and geography; the Mayan, the Aztec and Incan civilizations; contemporary Indian, peasant and urban subcultures; the impact of forces such as migration, urbanization, peasant mobilization, and agrarian reform. Also offered as ANTH 343.

**346 Cultures Of The African Diaspora (3).** This course will explore the cultures of African people and their descendants who settled in Europe, the Caribbean or the Americas due primarily to the impact of the Trans-Atlantic trade in human beings. The focus will be comparative, with emphasis on cultural adaptation, kinship systems, music and religion.

**347 The American Indian Image: Stereotype Vs. Reality (0-1).** This class will take a historical, sociological, and cultural approach to review how society at large views American Indians. The course will trace the origin and continued use of American Indian stereotyped views, and assess the sociological and psychological complications that result when judging Indians solely on stereotyped imagery. The course will review the historical content of American Indian life as portrayed in early plays, films, and newspaper accounts and compare these stereotyped images with the reality of American Indian life by providing a depiction of a series of historical events that will offer a more balanced and accurate consideration for American Indian life past and present. Also cross listed as Anthropology 324.

**351 Gender, Work And Social Change (3).** This course examines the role of gendered work and consumption in global social change. Drawing from sociological perspectives on gender and work, this course foregrounds a global comparative analysis of societal development and working contexts, including tourism employment, sex work, domestic work, and agricultural, garment, and informatics production. Academic-service learning constitutes a primary course assignment. Offered: Winter

**352 Multicultural Women's Histories In The U.S. (1).** This course offers an introduction to the histories of women in the U.S. from the 17th to the beginning of the 20th century. We will study colonial and US women of Native, Latino, European, African, and Asian descent, their contact with women (and men) of other ethnic groups, the political, economic, and legal changes affecting their lives, and the images they created of themselves and each other. Offered: Every Fall Semester

**353 Women, Class, And Ethnicity In The U.S. (1).** This course focuses on contemporary women's lives and issues such as welfare and immigration, stereotypical imagery, and the pressure to put ethnic and/or class interests before gender concerns. We will study women of Native, African, European, Latin, Asian, and heterogeneous descent and the ethnic, economic, and legal forces shaping their lives. Offered: Every Fall

**354 Women's Lives In The Global Economy (1).** This class explores the realities of women's lives and the work that women contribute to all societies. Using an anthropological approach, we will explore women's productive work in gathering, horticulture, agriculture, and industrialization, women's reproductive work, as well as their work of status enhancement and caring. Highlighting the changes wrought by colonialism, we will also explore women's work, both voluntary and involuntary, in the global economy. Offered: Every Winter Semester

**355 The United Nations' Womens Conferences (1).** This class studies the United Women's Conferences in Mexico City (1975), Copenhagen (1980), Nairobi (1985), Beijing (1995), and Beijing +5 (2000), their themes, participants, documents, solutions, and consequences. Special attention will be paid to women's human rights. Offered: Every Winter Semester

**356 Cross-Cultural Gender Conceptions (1).** This class surveys the varieties of gender definitions and roles in historical and contemporary human cultures in their association to stratified or equitable access to economic, political, and ideological resources. Topics include the definitions and varieties of human sexes and of human genders, and the multiple ways in which people create sexual and gender intersections and variations. Offered: Every Winter Semester

**361 Social Theory (3).** A survey of the major orientations in social theory, their historical development, and contemporary issues and controversies in social theory. Prerequisite: 3 hours in social science.

**362 Methods Of Sociological Research (3).** Experimental and observational schemes; survey analysis; interview and questionnaire designs; scaling techniques; sampling. Also offered as CJC 483.

**363 Introduction To Statistics In Sociology/Criminal Justice (3).** A first course in the statistical analysis of quantitative data. Course emphasizes descriptive statistics, probability theory, parameter estimation, bivariate hypothesis testing, and computer applications. Prerequisites: Math 110, 116 or an equivalent. Offered: Fall

**372 Introduction To The Sociology Of Religion (3).** Using the tremendous diversity of religious belief and practice in North America, in particular new religious movements, this class will acquaint students with the academic study of religion as a social (and sociological) phenomenon. Students will learn how religion has been interpreted by sociologists in the past, and how evolving perspectives shape both the way academics perceive religion and how they study it. They will learn how religion permeates and affects virtually every domain of human culture and interaction. And they will gain experience in fieldwork, coming to understand in the process religious traditions other than those in which they may have been raised.

**390R Directed Field Experience I (1-6).** The student will work within one or more social agencies or organizations in the city under the joint supervision of a professional within the organization and a member of the Sociology Department. In-class discussion will cover the major problems of social organization. Prerequisite: Consent of instructor.

**390RA Directed Field Experience I (1-6).**

**391 Directed Field Experience II (1-6).** A continuation of Sociology 390. Winter.

**397 Independent Readings In Sociology (1-3).** Intensive readings in an area selected by the student with prior consultation with instructor. Prerequisite: Twelve hours of sociology. On demand.

**398 Independent Research In Sociology (1-6).** Intensive research in an area selected by the student with prior consultation with instructor. Prerequisite: Twelve hours of sociology. On demand.

**404WI The Sociology Capstone: Senior Seminar (3).** A seminar which explores the interrelationships between sociology theory, research methods and statistics. May focus on major contemporary issues building on and integrating knowledge obtained in previous courses. This course is a writing intensive course and satisfies this requirement for the general degree requirements of the college. Prerequisites: Soc. 361, Soc. 362, Soc 363. Offered: Fall/Winter.

**410R Aging In Contemporary Society (3).** Attitudes and stereotypes, the status of the aged in American society; the social psychology of the aging process; the response of societal institutions such as the family and political system to the aging of the population as a whole. Applications and potentials of research are considered.

**411 Sociology Of Human Sexuality (3).** A cross cultural examination of the most fundamental dichotomy in human society: male and female. Considering sex both as a biological and social category, this course compares diversity and similarity in the interrelationships of male and female in patterns of behavior and social organization found in human societies across time and space.

**416 Aging And Developmental Disabilities (2).** This course explores the experience of aging with a developmental disability or mental retardation within the context of normative aging. Among the comparisons made between older persons with and without developmental disabilities are their demographic characteristics, physical and cognitive functioning, role transitions and losses, identities and self-concepts, and family and caregiving issues. Policies, programs, and emerging concepts of best practices are considered within the context of quality of life, ethical, and community inclusion issues. Prerequisites: None. Offered: Summer.

**417 Practicum In Aging And Developmental Disabilities (1).** Students gain experience in working with and defining issues of Older persons with developmental disabilities through placements in sheltered workshops, senior centers, residential group homes, and other community-based programs. Prerequisites: None. Offered: Summer.

**418 Feminist Theories (3).** This class introduces the major feminist theories and their primary authors over the last 200 years. The class takes both a historical view (beginning with two millennia of male-centered theories about women) and a conceptual approach (theories are grouped by common ground) and familiarizes the student with both the historical processes that necessitate feminist theories as well as with the breadth and depth of the historically and currently available scholarship. Prerequisite: Introduction to Women's Studies Offered: Winter Semester

**420 Control Of Crime And Delinquency (3).** The various ways societies have tried to control and prevent violations. Topics: the nature and types of law; a critical analysis of the American police, judicial and penal systems; the prevention of crime and delinquency. Also offered as CJC 420. Offered: Fall semester

**421 Criminal Behavior In The United States (3).** A description and causal analysis of complex forms of criminal behavior in contemporary American society; included for study will be organized and professional crime, white collar crime, homicide, suicide, and crimes against morals involving sex, alcohol, drugs and gambling. Winter.

**424 The Death Penalty In America (3).** This course takes a sociological look at the most extreme punishment currently in use in the United States. Society debates its value without giving much weight to the research which social science conducts. Indeed, the political domain frequently misrepresents the data that is available. The course evaluates the adequacy of the research and separates the strands of the debates in order to understand the role of the death penalty in our society. Also offered as CJC 424.

**430R Complex Organizations (3).** The sociology of complex organizations examines sociological theories and methods that explain what an organization is trying to accomplish and ways in which performance can be assessed. Emphasis will be on internal structures and processes of organizations, the organization's relationship to the individual and the organization's environment.

**431 Social Organization Of The City (3).** An examination of the social structure of the American city with special reference to the historical development of American cities. Attention will be focused on the role of social institutions as they have changed in relation to urban problems.

**439 Social Meanings Of Illness, Suffering And Healing (3).** The course explores the human experience of illness and healing and its intersection with cultural values and institutional arrangements. Various meanings that are associated with the experience of being sick and caring for the sick are examined, especially in terms of economic, cultural, and racial factors. The struggle to make sense out of suffering and the harshness of disease is examined, as is the possibility for growth, transformation, and healing that are contained in the illness experience. Offered: Summer

**440R Sociology Of Medicine (3).** Relationship of basic concepts in sociology to health and medical care. Cultural and class variations in health status. Social and cultural aspects of health.

**441 Developing Countries (3).** Focuses on issues of economic development, social stratification, political institutions, and political mobilization in societies where colonialism provided the context for their long-term disadvantages in the international economic order. Specific attention is paid to the intersection of the international components that define the options and limits for societal development (e.g., market shifts, international institutions and contracts, foreign policies, and migration) and the distinct social, political and cultural implications of these factors for developing societies. Crosslisted with (ANTH or SOC 441).

**470 Colloquium: Law And Social Structure (3).**

**486 Methods Of Program Evaluation (3).** This course focuses on applying research methodological techniques to evaluation of programs designed to respond to social problems and issues (e.g., drug use, crime, delinquency, indigent care). Topics of interest to those charged with designing and executing program evaluations are considered, including types of program evaluation assessment, use of time series models, special research issues for program evaluation and generating and testing hypotheses from program objectives. Also offered as CJC 486. Annually.

## Spanish Courses

**110 Elementary Spanish I (5).** The goals of this course are an ability to speak and to understand simple (spoken) Spanish as well as to read and write simple prose. Every semester and summer.

**120 Elementary Spanish II (5).** Continuation of Spanish 110. Every semester. Prerequisite(s): Spanish 110 or equivalent.

**211 Second Year Spanish I (3).** Further development of comprehension and communicative skills in the language. Readings of moderate difficulty and grammar review. Practice in writing. The goal is attainment of intermediate proficiency in the language. Prerequisite: Spanish 120. Fall.

**216 Spanish For The Health Sciences (3).** This course will enable the student to converse with Hispanic patients and/or hospital personnel in situations such as admissions, patient care, lab work as ordered by a physician or dentist, emergency room procedures, etc. In addition, medical readings in Spanish will give professional and paraprofessional students an increased vocabulary related to the many fields within the health sciences. This course will satisfy one semester of the A&S language requirement. Prerequisite: one year of college Spanish or its equivalent. Summer and on demand.

**221 Second Year Spanish II (3).** Continuation of Spanish 211. Winter.

**250 Commercial Spanish (3).** Business practices in correspondence in the Spanish language; special vocabulary of business, trade, banking and administration. Refinement of grammatical and stylistic skills. Subjects treated include price inquiries, quotations, offers, orders, complaints, administrative, banking and diplomatic correspondence. Prerequisite: Spanish 221 or equivalent.

**280 Special Intermediate Spanish Topics I (2-4).** Instruction of Spanish on the second-year/intermediate level introducing new methods of foreign language teaching or special texts and topics not normally offered through regular courses. May not be repeated for credit. Prerequisite: Elementary I and II college-level courses or equivalent. As needed.



**290 Special Intermediate Spanish Topics II (2-4).** Continuation of Spanish 280. May not be repeated for credit. As needed.

**301 Introduction To Literary Studies (3).** Emphasis will be placed on the study of literary theory and the philosophical ideas behind the literary movements, their relations and differences. A representative work or works of each genre will be thoroughly studied and analyzed. Critical reports will be written about different features of the literary works under consideration. Strongly recommended for all majors, to be taken before 400-level literature courses. Prerequisite: Spanish 315

**315 Intermediate Conversation And Composition I (3).** Grammar review, practice in speaking and writing Spanish; emphasis on idiomatic usage and practical vocabulary. Required for major. Prerequisite: Spanish 221 or equivalent. Every fall.

**325 Intermediate Conversation And Composition II (3).** Continuation of Spanish 315. Required for major. Prerequisite: Spanish 315. Every winter.

**350 Continental Spanish Civilization (3).** General cultural characteristics of Spain. Readings from representative literary works.

**351 Latin American Civilization (3).** Historical development of Latin America. Readings from representative literary works.

**365 The Search For Mexican Identity (3).** The goal of the course is to familiarize the student with the poignant search for self awareness and definition witnessed in the letters and fine arts of Mexico in the 20th-century. Readings will include works by Vasconcelos, Reyes, Ramos, Paz, Rulfo and Fuentes, and will be complemented by slide presentations of pertinent works by major artists.

**373 History Of Spanish Literature I (3).** A study of the development of Spanish peninsular literature from the Middle Ages to 1700. Prerequisite: Spanish 315 & 325

**374 History Of Spanish Literature II (3).** A study of the development of Spanish peninsular literature from 1700 to present. Prerequisite: Spanish 315 & 325

**380 Special Topics (1-3).** Treatment of a particular genre or area of literature or language normally not offered through regular courses. May be repeated for credit when the topic changes. Prerequisite: Permission of the instructor.

**401 Introduction To Spanish American Literature I (3).** The colonial period. Selected readings in historical and literary material from the time of the conquest to the period of struggle for independence. On demand.

**402 Introduction To Spanish American Literature II (3).** The 19th and 20th-centuries. Selected readings from prose and poetry of Spanish-American writers. On demand.

**414 The Generation Of 1898 (3).** An examination of the intellectual, critical, historical, and social problems as reflected in the writings of Ganivet, Unamuno, Valle-Inclan, Baroja, Azorin, and others. Also offered as Spanish 5514.

**415 Advanced Conversation And Composition I (3).** Continued practice in speaking and writing Spanish, with attention to the elements of style. Continued in Spanish 425. First semester required of all majors and second semester recommended. Both semesters required of prospective high school teachers. Either or both semesters may be repeated with the consent of the instructor and the department chairman. No more than six hours credit may be applied towards a degree. Prerequisite: Spanish 325. Every fall.

**416 Medieval Spanish Literature (3).** From the Cantar de Mio Cid to 1499. Winter.

**417 Spanish-American Lyric Poetry (3).** A survey of poetry in Spanish America from Colonial times to World War II, including a study of the most representative poets and their writings. Winter.

**418 Romantic Movement In Spain (3).** The origin and development of romantic literature against the historical and ideological background of the first half of the 19th century. Various literary genres will be studied; these will include works by Rivas, Espronceda, Larra, Zorrilla, Gil y Carrasco, Becquer and others.

**420 Cervantes' Don Quixote, Part I (3).** An intensive reading of the first part of Cervantes' novel, Don Quixote.

**421 Cervantes' Don Quixote, Part II (3).** An intensive reading of the second part of Cervantes' novel, Don Quixote. Part One is not a prerequisite. Also offered as Spanish 5521.

**425 Advanced Conversation And Composition II (3).** Continuation of Spanish 415. See Spanish 415. Required for teacher certification in Spanish. Prerequisite: Spanish 415. Winter.

**426 Golden Age Drama (3).** The development of the Spanish drama from Lope's youth to the death of Calderon. Also offered as Spanish 5526.

**427 Pre-Columbian And Spanish Colonial Literature (3).** A study of the pre-Columbian works in drama, narrative, and poetry (Popol Vuh,

Apu-Ollantay, Incan and Aztec poetry) leading into a survey of Spanish-American colonial literature. Also offered as Spanish 5527.

**428 Contemporary Spanish Poetry (3).** A comprehensive and intensive study of 20th-century Spanish poetry. Poets and poetry will be studied in the light of literary movements, foreign influences, political tendencies and philosophical ideas. Also offered as Spanish 5528.

**429 The Novel Of The Mexican Revolution (3).** The revolution as the principal focus of 20th-century Mexican fiction. The course will examine both the evolving understanding of the event/process and the sophistication of narrative technique employed in its presentation. Among the writers to be studied are Azuela, Guzman, Lope y Fuentes, Yanez, Revueltas, Rulfo and Fuentes. Also offered as Spanish 5529.

**430 Spanish Mysticism (3).** An examination of the development of mysticism in Oriental and Occidental civilizations, with emphasis on the great periods of mystic experience as reflected in the literary production of the Spanish Golden Age. Readings could include the works of Fray Luis de Granada, Fray Luis de Leon, Saint John of the Cross and Saint Teresa of Avila. Also offered as Spanish 5530.

**431 The Golden Age Novel (3).** A study of major prose works of the Golden Age. Possible topics include authorship, innovative narrative techniques, textual strategies and metafiction issues. Readings could include works by Alfonso Martinez de Toledo, Diego de San Pedro, Fernando de Rojas, Francisco Delicado, Cervantes, and Lope de Vega. Also offered as Spanish 5531.

**432 Pastoral Literature (3).** A study of the development of pastoral literature during the Spanish Golden Age. Possible texts: Juan del Encina's Eclogues, Montemayor's Los siete libros de la Diana and Cervantes' Galatea. These works will be examined within their historical and cultural context. Also offered as Spanish 5532.

**433 Cervantes' Exemplary Novels (3).** A study of Cervantes' Exemplary Novels within the context of 17th-Century Spain. Attention will be paid to interpretive possibilities and how knowledge of historical contexts might influence readings of this rich and varied cultural output. Also offered as Spanish 5533.

**434 The Picaresque Novel (3).** A study of the development of picaresque fiction during the Spanish Golden Age. The course deals with novelists principally active during the Baroque period such as Mateo Aleman, Francisco Lopez de Ubeda, Miguel de Cervantes, and Francisco de Quevedo. Also offered as Spanish 5534.

**450 Modern Classics Of Latin American Literature (3).** The goal of the course is to familiarize the student with the principal Latin American writers of the modern period. The focus will be dual: the progressive sophistication of literary technique and the refinement of social conscience. Among the authors to be studied are: Asturias, Borges, Carpentier, Cortazar, Donoso, Fuentes, Garcia Marquez, Paz, Rulfo and Vargas Llosa. Also offered as Spanish 5550.

**453 Spanish-American Short Story (3).** A study of Spanish-American short stories from Romanticism to the present. Also offered as Spanish 5553.

**460 U.S.-Latino Literature (3).** An interdisciplinary approach to U.S.-Latino Studies, including both literary and cultural texts. The course will be taught in English, the language in which the texts are produced. Also offered as Spanish 5560.

**480 Special Topics (1-3).** Each time this course is offered a particular genre or area of literature will be treated. Topics will be announced in advance. May be repeated for credit when the topic changes. Permission of the department chairman is required. On demand.

**490 Special Readings (1-3).** Intensive readings in field or literary figure to be selected by the student in consultation with the instructor. Available, by permission only, to advanced students of Spanish; available only when student cannot take regularly scheduled courses. Prerequisite: 3.0 GPA. On demand.

**499 Senior Seminar (Capstone) (3).** Required for major. Covers seminal works of Peninsular and Latin American literature in their historical and cultural context. Course content varies, but will include such elements as geography, politics, folklore, history of the language, architecture, art and music. To be taken during final Fall Semester of residence. Prerequisite: 18 hours beyond first year Offered: Fall

## Special Education Courses

**407 Educating Exceptional Children And Youth (3).** An introductory course in special education concerning issues, theories, and practices for educating the exceptional student in both general and special classrooms or settings; identification and educational intervention procedures for children and adolescents with exceptionalities, including behavior disordered; learning disabled, mentally retarded, speech impaired; visually impaired, physically impaired, hearing impaired, multihandicapped and gifted.

## Statistics Courses

**234 Mathematics For Teachers: Probability And Statistics (3).** Designed for elementary-and middle-school mathematics teachers. Foundational knowledge of probability and statistics, elements of statistics, organizing, displaying and describing data, probability distributions, correlation, regression, prediction, estimation.

**235 Elementary Statistics (3).** An introduction to descriptive and inferential statistics. Organization and presentation of data, averages and variations, elementary probability, random variables, special discrete distributions, normal distributions, sampling distributions, point estimation, confidence intervals, and hypothesis testing. Credit will not be given for both Stat 235 and Stat 236. Prerequisite: 4 units high school math or math 110. Semester offered: Fall, Winter, Summer

**236 Applied Statistics For Public Administration (3).** Designed for students in business, public administration, and urban studies; will cover descriptive and inferential statistics, elementary probability, analysis of nominal and ordinal data, regression analysis; will use a statistical software package to apply the tools of statistics and answer quantitative questions. Credit will not be given for both Math 235 and Math 236. Prerequisite: 4 units high school math or Math 110

**436 Introduction To Mathematical Statistics I (3).** Sample space, conditional probability, random variables, probability distribution functions and probability densities; transformations of random variables, mathematical expectation, conditional distributions and expectations, laws of large numbers and limit theorems, applications. Prerequisite: Math 250. Fall.

**441 Introduction To Mathematical Statistics II (3).** Sampling Distributions; point estimation; internal estimation; hypothesis testing; analysis of variance; nonparametric methods; statistical software applications; topics in Applied Statistics. Prerequisites: Stat 436. Offered: Winter

## String Bass Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman String Bass I (2-4).**

**102 Freshman String Bass II (2-4).**

**201 Sophomore String Bass I (2-4).**

**202 Sophomore String Bass II (2-4).**

**301 Junior String Bass I (2-4).**

**301J Junior St Bass I (Jazz) (2).**

**302 Junior String Bass II (2-4).**

**302J Junior St Bass II (Jazz) (2).**

**401 Senior String Bass I (2-4).**

**401J Senior St Bass I (Jazz) (2).**

**402 Senior String Bass II (2-4).**

**402J Senior St Bass II (Jazz) (2).**

## Teacher Education Courses

**130 Number Systems And Related Topics (3).** This course is designed for elementary perservice teachers to meet certification requirements for a course in number theory. The course provides a constructive development of the real number system, introduces concepts from elementary number theory and applies this knowledge of quantitative systems to solve various types of problems. Prerequisites: High School Algebra and Geometry Offered: Fall Semesters

**140 Geometry For Elementary Teachers (3).** This course is designed for elementary perservice teachers to meet certification requirements for a course in geometry. It provides a constructive development of axiomatic geometry and introduces concepts from transformation geometry. Elements of spatial sense and measurement are included and an emphasis is placed on applying

this knowledge to solve various types of problems. Prerequisites: High School Algebra and Geometry Offered: Winter Semesters

**201 Children's Literature (3).** Survey of books for children. Attention given to standard aids for selection, criteria for evaluating different types of literature and creating an environment for response to literature. A primary focus on multicultural literature for children. Fall

**350 Multi-Media Production For The Classroom (1).** An introductory course in the media production techniques involving knowledge and practical use of computers, scanners, digital video, digital audio and graphics to create professional multimedia for use in the classroom. The class is designed for prospective and current classroom teachers.

**385 Teaching and Learning with Technology (3).** This is an introductory course that covers the fundamentals of standard educational computer applications in addition to providing basic concepts regarding classroom hardware and software integration. This course familiarizes students with the National Educational Technology Standards for Teachers and Students. Because of the computer's increasing importance in all phases of education, hands-on experiences are required throughout the course.

**400 Child Development (3).** Intellectual and social development from birth through middle childhood and their implications for the educative process.

**402 Creative Activities (3).** Basic principles of creativity and their application in the multicultural teaching of art, creative dramatics, creative movement and musical rhythmic interpretation will be explored. An emphasis will be placed on the interrelationship of these disciplines and integration into the curriculum.

**403 Educational Psychology (3).** This course will provide an introductory examination of psychological research and theory which have implications for, and applications to learning and instruction in interactive social contexts, such as classrooms.

**404 Education Of The Exceptional Child And Youth (3).** Students will be introduced to identification and educational intervention procedures for educating exceptional children and adolescents in mainstream classroom situations. Fall and Winter.

**405 Field Experience (1).** To introduce students to a critical examination of the complex nature of teaching, learning, children and schooling in general - in school and preschool settings. Students will be expected to spend 30 hours at classroom sites during the semester.

**406 Field Experience - Early Childhood Elementary And Middle (1).** Taken in conjunction with elementary and middle school methods courses. Students are expected to spend 60 hours at classroom sites during the semester.

**407 Field Experience - Elementary And Middle 3 (1).** This course will be taken in conjunction with the elementary and middle school methods courses. Students will be expected to spend 60 hours at classroom sites during the semester.

**408 Introductory Foundations (3).** The course will concentrate on the development of a philosophical, historical and social model to assist in understanding the complexities, strengths and problems of present day education. Fall and Winter.

**409 General Methods Elementary And Middle I (3).** This course will focus primarily on school and classroom organization and management, detailed lesson planning, use of instructional materials and media and the analysis of teaching through videotaping. Winter.

**410 General Methods Elementary And Middle 2 (2).** The focus will be on basic curriculum development, developing and understanding of teaching/learning styles and varied instructional methodologies. Continued emphasis will be placed on reflective thinking through class discussion, modeling activities and written assignments. Fall.

**412 Language Arts In The Elementary And Middle School (3).** Provides instruction in planning, implementing and assessing language arts activities. Critical analysis in classroom settings is emphasized. Other issues discussed include: literature-based instruction, multicultural perspectives, special needs students and professional behaviors. Fall.

**413 Mathematics in the Elementary School (3).** Mathematics-specific pedagogy. Methods, techniques, tools and materials for the effective teaching of mathematics. Emphasis on problem solving and reasoning skills in applying mathematics and on teaching in the context of diverse student backgrounds. Four contact hours per week include a two-hour laboratory. Fall.

**414 General Methods Elementary And Middle - 3 (2).** To summarize and synthesize the pre-service educational experience. To become knowledgeable about the realities of a school life in a "real" classroom. Winter.

**415 Reading 1 (4).** An examination of basic instructional concepts and practices used to teach reading. Instructional concepts are applied during a supervised field experience. Fall.

**416 Reading 2 (4).** Focus on reading assessment and instructional techniques effective in classroom situations. Includes such topics as: the interpretation of

test scores, instruction to meet pupil needs, management of groups and content area reading. A supervised urban field experience provides a means for applying teaching and assessment knowledge. Winter.

**417 Science Methods In The Elementary And Middle School (3).** The science methods course is designed to prepare elementary teachers to teach science as both content (major conceptual schemes) and process skills (problem solving). A variety of “hands-on, minds-on” activities are utilized. An additional contact hour (for a total of 4 per week) is scheduled due to the laboratory orientation. Winter.

**418 Social Studies Methods In The Elementary And Middle Schools (3).** A critical analysis of current practices, teaching methods, materials and the relationship of the social sciences to social studies. Emphasis is on understanding cultural diversity and cultural influences on learning. The planning, implementation and evaluation of an interdisciplinary social studies unit of instruction, focusing on competencies and skills needed for the 21st Century. Fall.

**419 Student Teaching In Elementary School (3-12).** Observation and student teaching under supervision in an elementary school. Elementary majors must enroll in 12.0 credit hours. Music education majors enroll in 3.0 or 7.0 hours; art education and foreign language education majors enroll in 7.0 hours. Prerequisite: Formal approval by faculty Offered: Winter

**420 Adolescent Development (3).** Various aspects of physiological, emotional, cognitive, social and moral development in adolescence will be considered. Attention is focused on a conception of adolescence that is grounded on current research and theory. Fall.

**422 Field Experience - Secondary 2 (1).** A continuation of Field Experience Secondary 1. Further development of observation, interview and analytic skills. Teaching experiences such as teacher aid and/or tutor will be included. Students will be expected to spend 60 hours at classroom sites during the semester.

**423 Practicum II Middle and Secondary (0).** A continuation of Practicum II. Further development of observation, interview and analytic skills. Teaching experiences such as teacher aide and/or tutor will be included. Students will be expected to spend 60 hours at classroom sites during the semester. Prerequisites: TCH ED 405 and TCH ED 422 Offered: Fall

**424 General Methods - Secondary 1 (2).** Basic principles of teaching at the secondary level. This course is to be based on significant research in the area and will encourage a reflective style of teaching. Winter.

**425 General Methods - Secondary 2 (2).** The intent of this course is to prepare pre-service teachers to be effective managers of instruction who are skillful in interpersonal communication. Course activities include opportunities for applying techniques based upon a variety of management/discipline models. Field experiences permit on-site observation of various management styles. Winter.

**427 Reading In The Secondary School (3).** An examination of the reading process and study of methods and materials used by the secondary school classroom teacher in assessing student reading ability, determining the readability of content area materials and teaching students of all reading levels how to comprehend their textbooks and other printed instructional materials in various content area subjects. Winter.

**432 Special Methods Of Teaching English to Middle School and High School Students (3).** This course stresses the understanding, skills and information pertinent to teaching English/language arts in middle schools and junior and senior high schools. Fall.

**433 Special Methods Of Teaching Middle and Secondary Mathematics (3).** Provides students the opportunity to develop and present lessons in various high school mathematics topics. The emphasis is on modeling the concepts introduced and on using strategies that enable students to discover generalizations for themselves. Fall.

**436 Special Methods Of Teaching Secondary Social Studies (3).** The primary goal of this course is to enable preservice social studies teachers to reflect critically on curriculum and pedagogy in secondary social studies. Students will be introduced to current practices and issues in secondary school social studies. Fall.

**437 Student Teaching In Secondary School (3-12).** Observation and student teaching under supervision in a secondary school. Secondary majors not specifically listed here must enroll in 12.0 credit hours. Music education majors enroll in 3.0 or 7.0 hours; art education and foreign language education majors must enroll in 7.0 hours. Prerequisite: Formal approval by faculty Offered: Winter

**440 Introduction To Early Childhood Education (3).** Introduction to the field of early childhood care and education, birth to age 8. Designed to familiarize future practitioners with the unique characteristics of early childhood education and its practice.

**441 Literacy Development I (3).** An introduction to how language is acquired and how to facilitate oral language expression in early childhood classrooms.

**442 Observation, Assessment & Screening In Early Childhood Classrooms (3).** This course is designed to identify developmentally appropriate ways to measure and evaluate child growth and development.

**444 Mathematics In Early Childhood And Elementary Schools (3).** The course prepares teachers who can create a learning environment in which mathematical concepts are drawn from and modeled within the child's active investigation of his or her own surroundings and views of the world. The emphasis is upon mathematics as a sense-making tool through which observation, action, classification, ordering, seeking patterns and common features, and testing of ideas come together to organize experiences and solve problems in the immediate environment. Stress is placed on methods and materials to make mathematics learning active and hands-on. A variety of materials, physical models, and tools are studied in terms of the way they can be used to help children explore, develop and test ideas, construct meaning, and communicate ideas.

**445 Science In Early Childhood And Elementary Schools (3).** Focus on ways of involving young children in science activities and experiences designed to promote curiosity, investigation and self-awareness as they explore their world.

**447 Social Studies In Early Childhood & Elementary Schools (3).** This course is designed to help students understand basic social studies concepts and pedagogy for young learners.

**450 Integrating The Curriculum In Early Childhood Education (4).** A culminating curriculum course for early childhood students. The overall goal is to help students become more aware, skilled and informed about developmentally and educationally appropriate practice and curriculum for children during early childhood. Its focus is on constructing an integrated curriculum. A field-based experience is included.

**451 Child Guidance Within The Classroom (3).** Designed to help students examine and evaluate guidance techniques and teaching strategies used in classrooms for young children. Preventive measures in classroom management will be stressed.

**452 Family And Program Relationships In Early Childhood Education (4).** Provides insight into the challenge of parenting, knowledge about the development and implementation of parent education and support programs, and the significance of school-family relationships. In addition, this course seeks to facilitate students' understanding of and sensitivity to parents' perspectives regarding the care and education of their young children. (Concurrent enrollment in Teacher Education 452, Learning from Parents, required).

**453 Learning From Parents (2).** Designed to provide students with direct interactions with parents whose children are participating in early childhood programs, birth to age 8. Emphasis is placed upon students' understanding of, and sensitivity to, parents' perspectives regarding the care and education of their young children and recognition of parents as significant informants about their children. (Concurrent enrollment in Teacher Education 452, Family and Program Relationships, required).

**454 Human Relations In The Early Childhood Classroom (3).** Students will analyze the connections between an effective helping relationship and effective teaching in the early childhood classroom. Effective interpersonal communication skills will be identified and practiced. The development of self-concept will be discussed.

**455 Student Teaching In Preschool (6-10).** Observation and student teaching under supervision in a preschool setting.

**456 Student Teaching In Elementary, K Through 3 (6-12).** Observation and student teaching under supervision in an elementary school, grades K through 3.

**457 Infant And Toddler Care And Education (3).** In this course, students will investigate infant and toddler care and education theories and practices. Students will learn about appropriate curriculum and teaching methods, visit infant and toddler programs, learn about state regulations and national standards for quality, and complete an environment rating scale.

**458 Practicum For Learning About Infants And Toddlers (1).** The purpose of this course is to learn about child care and education practices in various centers. We will discuss how practices are influenced or constrained by human biology and developmental stages, as they are by ecological and environment pressures such as mothers' work roles. The central themes of the course can be summarized by the phrases “purposeful care practices” and the “optimal practices for infants and toddlers.”

**459 Early Childhood Program Management And Advocacy (2).** Students will begin to explore basic early childhood program components. Different types of advocacy will be presented, discussed, and implemented. Prerequisite: TE 440

**460 Middle School Curriculum (2).** Provides an examination of middle school curriculum with an emphasis on developing interdisciplinary curriculum and instructional strategies appropriate to the middle school level learner. Curricular issues are examined within the context of middle school principles. Prerequisite: Admission to Teacher Education Program or consent of instructor. Offered: Summer/Fall

**461 Student Teaching In Middle School (6-12).** Observation and student teaching under supervision in a middle school setting.

**462 Middle School Principles And Organization (2).** This course offers an overview of middle school goals, basic principles, and organization. The course will explore interdisciplinary teaming, flexible scheduling, exploratory and advisory programs and other aspects of middle school organization within the context of middle school goals and practices. Prerequisites: Admission to Teacher Education Program or consent of instructor. Offered: Summer/Fall concurrently with TE 460.

**470 Philosophy And History Of Science And Technology (3).** This course uses an historical survey to introduce the main philosophical interpretations of the nature and structure of both science and technology. Core concepts such as prediction, explanation, progress, truth, and utility will be examined in light of various philosophical perspectives. Following this, case study methodology will be used to examine interactions among science, technology, and society. Although the major focus will be upon modern Western culture, some attention will be paid to earlier and non-Western cultures. Case studies to be examined include: under the topic of Risk: Perception and Estimation, nuclear power and pesticides; the impact of high technology upon medicine; and the estimated cost/benefit of computer-mediated communications, for example, the Internet. Offered: Fall Semester.

## Theater Courses

**100 Topical Studies In Theatre Practice (1-3).** (A, B, C, D) This course provides students with an opportunity to explore special offerings in theater practice. No prerequisite. Does not fulfill general education course requirement in the Fine Arts or Humanities. May count for elective credit in the Theatre major. Different sections of the course may be repeated. On demand.

**101 Introduction To Acting (3).** An introductory course to acquaint the freshman theatre major and non-major student with the process of acting through relaxation and improvisational exercise.

**113 Introduction To Technical Production (3).** An introduction to the technical production process with emphasis on production organization, planning and scenic construction techniques. Required laboratory work.

**121 Oral Interpretation Of Literature (3).** Principles of interpretation, analysis and oral reading of prose and poetry. Emphasis upon platform performance: body language, vocal control and performance techniques.

**130 Foundations Of Fine Arts Theatre (3).** An introduction to theatre arts and a general orientation to the creative and technical aspects of live performance. Includes historical overview, analysis of the components of a play, and observation of and critical reaction to theatrical productions. Frequent guest speakers.

**180 Theatre Production I (1).** A practicum course in theatre to be elected for one credit each semester during the freshman and sophomore years. The student will be assigned to a different area each semester. High school students may elect for college credit. Every semester.

**295 Speech For The Theatre I (3).** Training in voice and articulation and the techniques of adaptation to the needs of the artist-performer in the theatre: exercises to free the voice, develop effective breathing, tone production, articulation, flexibility of vocal production, and projection.

**298 Movement For Actors (3).** Basic movement training including relaxation and alignment techniques, exercises to increase physical facility and skills to enhance rhythmic coordination and physical characterization. Theatre 298A prerequisite for theatre 298B. Fall/winter.

**300 Acting I (3).** Basic principles of dramatic performance: training in voice, movement and language as an organic developmental whole.

**300CH Cluster Course: Healing And The Arts (3).** This course explores the healing potential of theatre fine arts, music and narrative literature in the lives of their creators, those who experience the works of art and in society as a whole. This course fulfills the Cluster Course Requirement. Prerequisite: None Offered: Winter Semester

**300CR Interdisciplinary Studies:Special Topics (3).** Faculty from at least two different departments (one of which must be a department in the division of humanities, including history) may determine the topic and syllabus, subject to the approval of the director of Integrated Studies and the programs advisory committee in addition to the approval of the departments involved. This special topics course will satisfy the interdisciplinary course requirement for the B.A. Winter.

**300CS Cluster Course: History Of Russian Culture (3).**

**315 Acting II (3).** Textual analysis, characterization and building a role. Prerequisite: Acting I.

**317 Scene Design (3).** Introduces the mechanics of layout: perspective, basic drafting techniques, front elevation and floorplan execution. Second half of the semester emphasizes scenic design as an art form. Prerequisite: Theatre 113 (Theatre 4311 recommended) or consent of instructor.

**325 Acting III (3).** Study and practice of period and contemporary styles of acting. Prerequisite: Acting II. Each semester.

**329 Master Class In Acting (2).** (A,B,C,D) Class in advanced studies in acting. May be repeated for credit up to eight hours and guest artist change. Prerequisite: Acting III.

**331 Advanced Oral Interpretation (3).** Oral interpretation of poetry and prose. Careful analysis of selected masterpieces as art forms and an application of the aesthetic discipline to the oral reading of literature.

**333 History Of Costuming (3).**

**340 Stage Makeup (1).** Lecture and laboratory work in the fundamentals of makeup for the stage.

**350 Theater History I (3).** Development of theater art, including the physical stage, technical production elements, dramatic literature, and audience behavior from primitive origins to the 18th century.

**351WI Theater History II (3).** Development of Theater art, including the physical stage, technical production elements, dramatic literature, and audience behavior from the 18th century to the present.

**352 History Of Costuming (3).** The study of the history of costume, with emphasis on the social and economic ramifications of costuming through the ages.

**371 Stage Lighting (3).** First half of the course introduces the student to the technical aspects of stage lighting through lectures, laboratory and crew work. Second half of semester involves the student in the fundamentals of design theory and procedure.

**373 Master Class In Technology (2).** Class in advanced studies in technology. May be repeated for credit up to eight hours as content and guest artist change. Permission of instructor or head of area required.

**378 Stage Management I (3).** A functional analysis of the duties and responsibilities of the stage manager, with particular reference to the organization and conducting of rehearsals and performances, professional practices and union requirements. Requires student to be an assistant to a stage manager on a University or an MRT production. The first of a two-semester requirement in stage management for theater majors.

**379 Master Class In Design (2).** Class in advanced studies in design. May be repeated for credit up to eight hours as content and guest artist change. Permission of instructor or head of area required. Undergraduate students elect theater 379.

**380 Theater Production II (1).** (A,B,C,D) A practicum course in theater to be taken one hour each of the last four semesters. The student will work in various areas each semester, to be selected from: (1) scenery construction, (2) scene painting, (3) stage crew, (4) wardrobe, (5) properties, (6) lighting, (7) house management, (8) assistant stage management. As advanced theater majors, each student will be expected to accept crewhead responsibilities and demonstrate proficiency in the areas selected. Prerequisite:Theater 113. Fall/winter/summer.

**395 Speech For The Theater II (3).** (C,D) Theater 395 is a continuation of Theater 295. The objective of these classes is: training in voice and articulation and the techniques of adaptation to the needs of the artist performer in the theater: exercises to free the voice, develop effective breathing, tone production, articulation, flexibility of vocal production, and projection. Prerequisites: Theater 295A and 295B.

**400 Special Problems In Theatre (1-6).** (A-M) Research and/or production projects for advanced upperclass students. No more than three hours with any one instructor. Prerequisite: Consent of instructor. (A) Acting; (B) Children's Theatre; (C) Costumes; (D) Scenic Design; (E) Directing; (F) History; (G) Lighting; (H) Playwriting; (I) Sound; (J) Stage Management; (K) Technical Production (L) Theatre Management; (M) Theory and Criticism.

**400A Special Problems In Theatre: Acting (1-6).**

**400B Special Problems In Theatre: Design (1-6).**

**400C Special Problems In Theatre: Costumes (1-6).**

**400CC The Practice and Theory of Creativity - Cluster Course (3).** A team taught multidisciplinary course for undergraduate students that fosters awareness of the nature and power of creativity, One third of the class covers current literature on the creative process. The remainder uses arts as a catalyst

for creative individual and group projects that foster communication and remove barriers to creativity. Throughout the course processes are taught which integrate creativity with the discipline necessary to realize the creative objective. Cross-listed with Cons. 434CH

**400CH Special Problems In Theatre (1-6).**

**400D Special Problems In Theatre: Scenic Design (1-6).**

**400E Special Problems In Theatre: Directing (1-6).**

**400F Special Problems In Theatre: History (1-6).**

**400G Special Problems In Theatre: Lighting (1-6).**

**400H Special Problems In Theatre: Playwriting (1-6).**

**400I Special Problems In Theater: Sound (1-6).**

**400J Special Problems In Theatre: Stage Management (1-6).**

**400K Special Problems In Theatre: Technical Production (1-6).**

**400L Special Problems In Theatre: Theatre Management (1-6).**

**400M Special Problems In Theatre: Theory And Criticism (1-6).**

**400N Special Problems In Theatre: Dramaturgy (1-6).**

**400P Special Problems: Storytelling Art And Technique (1).**

**400R Special Problems In Theatre (1-6).**

**400S Special Topics In Theatre (1-6).**

**400T Special Problems In Theatre (1-6).**

**400U Special Topics In Theatre (1-6).**

**400X Special Problems In Theatre (1-6).**

**401CH Cc: The Practice And Study Of Creativity (3).** This cluster course will provide students with a deep understanding of the mechanics value power and challenges of creativity in all aspects of their lives, allowing them to continually adapt themselves to a rapidly changing world and to become outstanding community leaders. The class will foster awareness of the nature and power of students' creativity from three different perspectives: visual arts/art history, theatre/dance, and music composition/performance. This course is cross-listed with CONS 497CH.

**415 Beginning Directing (3).** Theory and process of play production, including interpretation, composition, picturization, movement, rhythm, and character interpretation.

**425 Advanced Directing (3).** Continuation of work in Theatre 415, with special attention to proscenium, arena, and thrust staging techniques. Prerequisite: Theater 415 or equivalent experience.

**431 Rendering Techniques For The Theatre Designer I (3).** Introduces the mechanics of handling black and white media to develop three-dimensional technique with an emphasis on observational training and object drawing.

**432 Costume Design (3).** The practice of the theatrical costume design, leading to the preparation of designs for production, and the execution of designs in actual costuming for the stage.

**437 Playwriting I (3).** Theory and practice of writing for the theatre with emphasis on the basic techniques.

**438 Playwriting II (3).** Theory and practice of writing for the theatre with emphasis on advanced techniques.

**476 Theatre Sound And Electronics (3).** Study of electronic principles used in audio and control devices. Concentrates on applying knowledge to using the equipment employed in the theater such as sound-effect systems, inter-communication equipment, and includes a special section on the creation of sound and music for theatre productions.

**478 Stage Management II (2).** Practicum course in stage management. Requires stage management of a University production and/or assistant stage management of an MRT production and/or assistant stage management of a main stage University production. Prerequisite: Theater 378 or consent of instructor. Fall/ winter/summer.

**489 Seminar In Professional Theatre (1).** This course shall be conducted by a visiting artist who is in residence with either Missouri Repertory Theatre or the academic theater. Both student work and the work of the visitor shall be analyzed and criticized in this semester. Fall.

**497 Repertory Theatre (3-6).** Apprentice-level responsibilities for Theatre 497 are as follows: apprentices will be used in as many production areas as possible: (1) as actors in small roles and/or extras or supers; (2) as understudies if possible; (3) as needed in the following departments: (a) properties; (b) carpentry and the shop; (c) lighting; (d) costumes; (e) house management; (f) stage management; (g) running crews. Prerequisite: Selection for apprenticeship by departmental chairman. Each semester.

## Trombone Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Trombone I (2-4).**

**101J Freshman Trombone I (Jazz) (2).**

**102 Freshman Trombone II (2-4).**

**102J Freshman Trombone II (Jazz) (2).**

**201 Sophomore Trombone I (2-4).**

**201J Sophomore Trombone I (Jazz) (2).**

**202 Sophomore Trombone II (2-4).**

**202J Sophomore Trombone II (Jazz) (2).**

**301 Junior Trombone I (2-4).**

**301J Junior Trombone I (Jazz) (2).**

**302 Junior Trombone II (2-4).**

**302J Junior Trombone II (Jazz) (2).**

**401 Senior Trombone I (2-4).**

**401J Senior Trombone I (Jazz) (2).**

**402 Senior Trombone II (2-4).**

**402J Senior Trombone II (Jazz) (2).**

## Trumpet Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Trumpet I (2-4).**

**101J Freshman Trumpet I (Jazz) (2).**

**102 Freshman Trumpet II (2-4).**

**102J Freshman Trumpet II (Jazz) (2).**

**201 Sophomore Trumpet I (2-4).**

**201J Sophomore Trumpet I (Jazz) (2).**

**202 Sophomore Trumpet II (2-4).**

**202J Sophomore Trumpet II (Jazz) (2).**

**301 Junior Trumpet I (2-4).**

**301J Junior Trumpet I (Jazz) (2).**

**302 Junior Trumpet II (2-4).**

**302J Junior Trumpet II (Jazz) (2).**

**368 Orchestral Literature for Trumpet (1).** Intended to introduce students to the standard repertoire for orchestral trumpet; class meets once weekly for an hour. Students will be expected to prepare and play approximately a dozen works per semester, rotating parts in a full trumpet section. Prerequisite: Permission of faculty

- 401 Senior Trumpet I (2-4).**  
**401J Senior Trumpet I (Jazz) (2).**  
**402 Senior Trumpet II (2-4).**  
**402J Senior Trumpet II (Jazz) (2).**

## Tuba Courses

- 100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.
- 100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.
- 100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.
- 100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.
- 101 Freshman Tuba I (2-4).**  
**102 Freshman Tuba II (2-4).**  
**201 Sophomore Tuba I (2-4).**  
**202 Sophomore Tuba II (2-4).**  
**301 Junior Tuba I (2-4).**  
**302 Junior Tuba II (2-4).**  
**401 Senior Tuba I (2-4).**  
**402 Senior Tuba II (2-4).**

## Urban Planning and Design Courses

- 101 Introduction To Urban Studies (3).** This lecture and discussion course provides the undergraduate student with an overview of the interdisciplinary field of urban social science. The student who successfully completes this course will have a broad understanding of the major issues, vocabulary, basic methods, and prominent scholars in urban studies. We will also explore current events of relevance, including the opportunities and problems facing major cities in the United States including Kansas City. Also cross listed as Urban Studies 101. Offered: Fall
- 203 GIS For Urban Planning (3).** This introductory level GIS course is designed to expose planning students to Geographical Information Systems (GIS). Students will learn basic concepts and theories of GIS and applications of GIS software with hands-on experience. Students will also learn how to search for demographic, socio-economic, land use, transportation, and geospatial data, and how to use such data for their academic research and professional planning work with GIS. Students will apply GIS to the multiple scales of planning work. Offered: Fall
- 260 History Of Planning And Urban Design (3).** An overview of planning history with an emphasis on the 19th and 20th centuries. The historic framework will include urban history, the rise and development of urban planning, urban design, and social theory and how these areas have affected the shape of our cities. Offered: Fall
- 280 Land Use Planning (0).** This course explores the basic principles of plan making, land use development and regulation. Students are introduced to contemporary planning and policy issues. Including land use conflicts and alternative models for sustainable planning, design and management. Students will learn how to develop a land use plan using Geographic Information Systems (GIS) and other design tools. An introductory GIS course (UPD 203) is highly recommended. Offered Spring
- 300 Quantitative Planning Methods And Techniques (3).** Statistical analysis and other analytic techniques of data gathering. Data and problems framed from complex, real world situations. Competence in first-hand research; survey design; case study method; data gathering methods such as observation, open-ended interviewing and questionnaires. Offered: Fall
- 310 Planning And Design Studio I (4).** The urban planning and design studio will introduce to the student a methodology of designing urban spaces. Students will actively participate in problem solving and determine the physical shaping of communities and cities, while developing abilities in graphic methods of communication and Presentation. The application of principles of urban design, social, political, cultural, economic and environmental considerations will help inform solutions. Students will have the opportunity to work interactively with a wide spectrum of professionals, neighborhood leaders, and political entities in developing strategies for

solutions to real urban situations. Students are asked to supply their own computer for the course. Students should consult with the department before purchasing the computer. Prerequisite: ENVD 201,202 Offered: Fall  
 Restrictions: Consent of Department

**312 Planning & Design Studio II (4).** This course integrates material from Quantitative Methods in Urban Planning. Instruction in urban planning and design focusing on the synthesis of land use analyses, regulatory reviews, urban design issues, and public participation facilitation. Continued instruction in techniques for visually presenting planning and design ideas. Prerequisite(s) UPD 310, UPD 300 Offered: Winter Restrictions: Consent of Dept. of Architecture, Urban Planning & Design

**320 Planning Theory (3).** This course examines contemporary urban planning and design practice. Theories about planning practice and related case studies will be the basis of this course. Topics covered will include the definition of urban planning, the idea of the "public realm," planning/design expertise and the rational model, the role of diversity, public participation, communicative planning, advocacy and equity planning, ethics comprehensiveness and the limits of planning. The course is writing intensive and will include assignments that will build student's ability to write quick and analytical assessments, often required in planning practice. Students will be required to attend public planning forums in and around the region. Offered: Winter

**340 Neighborhood And Community Development (3).** Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the U.S. will serve as the basis. Issues explored include: community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization. Offered Fall

**400 Advanced GIS For Urban Planning (3).** This advanced level GIS course is designed to expose students to high level GIS techniques and geospatial analyses in urban planning. Students will learn advanced theories and geographic information tools with hands-on experiences. Students will have an opportunity to apply their knowledge and skills in GIS to a real world planning project in class. Offered Spring

**401 Portfolio and Resume Development (1).** This class focuses on the development of portfolios necessary for professional advancement in the design fields. Students examine the various types of resumes and portfolios that can be used in different employment situations. Student will be exposed to the many design decisions that must be made when developing a resume and portfolio. Offered Spring

**410 Planning & Design Studio III (4).** Instruction in problem analysis and plan development for defined urban or suburban location with multiple constituencies. Prerequisites: UPD 312 and not more than one grade of D in a UPD studio course. Restrictions: Permission of Department. Offered: Fall

**411 Professional Practice I (1).** This course prepares students for professional practice in planning and design. Issues to be addressed in the seminar include mediation, public meeting facilitation methods and presentation skills. Students engage in writing assignments addressing urban plans and designs concurrent with their work in UPD 410. Offered Fall

**412WI Planning And Design Studio IV (5).** Capstone course that incorporates a topical plan or a comprehensive plan for a client comprising a development subdivision, a community or a redevelopment area. Prerequisites: UPD 410 and not more than one grade of D in a UPD studio course. Offered: Spring

**413 Professional Practice II (1).** A continuation of professional practice seminar addressing issues of Urban Planning and Design practice including different career options in the public, private, and the nonprofit sectors. The course will chart a path of successful post graduation professional development. Restrictions: Concurrent enrollment in UPD 412WI. Offered Spring

**420 Transportation Planning (3).** The course provides fundamental theories, methods, and contemporary issues in transportation planning. The topics covered in this course include the transportation planning process, transportation systems, travel demand analysis, and policy issues such as the linkage between land use and transportation, urban transportation finance, social and environmental justice, transportation and environmental impacts, and traffic congestion. Offered Fall

**430 Planning For Historic Preservation (3).** The course provides a survey of major issues in the field of historic preservation and heritage studies from a planning perspective. Will focus primarily on the built environment of the United States, as well as world heritage sites and international perspectives. The course will include the urban planning techniques used for preserving historic buildings, neighborhood and districts, as well as some of the landmark legal decisions and legislation that have shaped heritage preservation practice in the U.S. Prerequisite: UPD 260 Offered: Fall 2005

**432 Urban Environment Planning And Design (3).** The built environment does not exist in a vacuum. Cities operate within broad ecological processes. Effective environmental planning can protect important natural resources while providing for a higher quality of life for urban residents. As a survey course in a subfield of urban planning, this course introduces students to environment planning approaches and techniques. Prerequisites: UPD Urban Planning Theory and Practice recommended. Offered: Spring

**440 New Urbanism (3).** This course will focus on all the components of the New Urbanism—from the region to the block and the building. It will give a detailed analysis of the history and techniques of NU, and the current state of the practice. The course will be a combination of lecture and field work, as students will be asked to participate in exercises that will deepen their understanding of the built environment.

**450 Planning Law & Practice (3).** Introduction to legal procedures basic to urban planning, including legal, constitutional, legislative, and administrative concepts, controls, and land-use regulations. Offered Fall

**472 Urban Redevelopment (3).** Contemporary issues of urban redevelopment, with an emphasis on American cities, will be examined. Redevelopment processes recently completed or underway in the greater Kansas City region will be the subject of a case study and a theoretical review by each student. Offered: Fall

**490 Urban Planning Internship (3).** Work experience off-campus with an approved professional, Government, or non-profit agency sponsor. A contract specifying the expected product of the internship is required between the student, agency and faculty coordinator. Prerequisites: UPD 310 Urban Planning Studio I, UPD 312 Urban Planning Studio II, Geo 401 GIS Mapping. Restrictions: Consent of the Department.

**496 Directed Studies In Urban Planning (1-3).** Intensive reading and/or research in an area selected by the student in consultation with the instructor. Prerequisites: UPD 260, 270 and 300 Offered: On Demand Restrictions: Permission of instructor Offered Fall and Spring

**499 Special Topics In Urban Planning (1-3).** Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment. Offered: Every semester Restrictions: Permission of instructor

**499D Special Topics In Urban Planning (1-3).** Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment. Offered: Every semester Restrictions: Permission of instructor

**499E Special Topics In Urban Planning (1-3).** Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment. Offered: Every semester Restrictions: Permission of instructor

**499F Special Topics In Urban Planning (1-3).** Advanced independent research and analysis in urban planning. Topics and methods used in research, to be established by student and academic supervisor prior to enrollment. Offered: Every semester Restrictions: Permission of instructor

## Urban Studies Courses

**100 Neighborhood And Community Development (3).** Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the United States will serve as the basis. Issues explored include: Community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization. Also cross listed as UPD.340

**101 Introduction To Urban Studies (3).** Introduction to Urban Studies is a lecture and discussion course that provides the undergraduate student with an overview of the interdisciplinary field of urban social science. The Student who successfully completes this course will have a broad understanding of the major issues, vocabulary, basic methods, and prominent scholars in urban studies. We will also explore current events of relevance, including the opportunities and problems facing major cities in the United States including Kansas City. Also cross listed as UPD 101.

**340 Neighborhood and Community Development (3).** Course provides a comprehensive introduction to the field of community development and neighborhood planning. The development of theoretical models that explain neighborhood change and history in the U.S. will serve as the basis. Issues explored include: community organizing, social movements, federal and state policies, and the role of planning organizations and community development corporations in neighborhood revitalization. Prerequisite: none

**495 Urban Studies Internship (1-6).** Students obtain directed practical experience working with non-profits, governments, or private enterprises. Duties will vary based on contractual agreement between the student, host organization, and the professor. Students should have junior standing or higher

and the instructor's permission. Prerequisite: Permission of the instructor. Offered: Summer, Fall, or Winter as available

**499WI Urban Studies Seminar (3).** This is the capstone course in the Urban Studies Program and is required for majors in the junior/senior year. Students critique urban research and prepare a paper and an oral presentation on an approved topic.

## Viola Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Viola I (2-4).**

**102 Freshman Viola II (2-4).**

**201 Sophomore Viola I (2-4).**

**202 Sophomore Viola II (2-4).**

**301 Junior Viola I (2-4).**

**302 Junior Viola II (2-4).**

**401 Senior Viola I (2-4).**

**402 Senior Viola II (2-4).**

## Violin Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**100D Applied Study For The Non-Music Major (1).** Nine one-half hour lessons. No jury required.

**101 Freshman Violin I (2-4).**

**102 Freshman Violin II (2-4).**

**201 Sophomore Violin I (2-4).**

**202 Sophomore Violin II (2-4).**

**301 Junior Violin I (2-4).**

**302 Junior Violin II (2-4).**

**401 Senior Violin I (2-4).**

**402 Senior Violin II (2-4).**

## Voice Courses

**100A Preparatory Applied Study (2).** One hour weekly lesson. Limited to two semesters study. Jury examination is required. There shall be a jury which shall be for comments only unless the student is applying for entrance to the 101 level, at which time a graded jury is required. May not be taken for credit towards the major. Consent of the instructor.

**100B Applied Study Of A Second Instrument (2).** Applied study of a second instrument. One-half hour lesson weekly. Applied study for those students who wish to pursue applied study in an area other than, and in addition to, their primary performance study. No jury examination is required. Consent of the instructor.

**100C Applied Study For The Non-Music Major (2).** Applied study for the non-music major. One-half hour lesson weekly. No jury required. Consent of the instructor.

**101 Freshman Voice I (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**102 Freshman Voice II (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**201 Sophomore Voice I (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**202 Sophomore Voice II (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**301 Junior Voice I (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**302 Junior Voice II (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**401 Senior Voice I (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

**402 Senior Voice II (2-4).** One hour weekly participation in Vocal Performance Seminar is required.

## Women's and Gender Studies Courses

**201 Introduction To Women's Studies (3).** This course will explore the lives of women from an interdisciplinary perspective. Each time this course is taught it will draw upon the disciplinary expertise of the course instructors. Offered: Every semester

**405 Special Topics In Women's And Gender Studies (1-3).** Each time this course is offered a different area of Women's and Gender Studies will be covered. This course may be repeated for credit when the topic changes. Offered: Every Semester

**499 Women's And Gender Studies: Senior Seminar (3).** This capstone course focuses on research leading to a term paper on a Women's and Gender Studies Topic. Offered: Every semester

## World Literature Courses

**210 Foundations Of World Literature I (3).** An investigation of the great ideas that inspired humankind in different cultures through the ages. These ideas will be explored as they are expressed in literature. Literary works of different ages and different cultures are included. On Demand. Also offered as Classics 210.