



WESTERN
CONNECTICUT
STATE UNIVERSITY

COURSE DESCRIPTIONS

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ACCOUNTING

ACC 504 Financial Accounting Concepts:

Preparing and Analyzing Financial Reports

3 SH

This course examines the process of recording, analyzing, and interpreting business transactions and financial reports as it relates to the financial information component of the business information system. Emphasis is placed on the understanding, interpretation, and application of financial reports.

ACC 507 Control Accounting: Analysis for Organizational Decision Making

3 SH

The course examines how the manager or professional within an organization should address financial analysis requirements in making decisions affecting such issues as: assessing organizational performance; creating a business plan for new products, subsidiaries and other initiatives; deciding whether or not to eliminate a product, division, or other organizational unit; planning for growth; creating and monitoring an integrated budget; analysis of multiperiod projects; assessing return on individual decisions; and determining an organization's most efficient cost system. *Prerequisite:* ACC 504.

ACC 598 Faculty Developed Course

This is an experimental course offered by the accounting department as a means of determining its value to the total program or in response to a particular request from a group of students.

ACC 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than one time.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies office is required.

ART

ART 510 Art Colloquium

4 SH

This course offers an awareness of contemporary critical issues is essential to the experience of a maturing artist. Exposure to a series of lectures/demonstrations by practicing professionals is an introduction to the awareness. Each visiting artist will deliver a slide lecture or demonstration on his or her work or will discuss a contemporary critical issue. Student attendance is mandatory.

ART 511 Advanced Independent Studies in Art History

9 SH

This course offers a working knowledge of art history is an invaluable resource for a practicing artist. Research in a chosen area of art history will enhance every student's artistic vocabulary. Students will select a topic or topics, and under the guidance of a mentor, will do individual research culminating in a paper or papers. To be taken incrementally over first three semesters.

ART 512 Individual Introductory Graduate Studio in Area of Emphasis

3-6 SH

This introductory graduate level studio experience will bring each student to an appropriate level of graduate work and create a consistent direction within the program. Building on undergraduate studio experience, each student will develop beginning graduate level skills and concepts in an area of expertise. Regular critiques from faculty and visiting critics will be a significant aspect.

ART 520 Individual Applied Studio

I 3-6 SH

The studio courses, taken in sequence of escalating expectations, will allow each student to develop artistically at an appropriate pace that is agreed upon between the student and the faculty adviser. Each student will work independently in his or her own studio with weekly critiques by faculty. Emphasis is on development of personal direction in artistic development.

ART 521 Individual Applied Studio II

6 SH

This is a continuation of ART 520. Students will continue to work independently to develop individual direction, thereby increasing standards of aesthetics and expertise. Weekly critiques with faculty. *Prerequisite:* Successful completion of ART 520.

ART 530 Advanced Individual Studio I

12-15 SH

Intense independent studio investigations bring the student towards a professional level of artistic maturation. Production of a significant body of work is mandatory. Weekly critiques with faculty. *Prerequisite:* Successful completion of ART 521.

ART 531 Advanced Individual Studio II

9 SH

This is the final course in independent sequence. Students will continue to produce significant quantities of ambitious work that display increasing expertise and creative maturity. Portfolio work must reflect a competitive professional level. Weekly critiques with faculty. *Prerequisite:* Successful completion of ART 530.

ART 580 Practicum Internship**3-6 SH**

This course exposes students to professional artists working in studios and offers a hands-on experience in studio techniques. Students will intern in an appropriate professional studio for hands-on experience. Not mandatory for teaching assistants.

ART 581 Individual Introductory Graduate Studio in Related Area**3-6 SH**

Expansion of areas of expertise leads to creative cross-fertilization between the student's work and in their relationships with others. A secondary area of emphasis will increase the student's artistic resources. Each student will be required to investigate a studio area parallel to their area of concentration. Weekly critiques by faculty in chosen area.

ART 590 Thesis Exhibition**6 SH**

The is the capstone of the M.F.A. program. Presentation of a graduate thesis exhibition is an integral part of the program. The thesis show is comparable to a thesis paper and should reflect the culmination of the student's individual artistic efforts. Under the supervision of a faculty adviser, the student will develop and select work suitable for professional level graduate exhibition, design appropriate publicity materials, presentations and installation of work, and mount and document the exhibition. Weekly critiques by faculty adviser and visiting critics. *Prerequisite:* Successful completion of all preceding courses except ART 531 which may be taken simultaneously.

ART 598 Faculty Developed Course

This is an experimental course offered by the art department as a means of determining its value to the total program or in response to a particular request from a group of students.

ART 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. The student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies office is required.

BIOLOGICAL AND ENVIRONMENTAL SCIENCES**BIO 500 Graduate Seminar****3 SH**

This course will include a combination of guest speakers, student presentations and roundtable discussions on current topics and papers in the biological sciences. In addition, lectures and assignments will deal with techniques of scientific literature research, scientific writing and paper presentations. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor.

BIO 504 Limnology**3 SH**

This is a study of the fundamental properties and dynamics of lakes through the interrelated aspects of physical, geological, chemical and biological processes. Studies of the evolution and eutrophication of lakes under natural and altered conditions of modern environments. *Prerequisite:* bachelor's degree in biology, or permission of instructor.

BIO 516 Current Techniques in Cell and Molecular Biology**3 SH**

Current techniques in cell and tissue culture, molecular genetics, immunology and biochemistry are covered in this course. Through laboratory work, assigned readings, lectures and discussions, students will become familiar with both the techniques and the theoretical framework on which these techniques are based.

Prerequisite: Admission to the M.A. in Biological and Environmental Sciences program or permission of instructor.

BIO 530 Population Genetics**3 SH**

This course will consider the theoretical, experimental and empirical foundations of population genetics. Topics covered will include models of natural selection and genetic drift; the neutral theory of molecular evolution; migration and population subdivision; speciation; and applications to medicine, pest control, and conservation biology. *Prerequisite:* Genetics or equivalent; Calculus I recommended.

BIO 535 Advanced Molecular Biology**4 SH**

This is an advanced course which examines the current status of gene cloning and mapping, genome analysis, and human genetic diseases. The laboratory will introduce students to techniques used in genome manipulation and analysis. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor. A background in cell biology or genetics is recommended.

BIO 536 Molecular Oncology**3 SH**

This advanced course examines the molecular mechanisms of cellular growth control, carcinogenesis, cancer

genetics and immunology, and current treatment technologies. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor. A background in cell biology or genetics is recommended.

BIO 537 Molecular Endocrinology 3 SH

This advanced course examines molecular mechanisms of hormone synthesis and structure, hormonal control of gene expression and cellular pathways, and aberrant hormone effects. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor. A background in cell biology, genetics, or human physiology is recommended.

BIO 538 Molecular Mechanisms of Animal Development 3 SH

This advanced course examines the molecular and genetic mechanisms underlying cell adhesion, cell-cell communication and signaling pathways, apoptosis, patterns and body axis formation, limb morphogenesis and sex determination in animals. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor. A background in cell biology, genetics, or developmental biology is recommended.

BIO 539 Molecular Biology of Prokaryotes 3 SH

This advanced lecture course examines the molecular mechanisms underlying prokaryotic biology. Emphasis will be on pathogenic bacteria. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of instructor. A background in microbiology, genetics or molecular biology is recommended.

BIO 540 Aquatic Vascular Plants 4 SH

The course will introduce students to the aquatic and wetland plant flora (ferns, fern allies, flowering plants) of the northeast. The lecture will focus on conceptual issues of the biology, ecology and evolution of aquatic plants. The laboratory will be devoted largely to field collection and identification of aquatic and wetland plants. *Prerequisite:* An introductory course in plant taxonomy or equivalent background.

BIO 543 Stream Ecology 4 SH

This course will cover the physical, chemical, and biological characteristics of streams and rivers including an integrated study of the environmental factors affecting the composition and distribution of biota. The role of streams and their biota in ecosystem processes will be emphasized. The laboratory will provide experience in field and lab techniques used in the study of streams. *Prerequisite:* A course in ecology or permission of the instructor.

BIO 545 Advanced Systematic Biology 3 SH

The course will focus on conceptual aspects of systematic biology. Emphasis will include phylogenetic reconstruction, species concepts, speciation, the dynamic nature of species and evolutionary factors such as hybridization, gene flow and species extinction. Students will apply conceptual issues to particular groups of interest. *Prerequisite:* An introductory course in taxonomy/systematic biology or equivalent.

BIO 551 Soil Ecology 3 SH

This course examines the dynamics of microbes and the fauna that feed upon them, within the physical and chemical environment of the soil. The role of soils and their biota in ecosystem processes will be emphasized. *Prerequisite:* A course in ecology or permission of the instructor.

BIO 555 Environmental Physiology 3 SH

This course involves discussions of principles and current research on animal regulatory mechanisms and physiological adaptations for survival in changing environmental conditions. The effects of pollution and other chemical, physical and biotic environmental stressors on animal functions are explored. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of instructor.

BIO 556 Herpetology 4 SH

The course will emphasize the biological diversity, ecology, behavior and conservation of amphibians and reptiles and address the role these organisms play as indicators of change in ecology and human health. The course will address conservation laws for amphibians and reptiles, how these laws are being implemented and their impact on the developing world during times of both economic prosperity and hardship. Saturday field trips are required. *Prerequisite:* A bachelor's degree in biology or permission of instructor.

BIO 560 Behavioral Ecology 3 SH

This course offers an examination of the manner in which animals interact with their environment. Both theoretical principles and environmental problems will be studied. Topics include optimality theory, inclusive fitness, social behavior, selfishness and cooperation, mating, reproduction and species interactions. The course will be a combination of lectures and seminar presentations by students. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor.

BIO 565 Topics in Animal Behavior

3 SH

This course will introduce graduate students without previous background in the discipline to the critical concepts and topics involved in the study of the biological basis of animal behavior. Ecological and evolutionary approaches will be stressed. Student presentations will supplement lectures by the instructor. *Prerequisite:* Admission to the M.A. in Biological and Environmental Sciences program or permission of the instructor.

BIO 592 Independent Thesis Research

1-6 SH

This course is designed for students fulfilling the thesis requirements for the degree of M.A. in Biological and Environmental Sciences. Individual conferences with the adviser are scheduled as needed. May be repeated for up to six semester hours of total credit. Credit will be awarded upon submission of an approved thesis and thesis abstract. *Prerequisite:* Submission of an approved thesis proposal and permission of the graduate coordinator.

BIO 598 Faculty Developed Study

This experimental course is offered by the biological and environmental sciences department as a means of determining its value to the total department program or in response to a particular request from a group of students.

BIO 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

CHEMISTRY

CHE 598 Faculty Developed Course

This experimental course is offered by the chemistry department as a means of determining its value to the total program or in response to a particular request from a group of students.

CHE 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies is required.

COMMUNICATION

COM 502 Workshop in Communication

3 SH

This course focuses on the study and application of the principles of effective presentations, both prepared and impromptu, with emphasis on conversational delivery and audience analysis and adaptation. Speaking projects include platform speeches and oral readings.

COM 598 Faculty Developed Course

This is an experimental course offered by the department as a means of determining its value to the total program or in response to a particular request from a group of students.

COM 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies is required.

EDUCATION & EDUCATIONAL PSYCHOLOGY

ED 500 Contemporary Educational Issues

3 SH

This course focuses attention upon significant contemporary developments in the American and world communities. Philosophies and functions of educational institutions in our current society may be examined. Students should take this course within the first nine semester hours of study. Due to the nature of the content of this course, students who do not complete their M.S. degree within five years may be required to retake this course before graduation.

ED 501 Introduction to Educational Research

3 SH

This course is designed to introduce students to qualitative and quantitative research methodologies that are useful in educational settings. *Prerequisite:* A total of 18 graduate semester hours, including ED 500, and specific department requirements or acceptance into the Master of Arts in Teaching program.

- ED 502 Secondary Student Teaching (Grades 6-12) for the M.A.T. Program** 6 SH
 Designed to support candidates in the Master of Arts in Teaching program, this course provides experience in planning, conducting instructional activities, and assessment of student performance in a secondary school under the guidance of a trained cooperating teacher. Full-time for one semester. Includes a weekly seminar. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych. Students are urged not to be employed during the student teaching program.
- ED 503 Educational Psychology** 3 SH
 This course provides a constructivist approach to child growth and human development, specifically focusing on the ways that concepts and principles from research and theory may be applied in the classroom. Learning will be viewed through a developmental approach. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych. Students are urged not to be employed during the student teaching program.
- ED 514 Teaching Reading in the Content Areas** 3 SH
 This course is designed to help teachers better understand the relationships between content and process by focusing on the skills that children need to comprehend content in various curriculum areas and teaching strategies.
- ED 515 Curriculum of the Elementary School** 3 SH
 This course considers the nature and scope of elementary school experiences: selecting and organizing planning and guiding experiences, the role of subject matter and curriculum materials. The course also considers the basis for evaluating individual learning.
- ED 517 Developmental Reading in the Elementary School** 3 SH
 Designed as a basic course in the instruction of reading in the elementary school, this course offers a comprehensive study of the reading process and the theoretical and practical aspects of a developmental program.
- ED 519 Improving Thinking Skills** 3 SH
 This course is designed to examine the nature of the thinking process and to help teachers improve their students' ability to think. Focus is on the utilization of a taxonomy of thinking skills which facilitates the thinking process.
- ED 525 Teaching Children with Learning Disabilities** 3 SH
 The focus of this course will be on the study of problems of children who have discrepancies between ability and achievement. Types of learning disabilities and their etiology, including physiological aspects, will be explored. Study of the disabilities of perception, cognition and communication as they pertain to intellectual development and classroom performance will be approached through research, case studies and field experience. Interdisciplinary resources will be used.
- ED 527 Individualizing Instruction** 3 SH
 A workshop approach to planning and implementing curriculum change. Based on a study of curriculum objectives and the nature of the learner, teachers will design and create materials and techniques for instruction. Methods for formal and informal evaluation of the learner will be included.
- ED 530 Curriculum of the Secondary School** 3 SH
 This course encompasses a study of the changes, developments and responsibilities of the secondary school curriculum. The problems and needs of youth are examined and serve as a basis of study for the secondary school program.
- ED 532 Computer Literacy in Education** 3 SH
 This course, developed for educators, provides information about the use of computers in education and addresses issues pertinent to computer curriculum development, integration, implementation and evaluation.
- ED 535 Developmental Reading in the Secondary School** 3 SH
 This basic course emphasizes the role of reading and the application of reading and study skills in the various subject areas of the secondary school.
- ED 538 Electronic Portfolio Development for Educators** 3 SH
 This instructional technology course will assist K-16 educators to construct personal, dynamic, standards-based electronic portfolios that include text, audio, graphics, photos, internet links and state-of-the-art hypermedia. Basic computer competency and internet skills required.
- ED 539 Developing Cultural Diversity Through Virtual Field Trips** 3 SH
 This course prepares educators to use internet-based virtual field trips (VFT) to develop an appreciation for cultural diversity, stimulate K-12 student learning and increase academic achievement. A variety of VFT are designed to involve educators in constructivist teaching, intercultural communications and the emerging global culture. *Prerequisite:* Basic computer literacy and internet skills.

- ED 545 Teaching Children With Emotional & Behavioral Disturbances** 3 SH
 This course introduces the characteristics and needs of children with serious emotional disturbances (SED) and other behavioral challenges. It includes a survey of historical perspectives, trends and issues, theoretical viewpoints, diagnostic and prescriptive assessment practices and intervention approaches. Emphasis will be placed on the manner in which SED affects social, psychological and academic growth in children and adolescents. In addition, approximately half the course will be spent discussing instructional strategies to address student's individual needs with an emphasis on inclusionary practices.
- ED 548 Analysis of Reading Difficulties** 3 SH
 This course focuses on the study of both the word-centered and comprehension-centered methods of analyzing strengths and needs in reading, along with an examination of data related to problems in reading. Emphasis is on 1) understanding the rationale and procedures for using selected individual diagnostic instruments; 2) administering a variety of such instruments; 3) interpreting the results; and 4) reporting diagnostic information to parents and to other professionals. *Prerequisite:* ED 517 or ED 535.
- ED 556 Curriculum Development Using the Internet** 3 SH
 This course allows educators to learn aspects of the Internet information highway, i.e.: researching historical documents, engaging in teacher-to-teacher dialogue, investigating scientific discoveries, joining education debates and uncovering an unlimited amount of available resources for the K-12 educator. Prior computer skills are not necessary. *Prerequisite:* Word processing competency.
- ED 557 Computers in Special Education** 3 SH
 This course will examine recent technological advances in technology to evaluate and help exceptional students realize their full potential. Technological advances will enable the design of learning and living environments that substantially reduce functional limitations resulting from sensory and physical disabilities. *Prerequisite:* Three semester hours in special education and Word processing competency.
- ED 558 Computers in Distance Learning** 3 SH
 In this course, students will develop proficiency in distance learning skills and electronic interaction. Mixed media tools will be used to improve subject matter expertise, instructional design, teaching strategies, media usage, tutoring and counseling. *Prerequisite:* Word processing competency.
- ED 559 Educational Computer Simulations** 3 SH
 In this course, teachers learn how to use PK-12 educational computer simulations to refine basic learning skills and master content areas. Demonstrations and evaluations of interactive software and digital hypermedia simulations will be included. Participants will use computers during each class. *Prerequisite:* Minimal computer skills and knowledge of the internet are required.
- ED/BIO 561 Teaching Science in the Elementary School: Content and Pedagogy** 3 SH
 This course provides scientific content and pedagogical applications in the disciplines of biology, earth science, chemistry and physics at the elementary level. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych. or science department.
- ED/BIO 566 Teaching Science in Secondary Schools** 3 SH
 This course is designed to foster confidence in teaching secondary science to middle or high school teachers (6-12). The course will focus on the nature of science; instructional strategies; fostering development of science concepts; mastering of process skills, organization and assessment; and growth of positive attitudes in the areas of science. *Prerequisite:* Admission to the Master of Arts in Teaching Program or permission of the chair of the Dept. of Ed. & Ed. Psych. or (non-M.A.T.) admission to the Professional Secondary Education Teacher Preparation Program. *Corequisite:* Registration in secondary education professional semester courses.
- ED/SPA 567 Applied Linguistics in Spanish** 3 SH
 This course provides a specific analysis of complex grammar structures and their relationship to learning and teaching Spanish as a second language, also Spanish for heritage speakers. It highlights specific problem areas for students and involves the practical application of theories to classroom learning and teaching. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission from chairs of the Dept. of Ed. & Ed. Psych. and Dept. of World Languages and Literature.
- ED/SPA 568 Teaching Spanish in Secondary Schools: Content and Pedagogy** 3 SH
 This course provides candidates in the Master of Arts in Teaching program with an understanding of the methods and materials needed to become a competent teacher of Spanish at the secondary level. Emphasis is on making content knowledge accessible to diverse student populations. Candidates are introduced to assessment methods and learn to integrate current instructional technologies into their teaching. They develop lesson plans and units of instruction and practice delivering instruction. The course will include an examination of the current curricular reform movements and their impact on the teaching of Spanish in the secondary

school. Implications of state and national standards are considered. This course will be taught by a member of the world languages and literature department. Candidates must receive a grade of “B” or higher in order to enroll in student teaching. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission from chairs of Dept. of Ed. & Ed. Psych. and Dept. of World Languages and Literature.

ED 569 Teaching the English Language Arts in the Elementary School: 3 SH

Content and Pedagogy

This content-based literacy course prepares teachers to integrate the skills of reading, writing, speaking, listening, viewing and technology into the English curriculum at the elementary level. In addition to gaining process-based literacy competencies in the area of English, teachers will be required to demonstrate proficiency in the diagnosis of student learning problems, differentiated instruction, and development of application projects, final assessment and reflection. The course will include utilization of literature appropriate for use in the K-6 curriculum. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych.

ED 572 Career Education and Development 3 SH

This course provides an exploration, investigation and experience in methods, models and resources for developing and maintaining career planning and vocational guidance services in public and private educational agencies. Investigation in major theories in education and career development. This course is offered online in the spring only.

ED 578 Teaching the Gifted and Talented 3 SH

Students in this course will research and explore areas of human talent. Related issues and problems of the gifted will be investigated along with strategies for working with the gifted. Students will also develop an understanding of formal and informal assessment and evaluation techniques.

ED 585 Introduction to Community and School Counseling 3 SH

This course offers an introductory professional socialization to the field of counseling. The course provides a survey of the history, philosophy, theoretical foundations, standards, work settings, and relationships between counseling and other helping professions. In addition, the course will introduce the student to timely counseling topics such as: ethics, assessment, consultation, prevention and accountability as well as the challenges facing counseling in the 1990s, such as family, feminist, multicultural and developmental perspectives.

Prerequisite: Admission to counselor education program or permission of chair of Dept. of Ed. & Ed. Psych.

ED 586 Theories of Counseling 3 SH

This course examines a variety of counseling theories, their philosophical assumptions, hypotheses, the therapeutic process inherent in each and the expected outcomes of successful counseling. *Prerequisite:* Admission to counselor education program or permission of chair of the Dept. of Ed. & Ed. Psych.

ED 587 Counseling Diverse Populations 3 SH

This course will critically analyze data and propose concepts of cross-cultural counseling appropriate to most culturally diverse groups in the United States. Case studies will be utilized. *Prerequisite:* ED 585 and ED 586.

ED 588 Elementary Student Teaching (Grades K-6) for the M.A.T. Program 6 SH

This course is designed to support candidates in the Master of Arts in Teaching Program and provides experience in planning, conducting instructional activities and assessment of student performance in an elementary school under the guidance of a trained cooperating teacher. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych. Full-time for one semester. Includes a weekly seminar.

ED 589 Teaching Social Studies in the Elementary School: Content and Pedagogy 3 SH

This course provides an interdisciplinary approach to social studies that will link history, geography, economics and civic education through the use of instructional technology. *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych.

ED 591 Independent Thesis Research in Education 6 SH

This course is designed for students fulfilling the thesis requirements for the M.S. in Education degree, who have submitted an acceptable thesis outline and choose to work independently on thesis research and writing. Individual conferences with the thesis adviser are scheduled as needed. Credit will be granted upon submission of one copy of an approved final draft of the thesis and thesis abstract. *Prerequisite:* ED 501.

ED 592 Capstone Project in Education 3 SH

This course requires students to complete an instructor-approved professional practices capstone project in a PK-12 educational setting. *Prerequisite:* Completion of ED 501. Grading: pass/fail.

ED 593 Standards, Mandates and Legal Issues in Teaching 3 SH

This course explores Connecticut State Department of Education documents relevant to the education of sec-

ondary education educators and identifies standards appropriate to their identified Special Program Alignment. Teacher candidates will prepare for the Beginning Educator Support and Training program assessment standards and will have opportunities to discuss the student teaching experiences and observed “best practices.” *Prerequisite:* Admission to the Master of Arts in Teaching program or permission of the chair of the Dept. of Ed. & Ed. Psych.

ED 594 Community Reading Practicum

3 SH

This course focuses on practical applications of teaching reading in diverse educational environments. Placements will be based on teaching experience, professional goals and community needs. *Prerequisite:* Completion of 15 semester hours in the M.S. in Education (reading option), including ED 514, ED 517 or ED 535 and ED 548.

ED 598 Faculty Developed Course

This experimental course is offered by the Dept. of Ed. & Ed. Psych. as a means of determining its value to the total program or in response to a particular request from a group of students.

ED 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once. *Prerequisite:* Written permission of the faculty sponsor and chair of the Dept. of Ed. & Ed. Psych. Registration through the Division of Graduate Studies is required.

ED 690 Non-Thesis Project for Second M.S. Degree

6 SH

A student-designed culminating project for the non-thesis approach when working towards a second M.S. degree. The topic and topical outline must be approved by both the appropriate program coordinator and the dean of graduate studies.

ED 726 Child and Adolescent Development

3 SH

The focus of this seminar course will be on child and adolescent development through the analysis of case studies. In addition to analyzing case studies, the student will develop a case study.

ED 733 Staff Development Seminar

1-6 SH

This course is designed to meet the in-service (staff development) needs of specific school personnel of local school systems. The objectives of the course will be jointly developed by the Dept. of Ed. & Ed. Psych. and the local school system(s).

DOCTOR OF EDUCATION IN INSTRUCTIONAL LEADERSHIP: CORE COURSES IN THEORY AND FOUNDATION

ED 800 Foundations of Instructional Leadership

3 SH

This course will prepare classroom practitioners to identify and apply ethical and professional constructs of leadership to affect change. Topics include the history, philosophy and social psychology of instructional leadership and educational reform. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 801 Group Leadership, Group Processes, and Team Building in Education

3 SH

This course will introduce students to the theories and practices of group leadership, skill development, group process and the enhancement of cooperative academic learning climates. Students will acquire knowledge about the principles of effective team building, faculty teamwork, conflict mediation, cooperative learning and collaboration based upon theories of group process dynamics. Emphasis will be placed on the development of leadership skills to enhance social, psychological, cultural, organizational and emotional influences on the development of the group and promote interpersonal learning in order to achieve educational goals and objectives. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 802 Emerging Instructional Technologies

3 SH

Teachers will identify, analyze and project the roles of emerging technologies and related achievements to school reform and improvement. This course will enable classroom practitioners to plan for the integration of emerging technologies in instruction, research and assessment. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 803 National Standards, Current Practices, and Policies in Education (Summer Institute)

3 SH

This course will be conducted as a summer institute. A variety of local and state experts in education will provide students with contemporary information about state and national policies and standards as well as theory and research related to best educational practices. This course will make extensive use of online Internet access to national, regional and state organizations and agencies involved in standards-based reform. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 804 Learning, Cognition, and Teaching**3 SH**

Using many original sources, this course represents a detailed consideration of human growth and development in the principle schools of psychology and related social sciences. Participants will investigate the application of these concepts to educational settings. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 805 Research and Evaluation in Education**3 SH**

The purpose of this course is to introduce theories and models of evaluation as applied to educational programs and administrative systems. The course will provide graduate students with the necessary skills to conceptualize an evaluation design, select appropriate techniques and conduct an evaluation within the infrastructure of an educational institution. This course will assist the learner in understanding administrative educational systems and methodically assessing an aspect of a particular system. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 860, ED 861 and ED 865.

**DOCTOR OF EDUCATION IN INSTRUCTIONAL LEADERSHIP:
AREAS OF SPECIALIZATION****ED 660 Internship and Seminar in Educational Leadership:****Theory, Research and Practice I****3 SH**

This is part I of a supervised administrative internship and accompanying seminar in an organizational setting where interns apply strategic, instructional, organizational and contextual leadership skills. Students initiate an action plan and professional portfolio. In addition to the seminar requirements, each candidate will be working on-site with an administrative mentor under the supervision of a member of CCSU's/WestConn's faculty, who will be the university supervisor. The internship, parts I and II, will extend over two semesters. All candidates are required to log a requisite number of hours each semester as specified by the Educational Leadership Constituent Council and are required to complete school-based activities, as well as district-based activities. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership Program and the Certificate for Intermediate Administration or Supervision Program (Endorsement #092).

ED 665 Internship and Seminar in Educational Leadership:**Theory, Research and Practice II****3 SH**

This is part II of a supervised administrative internship and accompanying seminar in an organizational setting where interns apply strategic, instructional, organizational and contextual leadership skills. Students initiate an action plan and professional portfolio. In addition to the seminar requirements, each candidate will be working on-site with an administrative mentor under the supervision of a member of CCSU's/WestConn's faculty, who will be the university supervisor. The internship, parts I and II, will extend over two semesters. All candidates are required to log a requisite number of hours each semester as specified by the ELCC and are required to complete school-based activities as well as district-based activities. *Prerequisites:* Acceptance into the Doctor of Education in Instructional Leadership Program, the Certificate for Intermediate Administration or Supervision Program (Endorsement #092), and completion of ED 660.

ED 820 Topics in Curriculum and Instruction**3 SH**

This course deals with current developments in scientific research, public policy and/or educational practice related to curriculum, instruction, assessment and leadership within schools. It is designed to keep students abreast of developments that affect or have the potential to affect decisions about curriculum design, choice of instructional strategies and program implementation. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 821 Leadership Assessment and Development**3 SH**

This course is designed to help students examine and develop competencies that characterize successful leaders in education and related professions. Students will analyze theories underlying the assessment of leadership abilities and examine the structure of the construct of leadership. They will also engage in self-assessment, creating a leadership plan that outlines long-term and short-term goals for the development of leadership competencies. Students will be able to update their progress through revision and periodic review of this leadership plan. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program and ED 800.

ED 822: Talent Development Across the Curriculum**3 SH**

This course investigates the value of multiple intelligences and other cognitive-developmental theories. Students will modify or design integrated curriculum for the classroom. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 823 Models of Creative Thinking**3 SH**

Problem-solving and creative thinking issues are demonstrated, critiqued and discussed. Strategies will pertain to all curricular areas. Participants will reflect on their own cognitive processes. Connections will be made to

national standards in education. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 824 Diversity Issues in Schools

3 SH

This course will assist educators to develop a pluralistic and global perspective about the equitable education of diverse students. Participants will investigate the philosophical, social and historical foundations of multicultural education, while developing leadership skills that promote social harmony, cultural integration and student achievement. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program.

ED 826 Quantitative and Qualitative Applications of Educational Research

3 SH

The purpose of this course is to extend students' research skills to examine and apply the knowledge found in professional journals and other sources. These skills will be enhanced in the context of both quantitative and qualitative paradigms. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 860, ED 861 and ED 865.

**DOCTOR OF EDUCATION IN INSTRUCTIONAL LEADERSHIP:
INQUIRY STRATEGIES & DISSERTATION SEQUENCE**

ED 860 Quantitative Methods Applied to Educational Research

3 SH

This course provides the basis for understanding, applying and interpreting univariate statistics and multiple correlations in educational settings. The student will relate specific quantitative research questions and hypotheses to appropriate statistical procedures as well as analyze each procedure using appropriate software. Students will use data sets that apply directly to educational research. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; EPY 505 or equivalent course.

ED 861 Qualitative Methods Applied to Educational Research

3 SH

This course conveys the history and characteristics of qualitative methodology used in educational settings. A theoretical and practical examination of qualitative methods will include the use of action research as students gain experience in employing qualitative techniques and analyses. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; EPY 505 or equivalent course.

ED 865 Introduction to Educational Research Designs

3 SH

This course conveys the orientation and strategies needed to employ both quantitative and qualitative methodologies of research and investigation in the field of education. Topics include an examination of significant designs, their relations to specific types of research questions, hypotheses, descriptions of subjects, data collection procedures and analyses. Limitations to each design will also be thoroughly examined. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 860 and ED 861.

ED 881 Dissertation Seminar 1

3 SH

Students will be guided through the research process as they complete their dissertation proposals, begin the literature review for their investigations and describe the methodologies necessary for their projects. In this seminar approach, students will work with their dissertation advisers both individually and in small groups. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 860, ED 861 and ED 865; satisfactory completion of comprehensive exams.

ED 882 Dissertation Seminar 2

3 SH

Students will defend their proposals and make the necessary arrangements to begin their investigations by completing the review of the literature, obtaining consent from subjects and beginning the data collection process. Students will work with their dissertation advisers both individually and in small groups. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 805, ED 860, ED 861, ED 865 and ED 881; satisfactory completion of comprehensive exams.

ED 883 Dissertation Seminar 3

3 SH

Dissertation data collection and writing will commence. Students will work with their dissertation advisers both individually and in small groups. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 805, ED 860, ED 861, ED 865, ED 881 and ED 882; satisfactory completion of comprehensive exams.

ED 884 Dissertation Seminar 4

3 SH

Dissertation research will be completed and thesis writing will continue. Students will work with their dissertation advisers both individually and in small groups. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 805, ED 860, ED 861, ED 865, ED 881, ED 882 and ED 883; satisfactory completion of comprehensive exams.

ED 885 Dissertation Seminar 5

3 SH

Students will complete their research and writing. They will also prepare to defend their investigations. Students will work with their dissertation advisers both individually and in small groups. Candidates will also

prepare future presentations and publications. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership program; ED 804, ED 805, ED 860, ED 861, ED 865, ED 881, ED 882, ED 883 and ED 884; satisfactory completion of comprehensive exams.

ED 886 Continuing Research 0-6 SH
Course description varies with the needs of the students. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership Program. Written permission of the primary adviser and program coordinator. Registration through the Office of Graduate Studies is required.

ED898 Faculty Developed Study 1-6 SH
Course description varies with the needs of the program and/or its students. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership Program.

ED899 Student Independent Study 1-6 SH
Course description varies with the needs of the program and/or its students. *Prerequisite:* Acceptance into the Doctor of Education in Instructional Leadership Program. Written permission of the faculty sponsor and program coordinator. Registration through the Office of Graduate Studies is required.

EDUCATIONAL PSYCHOLOGY

EPY 505 Measurement and Evaluation 3 SH
This basic course in educational measurement includes consideration of such measures as reliability, validity, norms and an overview of techniques of appraising aptitude, achievement and personality. Attention is given to the selection and use of standardized tests. *Prerequisite:* PSY 100 or its equivalent.

EPY 509 Educational Problems of Exceptional Children 3 SH
This course helps teachers understand exceptional students and their educational issues by focusing on managing these problems in the regular classroom. Includes methodologies for differentiating instruction for exceptional students including special education and talented and gifted. *Prerequisite:* Admission to the Master of Arts in Teaching Program or permission of the chair of the Dept. of Ed. & Ed. Psych.

EPY 600 Assessment for Counselors 3 SH
This course focuses on the development, administration, scoring and interpretation of assessment measure. Emphasis is on commercial tests and inventories widely used in public schools, private industry and clinical settings and issues of cultural bias in testing. *Prerequisite:* ED 585, ED 586 and admission to the counselor education program.

EPY 601 Fundamentals of Statistics and Research Design 3 SH
Emphasis is placed on three related aspects of research: 1) theoretical and practical consideration of experimental and non-experimental research designs, hypothesis testing, sampling methods and observation and measurement principles; 2) practical aspects of research implementation in applied and/or laboratory settings; and 3) statistical treatment of data. Research studies are analyzed and interpreted with regard to these criteria. *Prerequisite:* EPY 604 and EPY 605

EPY 602 Interviewing and Consultation Across the Life Span: Principles and Techniques 3 SH
This course covers theories, principles and techniques of counseling and consultation with emphasis on application of social, emotional, educational and vocational adjustment of individuals in a diverse society. *Prerequisite:* ED 585 and ED 586 and admission to the counselor education program.

EPY 603 Group Work Foundation: Theory and Practice 3 SH
This laboratory course allows students to explore and experience the dynamics of interpersonal relationships. Students will analyze their group interactions and enhance their knowledge of development in diverse groups. *Prerequisite:* EPY 602.

EPY 604 Individual Counseling in the Schools: Clinical Skills 3 SH
This course offers class and laboratory experience with primary emphasis on developmental counseling techniques using case studies, role-playing, and discussion and practice-interviewing as basic learning vehicles to enhance communication. Emphasis will be on developmental counseling in a diverse society. Pre-practicum preparation will begin. *Prerequisite:* EPY 602.

EPY 605 Clinical Mental Health Counseling Skills 3 SH
This course will provide Clinical Mental Health Counseling (CMHC) students with experiential training focused on individual counseling and consultation for application in clinical mental health and agency settings. Primary emphasis will be on development of individual counseling skills relating to assessment, intervention and termination with case studies, role playing and supervision. Counselor, consultant and client characteristics and behaviors, which influence the helping process — including, age, gender, ethnic and cul-

tural differences — will be considered in counseling applications. Students who are preparing to work as clinical mental health counselors will demonstrate the professional knowledge, skills, and practices necessary to address a wide variety of circumstances within the clinical mental health counseling context. This course is designed to meet The Council for the Accreditation of Counseling and Education Related Program, 2009 CACREP standards for professional practice. *Prerequisite:* Admittance into the Counselor Education Program – Option in CMHC, or completion of EPY 602 or permission of the chair of the Dept. of Ed. & Ed. Psych.

EPY 606 Advanced Group Work: Theory and Practice

3 SH

An advanced self-placement experience where students facilitate small groups (45 clock-hours for counseling specialization and 30 for psychoeducational specialization), this course is designed to move the student closer to a professional level of competence as a leader/facilitator in a developmental context with knowledge of group processes in a diverse society. Pre-practicum preparations are finalized. *Prerequisite:* EPY 603.

EPY 607 Pupil Personnel Services: Philosophy and Organization

3 SH

This course will investigate the organizational patterns and relationships of pupil services to the total school program and the community. Emphasis will be on the role of the counselor in developmental guidance within the pupil personnel organizational structure. Focus will be on the school counselor as coordinator, consultant, manager, teacher, and counselor to facilitate the personal, social career and academic development of all students. *Prerequisite:* Admittance to the counselor education program or field experience. This course is offered online only in the fall.

EPY 608 Clinical Mental Health Counseling: Management, Delivery & Consultation

3 SH

This course is designed to provide Clinical Mental Health Counseling (CMHC) students with an advanced understanding of how human service CMHC programs are organized, as well as the role and function of CMHC in human service and CMHC agencies. Particular emphasis will be given to a specific understanding of program development, delivery of services and consultation to meet the needs of our changing society. Students who are preparing to work as clinical mental health counselors will demonstrate the professional knowledge, skills, and practices necessary to address a wide variety of circumstances within CMHC settings. This course is designed to meet The Council for the Accreditation of Counseling and Education Related Program, 2009 CACREP standards for professional practice. *Prerequisite:* Admittance into the Counselor Education Program - Option in CMHC or permission of the chair of the Dept. of Ed. & Ed. Psych.

EPY 610 Practicum in School Counseling

3 SH

This course requires students to complete a minimum of 100 hours of supervised practicum experiences in a school setting. This practicum provides for the development of individual counseling and group work skills in a diverse society. Selection of the site must be approved by the faculty supervisor. Students will meet weekly, both in groups and individually with peer supervision and with their faculty supervisors, to discuss their common purposes, varying problems and methods of approach. *Prerequisite:* Completion of all core counseling courses.

EPY 611 Practicum in Clinical Mental Health Counseling

3 SH

This course requires students to complete a minimum of 100 hours of supervised practicum experience. This practicum provides for the development of individual counseling and group work skills. Selection of site must be approved by the department supervisor. Students will meet weekly with their supervisors to discuss their common purposes, varying problems and methods of approach. This practicum in Clinical Mental Health Counseling (CMHC) is designed to meet The Council for the Accreditation of Counseling and Education Related Program, 2009 CACREP standards for professional practice. *Prerequisite:* Students must have successfully completed the following courses: EPY 618, ED 586, EPY 600, EPY 602, ED 587, EPY 605, EPY 630, or permission of the chair of the Dept. of Ed. & Ed. Psych.

EPY 612/613 Internship in School Counseling

6 SH

Student must complete a 600-hour supervised counseling internship in a school setting. This internship is a two semester full-time commitment for those students who do not hold a Connecticut professional educator certificate, but hold, or are eligible for an initial educator certificate and wish to be certified as school counselors. Includes weekly seminars on campus for purposes of peer supervision and three site visits for non-teaching semester. All others may complete the internship in one or two semesters. *Prerequisite:* Completion of EPY 610.

EPY 614/615 Internship in Clinical Mental Health Counseling

6 SH

Following the successful completion of the practicum in Clinical Mental Health Counseling (CMHC), students must complete a counseling internship in a CMHC setting. This internship will be completed in a minimum of one academic semester, two semesters or until student completes required direct and indirect client contact hours required. This CMHC internship is designed to meet The Council for the Accreditation of Counseling and Education Related Program, 2009 CACREP standards for professional practice. *Prerequisite:* Students must have successfully completed their practicum in CMHC or permission of the chair of the Dept. of Ed. & Ed. Psych.

- EPY 618 Introduction to Clinical Mental Health Counseling** 3 SH
 This introductory course is designed to prepare students to understand the knowledge, skills and competencies required of clinical mental health counselors, as defined within the The Council for the Accreditation of Counseling and Education Related Program, 2009 CACREP standards for professional practice. *Prerequisite:* Admittance into the counselor education program - Option in CMHC or permission of the chair of the Dept. of Ed. & Ed. Psych.
- EPY 619 Crisis Counseling in the Community and School** 3 SH
 This course is designed to prepare students with the knowledge, skills and competencies to understand the impact of crises, disasters and other trauma-causing events, also to demonstrate the ability to use procedures for assessing and managing suicide risk. *Prerequisite:* Admittance into the Counselor Education Program – School Counseling or CMHC Options, completion of EPY 640/EPY 605 or permission of the chair of the Dept. of Ed. & Ed. Psych.
- EPY 620 Marriage and Family Counseling** 3 SH
 This course examines the historical antecedents, stages of family development, philosophical assumption and major approaches to marriage and family counseling. Ethical issues and current alternative techniques will be investigated. *Prerequisite:* Nine semester hours in psychology.
- EPY 621 Drug and Alcohol Counseling** 3 SH
 This course provides students with empirical information and counseling procedures regarding substance abuse. The course will focus on readings on substance abuse, investigation of theoretical treatment models, classroom simulation of such models and contact with drug and alcohol programs. *Prerequisite:* Nine semester hours in psychology.
- EPY 624 Legal and Ethical Issues in Public Schools** 3 SH
 This course will review the legal and ethical issues, conflicts and demands currently placed on teachers, counselors and other working professionals and consultants in public schools. Case presentation, lectures, activities, guest speakers and Supreme Court decisions will be used to review school violence, school district liability, counselor liability, confidentiality, religion, freedom of expression, special education and working with family issues. This course also will review legal and ethical issues within a wide range of development (pre-school to age 21) for both typical and special needs students. Special attention regarding the legal requirements of the Individuals with Disabilities Education Act will be given to the transition of special-needs students after high school graduation.
- EPY 625 School-Based Family Counseling** 3 SH
 The course will present major theoretical approaches to family counseling and their application to the school setting. Emphasis will be placed on family systems theory and structural family therapy as developed by Salvador Minuchin. The processes and steps required to create a paradigm shift in approaching student problems in their academic, social and emotional development will be presented through the application of school-based family counseling and collaborative approaches. School and community counselors will develop the knowledge and skills necessary to work effectively with teachers, administrators, specialists, community agencies and medical facilities in developing ecological assessments and interventions within the home-school-community environment.
- EPY 626 Sexuality Counseling with Children and Families** 3 SH
 This course will provide school and community counselors with the knowledge, skills, techniques and competence to assess and address the sexuality/gender concerns affecting their clients. Topics include childhood sexual development; dynamics of abuse, victimization, and perpetration; gender/sexual identity issues; sexual abuse prevention and sexual education programs; couples counseling and sexual dysfunction.
- EPY 627 Consultation Theory and Practice** 3 SH
 This course is designed to provide school counselors and mental health workers with knowledge about theoretical approaches to consultation and help them develop skills necessary for consultation, particularly within educational organizations.
- EPY 628 Working with Grieving Families and Children in Schools** 3 SH
 This course is designed for teachers, school counselors and mental health professionals. The course will provide participants with a working knowledge of the grieving process for families and children from a developmental perspective. The cognitive theories of Jean Piaget and David Elkind and the psychosocial theory of Erik Erikson will be applied to the grief stages as developed by Elisabeth Kubler-Ross. Teachers and counselors will acquire the knowledge and skills needed for working with students and families who have experienced a loss in their family.
- EPY 630 Introduction to Psychopathology** 3 SH
 This course introduces students to basic issues related to diagnosis and treatment of psychopathology frequently encountered in clinical practice in schools and community agencies. The behavioral, cognitive and

affective consequences of major mental disorders will be explored with the goal of developing effective counseling interventions and treatment plans. Emphasis will be on use of the DSM-IV diagnostic criteria.
Prerequisite: M.S. in Counseling, enrollment in the counselor education program or permission of the instructor.

ENGLISH

- ENG 502 Critical Theory** 3 SH
This course is an in-depth examination of major schools of contemporary critical theory, from Structuralism to Post-Colonialism. The goal of the course is to provide students a varied repertoire of current approaches to texts and to facilitate their understanding of the ideological stances inherent in each scholarly perspective. Students are encouraged to examine the strengths and weaknesses of each approach and to develop their own critical scholarly voice by applying aspects of theories to their own readings of texts.
- ENG 506 Studies in the History of the Language and Linguistics** 3 SH
The course explores the origins and development of the English language as well as present-day English dialects. Students examine the phonology, morphology and grammar of Old English, Middle English, and Modern English as reflected in appropriate samples of the language. In addition, students will apply the main systems of grammatical and linguistic analysis to the English language and investigate current linguistic issues.
- ENG 509 Medieval Literature (post-colon)** 3 SH
This course will be an intensive, in-depth study of medieval literary topics and authors, including Chaucer. This literature will be examined in the context of its historical, cultural, philosophic and literary setting, specifically, in the ways in which linguistics and rhetorical traditions have shaped individual authors and works and how scholars and literary critics have sought to explain this body of literature. This course may be repeated for credit provided the post-colon subject is different.
- ENG 513 English Renaissance Literature — (post-colon)** 3 SH
This course will focus on major writers of the English Renaissance, usually emphasizing either the poetry or prose of writers such as Sidney, Bacon, Spenser, Donne and Browne, and/or the drama of writers such as Marlowe, Jonson, Webster, Chapman and Middleton. This course may be repeated for credit provided the post-colon subject is verifiably different.
- ENG 515 TESOL Testing and Assessment** 3 SH
This course is intended to provide a comprehensive foundation in teaching English as a second language (TESOL) testing and assessment. Contact the Division of Graduate Studies for admissions requirements.
- ENG 516 TESOL Methodology** 3 SH
This course will introduce students to the various methods of teaching English as a second language (TESOL) practiced during this century. Students will learn about the theoretical foundations upon which several teaching methods are based, the strengths and weaknesses of these methods and current issues and research in this field. Focus will be on lesson plans and teaching methods. Students must have a background in English literature, linguistics or extended foreign language study. Exceptions may be made with the consent of the instructor. Contact the Division of Graduate Studies for admissions requirements.
- ENG 517 Grammars of English** 3 SH
This course will introduce students to the various grammars of English. Students will learn about the theoretical foundations upon which several grammars are based and the strengths and weaknesses of each. The course will illustrate how to integrate grammar into the teaching of writing. The course assumes that students will have background in at least one of the following: linguistics, English literature, the teaching of English. Exceptions may be made with the consent of the instructor.
- ENG 518 Topics in Non-fiction Writing** 3 SH
This course offers workshops in different kinds of non-fiction writing. Topics might include autobiography, advanced exposition, technical writing, journalism (with various sub-headings).
- ENG 519 Topics in Creative Writing** 3 SH
This course offers workshops in different genres of creative writing. The specific genre (poetry, fiction, drama, etc.) and the focus of the course will vary semester to semester.
- ENG 532 Restoration and Eighteenth-Century British Literature (post-colon)** 3 SH
This course offers an intensive and in-depth study of selected authors and/or topics from Restoration and Eighteenth-Century British Literature. This course may be repeated for credit provided the post-colon subject is different.
- ENG 534 Nineteenth Century British Literature (post-colon)** 3 SH
Intensive and in-depth study of selected authors and/or topics from Nineteenth Century British Literature

such as Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, the Brontës, Dickens, George Eliot, Carlyle, Mill, Arnold and Hardy. This course may be repeated for credit provided the post-colon subject is different.

ENG 541 Twentieth Century British and Irish Literature (post-colon) 3 SH

This course offers an intensive examination of prominent authors of ex-colonies, as well as a thorough study of Britain and Ireland's most visionary authors. This course may be repeated for credit provided the post-colon subject is different.

ENG 544 Topics in Literature (post-colon) 3 SH

This course offers a critical study of topics in literature, e.g., satire, gender roles, representation of "Other(s)," which typically cut across periods, genres and cultures. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG 552 American Literature to 1860 (post-colon) 3 SH

This course offers an intensive and in-depth study of selected authors and/or topics from American Literature prior to 1865, such as Puritanism, Transcendentalism, Sentimentalism, Romanticism, Winthrop, Bradstreet, Taylor, Byrd, Edwards, Mather, Franklin, Irving, Fuller, Melville, Hawthorne, Stowe, Emerson, Thoreau, Southworth and Poe. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG 567 American Literature: 1860-1920 (post-colon) 3 SH

This course offers an intensive and in-depth study of the most significant literary movements (realism, naturalism, local color, early modernism, psychological realism, etc.) in appropriate literary, critical and cultural contexts. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG 568 American Literature: 1920-present (post-colon) 3 SH

This course offers an intensive and in-depth study of the most significant literary developments (modernism, agitprop, Harlem Renaissance, Beat, etc.) in appropriate literary, critical and cultural contexts. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG 570 Fiction Studies (post-colon) 3 SH

This course offers an intensive and in-depth study of important works of fiction and fiction writers in pertinent literary, critical, and cultural contexts. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG 572 Drama Studies (post-colon) 3 SH

This course offers an intensive and in-depth study of important plays and playwrights in pertinent literary, critical, and cultural contexts. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG 574 Poetry Studies (post-colon) 3 SH

This course offers an intensive, in-depth study of significant poet(s), movements, or genre of poetry in relationship to their literary, critical and cultural contexts. This course may be repeated for credit provided the post-colon subject is verifiably different.

ENG/WRT 585 An Apprenticeship in Teaching College Writing 1-3 SH

Restricted to graduate students in English, this course focuses on the theory and practice of teaching freshman composition. Students will be responsible for attending seminars in rhetorical theory with a workshop component in the practicalities of teaching composition, conducting writing and discussion sessions with students in freshman composition, and commenting on and evaluating essays. Written assignments based on the reading for the course will be required. This variable credit course may be taken for up to three credits.

ENG/WRT 586 Practicum in Teaching College Writing 1-3 SH

Restricted to graduate assistants in English, this course is a workshop for discussion of problems encountered in teaching freshman composition. This course may be taken for up to three credits per semester as long as the student is a graduate assistant. *Prerequisite:* ENG/WRT 585. Students may take a total of three credits in ENG/WRT 586, or a combination of three credits from the two courses (ENG/WRT 585 and ENG/WRT 586).

ENG 592 Independent Thesis Research in English 3-6 SH

Designed for students fulfilling the thesis requirements for the Master of Arts in English. Students must follow the thesis guidelines and work independently on thesis research and writing. Individual conferences with the thesis adviser are scheduled as needed. Credit will be granted upon submission of the approved final draft of the thesis and thesis abstract. Permission of both the thesis adviser and the graduate coordinator.

ENG 598 Faculty Developed Course

This experimental course is offered by the English department as a means of determining its value to the total department program or in response to a particular request from a group of students.

ENG 599 Student Independent Study

1-3 SH

This vehicle is designed to provide the student with an opportunity to develop his or her own learning experience that lies outside the existing graduate course offerings of the English department. The student will design a project and secure a faculty sponsor who has the pertinent expertise. May be taken for a maximum of three credits toward the degree. *Prerequisite:* Written permission of the faculty sponsor and the English department. Registration through the Division of Graduate Studies is required.

FINANCE

FIN 502 Economic Analysis for Managers

3 SH

This course will examine the concepts of economic theory and methods in the context of business decision-making. Mathematical and analytical tools will be used to study the behavior of economic agents such as consumers, investors and the firm. Both theory and applications are presented. The tools of economic analysis that are examined include supply and demand analysis, consumer theory, the theory of the firm and production, market structure analysis, pricing strategies, risk management, government economic and regulatory policy, and international trade and commerce. The course links traditional economic analysis with decision sciences to develop the essential tools required to make effective management decisions, and for the firm to develop an appropriate competitive market strategy. *Prerequisite:* FIN 545.

FIN 505 Managerial Finance

3 SH

This course examines the concepts and techniques used by financial managers/analysts to maximize the value of the firm. Students will become conversant in a broad range of areas including financial planning and control, working capital management, capital budgeting and introductory portfolio management. *Prerequisite:* FIN 502 or FIN 545.

FIN 510 Quantitative Methods in Public Administration

3 SH

This course examines data analytic and quantitative techniques used in public administration. Explores methods for identifying patterns and structure within and between sets of data. Considers criteria for optimal choice in uncertain and sequential decision-making situations. Analyzes regression and correlation models. Investigates time series analysis and forecasting techniques.

FIN 545 Statistics for Managerial Decision-Making

3 SH

This accelerated course in the use of statistical methods provides managers with the foundation for making consistently effective business decisions. Data analytic techniques are used to diagnose potential managerial problems, as well as to identify entrepreneurial opportunities. Descriptive and inferential statistics, and regression and correlation analysis are explored from a managerial perspective. Statistical software will be used as a basis for data analysis.

FIN 557 International Finance

3 SH

This course offers a study of financing overseas operations, trade, exchange rates, banking, IMF problems, policies and decisions.

FIN 560 Analysis of Financial & Investment Decisions

3 SH

The course focuses on the management of a corporation's financial and security investments. It provides a critical discussion on a number of theoretical issues, empirical observations and their relevance to an understanding of "real world" corporation decisions. The theories will be reinforced by hands-on computer techniques. Students will learn to collect data from various resources, create models to perform quantitative analysis and make sound financial and investment decisions for a corporation. *Prerequisite:* FIN 505.

FIN 561 Investments and Security Analysis

3 SH

This course will acquaint students with the basic characteristics of securities and securities markets. Theories will be introduced and examined which attempt to value both individual securities and aggregate securities markets. These concepts will be integrated into a study of portfolio theory and actual industry practices as they apply to institutional investors. *Prerequisite:* FIN 505.

FIN 565 Business Forecasting for Managers

3 SH

This course provides the student with an understanding of commonly used forecasting models. Topics include moving averages and exponential smoothing, linear and nonlinear regression, classical time-series decomposition, Box-Jenkins models, bootstrapping techniques and methods of combining forecasts. Emphasis is placed on managerial applications and the use of a computer-based forecasting package. *Prerequisite:* FIN 545 or equivalent, or permission of the instructor.

FIN 598 Faculty Developed Course

This experimental course is offered by the finance department as a means of determining its value to the total department program, or given in response to a particular request from a group of students.

FIN 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies is required.

GRADUATE THESIS ADVISEMENT

GRA 799 Graduate Thesis Advisement

0 SH

This course is required of all graduate students who have completed their required coursework but are still working on a thesis or alternative research project. Students enroll in fall and spring semesters until all degree requirements are completed. Requires permission of the graduate program coordinator.

HEALTH PROMOTION & EXERCISE SCIENCES

HPX 598 Faculty Developed Course

1-4 SH

This is an experimental course offered by the health promotion & exercise sciences department as a means of determining its value to the total department program or in response to a particular request from a group of students.

HPX 599 Student Developed Study

1-6 SH

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies office is required.

HISTORY & NON-WESTERN CULTURES

HIS 505 New York City: Its History and Culture

3 SH

This survey course examines the political history of the city from its foundation. It also offers an examination of selected themes in the context of the social and cultural history of the city. In addition to regular lectures, the course will use the city itself as a classroom. Students will pay for travel costs and participation in tours and cultural events.

HIS 506 Readings in American History to 1877

3 SH

This course will analyze select works from the Colonial era through reconstruction.

HIS 507 Readings in American History Since 1877

3 SH

This course will analyze select works from the Gilded Age to the present.

HIS 510 Fascism: Revolution or Counter Revolution

3 SH

This course examines the revolutionary nature of Fascist movements throughout Europe and their conflict with the forces of liberalism and socialism. Particular stress will be placed on the Italian and German experiences.

HIS 511 The Communist Revolution and the Soviet Union

3 SH

This course offers a study of revolution as a continuing and evolving phenomenon. Included is the Marxist-Leninist ideology at work in the Russian setting, the meaning and characteristics of the Stalinist revolution and the significance of the liberalizing trend after Stalin.

HIS 515 The French Revolution

3 SH

This course offers an anatomy of an unplanned revolution, tracing and assessing the development of the peaceful meeting of the Estates-General into a rampant revolution and its reversion to more traditional forms. The Napoleonic era will be treated as an integral part of the Revolution as it spreads throughout Europe.

HIS 516 The American Revolution

3 SH

An examination of the American Revolution (1775-1783): the course of the War of Independence between the colonists and the British and the simultaneous revolution within American society, affecting, among other things, women, slavery, education and government.

HIS 520 Origins of World War I

3 SH

The origins of the Great War will be examined together with a view of the cataclysmic changes it produced in the European political and social system. The rise of the masses will be linked to the waxing tide of nationalism, the development of mass armies and the concept of total war. Social, economic and psychological factors will be treated in close interrelation with growing diplomatic complications and the gradual inexorable erosion of the long peace in Europe.

- HIS 521 Origins of World War II** 3 SH
This course is an examination of the foreign policies of the European powers in the period after 1918 with particular emphasis on the years immediately preceding the outbreak of hostilities.
- HIS 534 Islam in International Affairs** 3 SH
This course is an examination of the myth and reality of the faith of Islam as a confrontation of the West. Is Islam a threat to the West? Or, is the West a threat to Islam? The global heritage and context of the relationship between Islam and democracy, revolutionary Islam and the world balance of power, and the Middle East in international politics, human rights in the Islamic Middle East, and anti-Muslimism in contemporary politics are emphasized. The varied applications of Islam in the international affairs of selected countries in the Middle East and the Islamic world are used as case studies.
- HIS 536 The Civil War Era** 3 SH
This course offers an examination of the American Civil War, focusing on its causes, its military history, and its social, political and economic effects.
- HIS 537 America in the Sixties** 3 SH
This course offers an analysis of America in the 1960s from Kennedy's election to Watergate, covering the civil rights and peace movements, riots and assassinations (includes causes and effects).
- HIS 541 Conflict in the Modern Middle East** 3 SH
This course offers in-depth analysis of the roots of the major conflicts in the region, emphasizing the roles of nationalism, religion, foreign influences and wars. The course concentrates on the major developments in the region, with special interest paid to the persistent conflicts and problems, such as the Arab/Israeli conflict. One or two conflicts or problems are dealt with as case studies with an in-depth investigation of the historical roots and the influences of both regional and external forces.
- HIS 556 Colonial North America** 3 SH
This course provides students with an opportunity to explore themes of exploration, settlement and development of the North American colonies. It focuses on the interaction among Native Americans, Europeans, and Africans from the first contacts to the beginning of the American Revolution. Themes explored will include: European attempts to assimilate, dominate and exterminate Native Americans and Native American attempts to negotiate within an increasingly constricted world; the importance of African slavery to the development of American culture and economy; women's roles in the colonies; political and economic relationships between the center and periphery; and America's role in the British empire.
- HIS 557 The Early American Republic** 3 SH
This course covers the leading issues in the historical age of George Washington and Thomas Jefferson when the American Republic remained experimental and America's place in the world was uncertain and contested. Subjects that will be considered are the Marshall Court, the War of 1812, US-Muslim relations, Hamiltonianism, territorial expansion and Thomas Jefferson's vision for America and slavery.
- HIS 558 History of the American South** 3 SH
This course provides an opportunity to engage with leading works of Southern history. Covered are topics such as slavery, Indian relations, the colonial economy, the drafting of the federal constitution, the American Revolution, Jacksonian politics, the civil war, reconstruction, segregation, the civil rights movement, Southern culture and the birth of the modern republican majority.
- HIS 570 Chinese Thought and Religion** 3 SH
This course explores the world of thought and religions in traditional China. It focuses on the evolution of Confucianism, Daoism and Chinese Buddhism and challenges students to interpret certain representative works in these traditions. Episodes of cultural clashes in the history of Christian missions in China will be examined to provide a conceptual point of departure for understanding comparative religion and inter-faith dialogue, or simply, for making sense of Chinese religious thought and practices on Western terms.
- HIS 592 Independent Thesis Research in History** 6 SH
This course is designed for students who are fulfilling the thesis requirement for the M.A. in History and who have submitted an acceptable thesis outline. Individual conferences with the thesis adviser are scheduled as needed. Credit will be granted upon submission of one copy of an approved final draft of the thesis and the appropriate number of copies of the thesis abstract. *Prerequisite:* Permission of the department chair and the dean of graduate studies.
- HIS 598 Faculty Developed Course**
This experimental course is offered by the history department as a means of determining its value to the total department program or in response to a particular request from a group of students.

HIS 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of the faculty sponsor and department. Registration through the Division of Graduate Studies is required.

JUSTICE & LAW ADMINISTRATION

JLA 500 Legal Issues in Public Administration

3 SH

This course offers a legal, political and public policy analysis of the law of federal and state administrative regulation with particular emphasis on the balances among the important and potentially conflicting public values.

JLA 511 The Legal Environment of Business

3 SH

This course examines the legal environment of business by focusing on the legal foundations of business activity, government regulation and public policy, social issues and business ethics. Specific areas, such as the U. S. Constitution, contracts and sales, products liability, and corporations and employment arrangements, are surveyed. In addition, ethical implications of management decisions are emphasized in every topic covered.

JLA 515 Policy Analysis in Justice Administration

3 SH

This class focuses on problem-solving and policy-making in both the public and private sectors of the justice system, with emphasis on evaluative and qualitative approaches. It explores agency goal-setting and policy implementation in consonance with the political climate and societal priorities. Also, bureaucracy obstacles are considered and a critical examination of various decision-making models and theories are offered.

JLA 520 Seminar in Law Enforcement Administration

3 SH

This course examines the fundamentals of management as applied to the field of law enforcement, with a specific focus on the need for law enforcement improvement through the management of change. Special attention is given to the latest developments in administration and management as they apply to law enforcement operations, both at the supervisory and administrative levels.

JLA 550 Special Issues in Judicial and Correctional Administration

3 SH

A survey and discussion of the problems surrounding judicial and correctional administration. Students will be exposed to both internal and external constraints with an emphasis on current trends and directions relative to public policy. Focus on the relationship between theory and practice will be the central theme of the course.

JLA 590 Research in Public Administration

3 SH

This course will expand the content offered in FIN 510 in order to reinforce the vital linkage between scholarly literature and data-based decision making. This course will focus on increasing the student's ability to critically comprehend the literature in the field of justice and law administration. *Prerequisite:* FIN 510.

JLA 598 Faculty Developed Course

This is an experimental course offered by the JLA department as a means of determining its value to the total department program or in response to a particular request from a group of students.

JLA 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

MANAGEMENT

MGT 501 Organizational Behavior

3 SH

This course explores the behavior of individuals and their groups within goal-seeking organizations. Topics include: conflict, group dynamics, leadership, decision-making, authority and power, communication and organizational change, and development. The focus is on groups and their functioning within the organization.

MGT 506 Strategic Management

3 SH

This course focuses on the problems in managing organizations effectively in their competitive environments. The purpose, processes and concepts of strategic management are examined and developed by case work on all phases of strategy formulation and implementation. *Prerequisite:* All other required M.B.A. courses.

MGT 510 Management of Operations

3 SH

The course presents the concepts, principles, and knowledge necessary to manage the operations function of an organization. The topics covered include the planning, controlling, directing and organizing of people,

facilities, and materials involved in the operations of quality, inventory, scheduling, costs, methods and productivity. *Prerequisite:* FIN 545.

MGT 521 Strategic Integration of Operations

3 SH

Organizations thrive in this age of strong and increasingly international and national competition only if top management understands how to strategically plan and control the operations function of its business. Without exception, when the operation function fails to significantly contribute to the creation of sustainable competitive advantage, the success of the overall organization is severely handicapped. This course is intended to integrate operational concerns of quality, internal scheduling, external logistics and technology, into a competitive system linked with the strategies of marketing and finance. Accomplishing this also requires integrating policies and procedures of human resources, information systems and accounting functions. The emphasis then is on strategic and ethical operating plans that both align operations with the remainder of the organization and support the long-term success of the organization in the international arena. *Prerequisite:* All core/prerequisite cluster courses.

MGT 525 Managing Public Organizations

3 SH

This course is an examination of the internal and external environments of public agencies. Applications of the principles of public administration within those environments.

MGT 526 Public Financial Management

3 SH

This course is examination of the principles of the economics of public finance and of budgeting. Students will understand the environment of public finance and master analytic tools to improve their understanding of the subject.

MGT 530 Leadership

3 SH

This course focuses on the competencies that the latest research has identified as essential to effective leadership, such as: providing vision, creating and managing change, risk taking, sensing the environment, developing crisis management skills and maximizing human resources. Utilizing readings from history, literature, video and the latest business books, this course will challenge students to identify successful leadership competencies and to examine and develop their own leadership skills.

MGT 544 Negotiations and Conflict Resolution

3 SH

This course deals with negotiations and conflict resolution as a means by which to achieve goals within organizations. Students are provided with strategies and tactics to aid in solving problems of power. While a significant element of the course deals with theory, the bulk of time is spent dealing with practical exercises in order to improve the actual skills of the student. *Prerequisite:* MGT 501.

MGT 547 Human Resource Management

3 SH

This course focuses on the development and maintenance of effective personnel policy in the modern organization. Topics include methods and techniques of job analysis, manpower planning, recruitment and selection, training and development, compensation, performance appraisal and legal guidelines and compliance requirements. Application of human resource management toward achieving overall organizational goals is stressed. *Prerequisite:* MGT 501.

MGT 580 Health Delivery Systems

3 SH

This course offers a general overview of health systems, with particular focus on the American health system, including its history and development and forces affecting its roles and functions. Interaction between components, and contemporary issues and trends are addressed. Analytic methods for assessing and improving systems are discussed.

MGT 581 Health Services Financial Management

3 SH

Analysis of budget development by type of health services agency. Third party reimbursement, short-term and long-term capital financing, cash flow, sources of revenue, cost effectiveness and cost containment are studied. Addressed through a study of concepts, tools and techniques. *Prerequisite:* MGT 580.

MGT 582 Managing Health Services Organizations

3 SH

An overview of the practices and procedures used to manage health services organizations, including the organizational structure, the roles and functions of various constituencies, and the planning, control and communication systems. The skills for effective managerial leadership and management of conflict and change are also examined.

MGT 583 Continuum of Gerontological Services

3 SH

This course describes the continuum of long-term care, and the basic need for health wellness and prevention services' integration and financing. The different programs to care for older persons in hospitals, Hospices, housing arrangement and the home are reviewed. Adult day care, HMOs, PACE, and integrated delivery systems are introduced. The various caregivers, living arrangements, care, and the need to protect older persons from abuse, neglect and as victims are emphasized. *Corequisite:* PSY/GRS 580.

MGT 584 Long-Term Care Administration 3 SH
This course addresses long-term care policy, particularly for the elderly, and includes: definitions, goals, targets for care, organization (including home-based versus institutional care), quality assurance, personnel, family roles, financing and payment mechanisms, and the relationship between long-term care, acute care and housing. *Prerequisite:* MGT 580 and MGT 582.

MGT 585 Health Services Quality Management 3 SH
This course focuses on models of current procedures in health services evaluation and review, professional associations' standards and evaluation and evaluation by state and federal agencies. Topics include administration and clinical evaluations, peer review organizations and accreditation. *Prerequisite:* MGT 580 and MGT 582.

MGT 586 Health Services Marketing 3 SH
This course in marketing management for health services examines the problem of organizational response to consumer desires and needs in the context of a changing market for health services. Consumer behavior and development of marketing mix, product policy, and market strategy appropriate to various health service institutions are covered. *Prerequisite:* MGT 580 and MGT 582.

MGT 587 Health Services Law 3 SH
This is a study of the common and statutory laws affecting health services agency operations. The role of the government in policy development and implementation through regulatory controls is studied. *Prerequisite:* MGT 580.

MGT 591 Introduction to Health Policy 3 SH
This course focuses on the basic concepts of health policy including policy formulation, implementation and evaluation. The dynamics of policymaking are explored, including the role of interest group politics, coalition building and lobbying. *Prerequisite:* MGT 580.

MGT 595 Strategic Managing for Health Services 3 SH
This course focuses on the application of management strategies in the health services industries. The executive and managerial perspectives are both examined. Each student conducts an empirical or non-empirical project and submits a final report to be archived by the Ancell School of Business. Completion of this course fulfills the non-thesis requirement for the M.H.A. degree. *Prerequisite:* 24 graduate credits, MGT 580, MGT 581, MGT 582, MGT 585 and a "B" average.

MGT 598 Faculty Developed Study
This experimental course is offered by the management department as a means of determining its value to the total department program or in response to a particular request from a group of students.

MGT 599 Student Developed Study
This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than one time. *Prerequisite:* Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

MANAGEMENT INFORMATION SYSTEMS (MIS)

MIS 516 Information Analysis 3 SH
This course explores the ways in which major systems develop concepts, tools and methods that help managers perform their roles more effectively and efficiently. Both technical and conceptual tools for designing and implementing information systems will be discussed. Students will also apply theories and concepts to industry-oriented application problems. The role of the manager in systems development will also be emphasized. *Prerequisite:* MIS 260 or equivalent.

MIS 598 Faculty Developed Study
This experimental course is offered by the MIS department as a means of determining its value to the total department program or in response to a particular request from a group of students.

MIS 599 Student Developed Study
This is vehicle designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once. *Prerequisite:* Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

MARKETING

MKT 509 Fundamentals of Marketing Management

3 SH

This is a basic marketing course for M.B.A. students with non-business undergraduate degrees. The critical role of modern, technology-based marketing systems within the enterprise and their contribution to the global economy are covered. The course presents marketing as a managerial philosophy that guides the entire organization in the creation of value-laden relationships with loyal customers.

MKT 533 Promotion and Advertising Strategy

3 SH

This course covers the theories and practices of advertising, sales management, promotion and public relations as related to the overall marketing program. *Prerequisite:* MKT 509.

MKT 534 Strategic Marketing Management

3 SH

This course focuses on the importance of planning as related to an organization's overall marketing program. Marketing planning includes analyzing environments, identifying and measuring markets, developing strategies and objectives, implementing marketing programs and monitoring the process. The course emphasizes marketing decision-making through the development of cooperative interrelations among various internal and external business functions. Topical issues include: marketing technology, customer quality, product development and marketing strategies for the global marketplace. *Prerequisite:* MKT 509.

MKT 539 Effective Managerial Communication

3 SH

The course prepares students to become more effective speakers and writers in the field of business management. Students will participate in informative and persuasive oral presentations, as well as in small group deliberations. Focus will be on business media, particularly electronic media. Each student will deliver a major presentation and write a complex managerial proposal. *Prerequisite:* Graduate matriculation.

MKT 591 Selected Topics in Marketing

1-6 SH

This course provides an examination of an issue, problem, field, methodology or other subject in marketing and related business areas. The methods used in the course may include, but are not limited to, lecture, case, literature review, computer simulation and real-time project with an organization. The specific topic will be announced at the time of the offering. *Prerequisite:* MKT 509.

MKT 598 Faculty Developed Course

This experimental course is offered by the marketing department as a means of determining its value to the total department program or in response to a particular request from a group of students.

MKT 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than one time.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

MATHEMATICS

MAD 502 Foundations of K-6 Mathematics

3 SH

This course is a foundational study of mathematics in the elementary school curriculum. Emphasis will be on generating a teacher's perspective of mathematics content and pedagogy. Content standards of the National Council of Teachers of Mathematics are stressed. *Prerequisite:* Admissions to the Master of Arts in Teaching Program (particularly a passing score on the PRAXIS I exam and the completion of at least two undergraduate general education level mathematics courses with a grade of "B" or higher) or permission of both chairs of the Dept. of Ed. and Ed. Psych. and Dept. of Mathematics.

MAD 511 Topics in Elementary School Mathematics Education

3 SH

This course provides an in-depth study of a single topic or collection of related topics of current interest in elementary school mathematics education. Topics will vary depending on developments in mathematics education and student or program needs. Topics might include curriculum developments, applications, research on teaching, technology, current research on mathematics education or similar topics. May be repeated for credit with different topics. *Prerequisite:* Must hold valid teaching certificate.

MAD 512 Topics in Middle School Mathematics Education

3 SH

This course provides an in-depth study of a single topic or collection of related topics of current interest in middle school mathematics education. Topics will vary depending on developments in mathematics education and student or program needs. Topics might include curriculum developments, applications, research on teaching, technology, current research on mathematics education or similar topics. May be repeated for credit with different topics. *Prerequisite:* Must hold valid teaching certificate.

- MAD 513 Topics in Secondary School Mathematics Education** 3 SH
 This course provides an in-depth study of a single topic or collection of related topics of current interest in secondary school mathematics education. Topics will vary depending on developments in mathematics education and student or program needs. Topics might include curriculum developments, applications, research on teaching, technology, current research on mathematics education or similar topics. May be repeated for credit with different topics. *Prerequisite:* Must hold a valid teaching certificate or be admitted to the Master of Arts in Teaching Program in mathematics.
- MAD 549 Teaching Mathematics in Secondary Schools: Content and Pedagogy** 3 SH
 This course provides secondary teacher candidates with the content and pedagogy necessary to develop an understanding of the methods and materials needed to become effective teachers of mathematics. Candidates are introduced to assessment methods and learn to integrate current instructional technologies into their teaching. Emphasis is placed on strategies for differentiating instruction. Candidates develop lesson plans and units of instruction, practice delivering instruction and observe secondary teachers of mathematics in the field. In addition, they examine current curricular reform movements and consider their impact on mathematics education in the secondary school. The implications of state, national, and international testing movements, state standards/frameworks, the National Council of Teachers of Mathematics (NCTM) standards as well as the NCATE standards are considered. This course will be taught by a member of the mathematics department. *Prerequisite:* Admission to the Professional Secondary Education Teacher Preparation Program and registration in secondary education professional semester courses or Admission to the Master of Arts in Teaching Program or permission of both chairs of the Dept. of Ed. and Ed. Psych. and Dept. of Mathematics.
- MAT 505 Logic** 3 SH
 This course provides a study of the statement and predicate calculus, validity and truth, examples of first-order theories, completeness and proof schemes. *Prerequisite:* One year of calculus.
- MAT 507 - 508 Applied Statistics I, II** 3 SH each
 Topics will be taken from both descriptive and inferential statistics. These include estimation, hypothesis testing, simple and multiple regression analysis, analysis of variance and one or more multivariate techniques such as factor, cluster, discriminant or principal components analysis. Applications from a range of subject areas from the behavioral to physical sciences will be given. Computer statistical packages will be used throughout both semesters. *Prerequisite:* MAT 120 or equivalent.
- MAT 512 - 513 Modern Algebra I, II** 3 SH each
 This is a review of the concepts of groups, rings, fields and vector spaces. Discussion of quotient groups and rings, extension fields, linear transformations and canonical forms. *Prerequisite:* Introduction to Abstract Algebra and Introduction to Linear Algebra.
- MAT 514 - 515 Real Analysis I, II** 3 SH each
 This course analyzes the construction of real numbers by dekind cuts, continuity, series and functions of several variables. Also, Riemann-Stieltjes integrals, Heine-Borel and Bolzano-Weirstrasstheorems, and Lebesgue integration and measure are discussed. *Prerequisite:* Calculus III or equivalent.
- MAT 522 Topics in Advanced Geometry** 3 SH
 This course offers a synthetic and analytic approach to Euclidean, non-Euclidean, affine and projective geometry. The construction of geometry systems from sets of axioms will be emphasized. *Prerequisite:* One year of calculus.
- MAT 526 - 527 Numerical Analysis I, II** 3 SH each
 This course provides the student with a wide range of numerical methods and strategies to deepen his/her insight. The main emphasis will be on numerical treatment of eigenvalue problems and of partial differential equations. More recent applications in linear programming, analysis of network flows and Monte-Carlo methods are included. *Prerequisite:* MAT 431-432 or equivalent.
- MAT 528 Number Theory** 3 SH
 This course covers fundamental theorems and divisibility, prime numbers and congruence of numbers, as well as Theorems of Fermat, Euler, and Wilson, Euclid's algorithm and Diophantine equations. *Prerequisite:* One year of calculus.
- MAT 529 Historical Development of Mathematics** 3 SH
 This course offers a study of mathematical concepts from arithmetic to calculus in their historical perspective. Attention will also be given to contributions of great mathematicians and various cultures and to the relation of mathematics to other sciences. Designed for students with an undergraduate mathematics major or equivalent.

MAT 540 Topics in Mathematics**3 SH**

This course offers an opportunity for students to pursue in greater depth topics introduced in other courses or topics not included in other courses. The topic varies from year to year and from student to student. Typical subjects might include: mathematical models, combinatorics, field theory, algebraic topology, decision theory, harmonic analysis or applications.

MAT 590 Mathematics and Computer Science Department Seminar**3 SH**

This seminar course is for students fulfilling the non-thesis requirements for the M.S. in Education with an Option in Mathematics. The seminar will consist of: 1) independent research into a topic which has interfaces with several branches of mathematics; and 2) oral presentation of the topic for the seminar. *Prerequisite:* ED 501, permission of the department graduate committee and the dean of graduate studies. The topic must be approved by the adviser and the department graduate committee during the semester immediately prior to registering for the seminar.

MAT 591 Independent Thesis Research in Mathematics/Mathematics Education**0-6 SH**

This course is designed for students fulfilling the thesis requirements for the M.A. in Mathematics degree. The submitted topic and outline for the thesis must be approved by the adviser, the department graduate committee and the dean of graduate studies prior to registration for the course. The student will be required to work independently on the thesis research and writing. Credit for the thesis will be awarded upon the submission of one copy of the approved final draft of the thesis and thesis abstract. *Prerequisite:* ED 501 and permission of the department and the graduate dean.

MAT 592 Independent Thesis Research in Mathematics**0-6 SH**

This course is designed for the student fulfilling the requirements for the Master of Arts in Mathematics. The student must submit an acceptable thesis topic and outline in mathematics. Credit for the thesis will be awarded upon the submission of one copy of the approved thesis and abstract. *Prerequisite:* Permission of the thesis adviser and the dean of graduate studies.

MAT 598 Faculty Developed Course

This experimental course is offered by the mathematics department as a means of determining its value to the total department program or in response to a particular request from a group of students.

MAT 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

MAT 704 Matrix Theory and Methods**3 SH**

This course is concerned with properties and applications of matrices and finite dimensional vector spaces.

Prerequisite: MAT 272 or equivalent.

MAT 708 Applied Mathematics**3 SH**

This course offers a mathematical analysis and linear algebra applied to problems from engineering and science. The design and validation of models will be examined. *Prerequisite:* MAT 272, MAT 281 or equivalent.

MUSIC & MUSIC EDUCATION**MUS 509 Performing Organizations****1 SH**

This course offers the study and performance of instrumental or choral works with the WCSU Wind Ensemble, Concert Choir or Chamber Ensemble. Admission is by audition only; one semester hour of credit is the maximum allowable credit earned in one semester. No more than three semester hours of credit are acceptable toward the M.S. degree. *Prerequisite:* Permission of the department. Any semester.

MUS 510 Applied Music**1 SH**

Work on a major or minor instrument may be undertaken for credit. Each student is expected to maintain progress commensurate with graduate level study. Instructors' fees are to be paid by the student and are higher than the regular semester hour rate. No more than three semester hours in applied music are accepted toward the M.S. degree. A student may enroll for one semester hour of credit per major or minor instrument per semester or second summer session. *Prerequisite:* Permission of the department. Any semester.

MUS 515 Chamber Music**3 SH**

This course offers a study of chamber works from Haydn through Crumb, including score study, recordings and actual performance. Formal, harmonic stylistic study of string trios, quartets and larger chamber groups, as well as mixed ensembles with and without strings. Every sixth fall.

- MUS 516 Opera** 3 SH
The developmental process, with regard to style and innovations in form, will be traced by score reading and directed listening to recordings and live performances of the works of such composers as Monteverdi, Handel, Gluck, Mozart, Verdi, Wagner, Puccini, R. Strauss and Berg. Also representative operas will be studied in depth to broaden musical concepts and provide a vehicle for intelligent interpretations. Every sixth fall.
- MUS 520 Form and Analysis** 3 SH
This course offers an analysis of the structural and tonal materials of music, with emphasis on understanding music so that it can be performed or taught with better interpretation. Every fourth spring.
- MUS 522 Twentieth Century Compositional Techniques** 3 SH
Through theoretical analysis, recordings, original composition, philosophy and live performance, this course will present various compositional techniques of the 20th century. Every fourth spring.
- MUS 523 Conducting** 3 SH
This course will review the fundamentals and special problems of conducting; advanced training and experience in choral and instrumental conducting; and advanced application of score reading. Every third summer.
- MUS 527 The Structure of Music** 3 SH
This course represents a study of the techniques of music structure, as it relates to style over the last eight centuries. Every other spring.
- MUS 530 Music Supervision and Administration** 3 SH
This course is designed to provide guidance in the development, administration, implementation and supervision of the music curriculum. Every fourth fall.
- MUS 533 Choral Techniques and Materials** 3 SH
This course is designed for directors of choral groups from fifth through twelfth grades and college, community and church choirs. The course deals with problems of tone quality, intonation, diction, rhythm, repertoire selection, interpretation and the conductor's rehearsal and manual techniques. Every third summer.
- MUS 534 Instrumental Techniques and Materials** 3 SH
This course will examine techniques and materials for instrumental music instruction in public schools. Lecture-demonstration on brass, percussion and woodwind instruments by resident and visiting performer-teachers will be included. Classical and jazz techniques will be covered in each instrumental area. The computer as a "tool" for instrumental music education will be presented, including musical and non-musical (management) uses for the computer. Designed for music teachers currently teaching in public schools. Every third summer.
- MUS 535 Contemporary Strategies in Elementary Music Education** 3 SH
This course surveys current trends and practices in music education from preschool through grade six. Particular attention will be given to the methods and materials of Dalcroze, Orff, Kodaly and Suzuki. Simulated experiences, combined with seminars, lectures and discussions will serve as the focal point of the course. Designed for music teachers currently teaching in the field. Ever fourth fall.
- MUS 536 Topics in Music Education** 3 SH
This course represents an opportunity for students to pursue in greater depth topics introduced in other courses, or topics not covered in present courses in music education. The subject matter would change each time the course is offered. Topics might include specific music education methodologies, ensemble management, program development or updates in the field. *Prerequisite:* Must hold valid teaching certificate. Every other fall.
- MUS 541 Early Music** 3 SH
This course offers an in-depth stylistic analysis of selected pre-Baroque compositions. Emphasis is on listening to and the discussion of representative compositions from the Ars Nova to the late 16th century. Every sixth fall.
- MUS 542 Music in the Baroque Era** 3 SH
This course offers an in-depth stylistic analysis of selected Baroque compositions. Emphasis is on listening to and discussion of representative compositions from 1600 to 1750. Every third summer.
- MUS 543 Music in the Classic and Romantic Eras** 3 SH
This course offers an in-depth stylistic analysis of selected classic and romantic compositions. Emphasis is given to listening to and discussion of representative compositions from 1750 to 1900. Every third summer.
- MUS 544 Music in the 20th Century** 3 SH
Twentieth Century music in its varied expressions is studied chiefly through the historical analysis of works by representative composers. Every third summer.

MUS 545 Topics in Music Literature

3 SH

This course represents an opportunity for students to pursue in greater depth topics introduced in other courses, or topics not covered in present courses in music literature. The subject matter would change each time the course is offered. Topics might include specific historiographical methodologies, ensemble repertoire, performance style, or updates in the field. *Prerequisite:* Must hold undergraduate degree in music. Every other fall.

MUS 590 Music Department Seminar

3 SH

This seminar course is for students fulfilling the non-thesis requirements for the M.S. in Music Education degree. Culminating seminar including a review of content in music education, music literature and structure and organization of music courses and written comprehensive examination. (Final course) Every spring.

MUS 591 Independent Thesis Research in Music

6 SH

This course is designed for students fulfilling the thesis requirements for the M.S. in Music Education degree and who have submitted an acceptable thesis outline and choose to work independently on thesis research and writing. Individual conferences with the thesis adviser are scheduled as needed. Credit will be granted upon submission of one copy of an approved final draft of the thesis and the appropriate number of copies of the thesis abstract. *Prerequisite:* ED 501 and permission of dean of graduate studies. Any semester.

MUS 598 Faculty Developed Course

This experimental course is offered by the music department as a means of determining its value to the total department program or in response to a particular request of a group from students. Any semester.

MUS 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than one time.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required. Any semester.

NURSING

NUR 501 Theoretical Basis of Nursing Practice

3 SH

This course offers an analysis of theories from nursing and other sciences as a conceptual basis for advancing nursing knowledge and practice. Application of theories to clinical practice, nursing management, nursing education and nursing research.

NUR 502 Contemporary Issues in Health Care Delivery

2 SH

This course offers an overview of contemporary issues related to the organization and financing of health care delivery, with an analysis of the development and implementation of health care policy and its impact in shaping health care delivery. Analysis of ethical issues within the context of a changing health care delivery system, with an emphasis on the impact of technological advances and cost-containment measures on ethical issues and decision making.

NUR 504 Nursing Research

3 SH

This is an overview of the research process as applied to problems in clinical nursing practice. Identification of researchable problems. Analysis, synthesis and evaluation of extant research for application in practice, with an emphasis on practice outcomes. *Prerequisite:* undergraduate statistics and research courses. NUR 501 is a pre- or corequisite to NUR 504.

NUR 511 Foundations of Clinical Nursing Practice

3 SH

This course considers the advanced practice nurse role in relation to critical thinking in the design and delivery of nursing care services to clients from diverse settings. Incorporates diagnostic reasoning, development of clinical expertise and application of theory to a range of clinical problems, including health promotion, disease prevention, and the physical and psychosocial management of acute and chronic health problems.

NUR 515 Advanced Pathophysiology

3 SH

This is an advanced study of human physiology and pathophysiology as it applies to nursing intervention and evaluation of outcomes. This course builds upon a strong foundation in anatomy and physiology, emphasizing alterations in cellular structure and function, alterations in biochemical processes and the integration of body systems.

NUR 570 Advanced Clinical Pharmacology

3 SH

This course focuses on pharmacotherapeutic principles, mechanism of action and selection of pharmaceutical agents in clinical practice. Emphasis is on drug therapy and identifying and avoiding adverse drug reactions and interactions. *Prerequisite:* NUR 515 or permission of the nursing department chair.

- NUR 575 Advanced Health Assessment** **3 SH**
 This course focuses on the content and skills necessary to take a comprehensive client history, to perform a physical and psychological assessment of signs and symptoms, to note pathophysiologic changes and psychosocial variations in adult clients. *Prerequisite:* NUR 501, NUR 504, NUR 511; NUR 515. Basic physical assessment course within the past five years or successful performance on paper-and-pencil and practical examinations testing baseline assessment knowledge and skills.
- NUR 580 Advanced Nursing Practice: The Acutely Ill Adult** **2 SH**
 This is an introduction to and the development of nursing expertise in diagnosis, treatment, prevention of complications and promotion of health in adults with acute illnesses. *Prerequisite:* NUR 501, NUR 504, NUR 511, NUR 515; NUR 570; NUR 575; Approved thesis proposal on file. *Corequisite:* NUR 582 or NUR 583.
- NUR 582 The Adult Nurse Practitioner: Management of the Acutely Ill Adult** **4 SH**
 This course considers health promotion, assessment, diagnosis, and management of client problems, including pharmacologic management of adults at risk for or experiencing acute illness. *Prerequisite:* NUR 501, NUR 504, NUR 511, NUR 515; NUR 570; NUR 575; Approved thesis proposal on file. *Corequisite:* NUR 580.
- NUR 583 The Clinical Nurse Specialist and the Acutely Ill Adult Practicum** **4 SH**
 For the clinical nurse specialist student, this course offers an introduction to and development of nursing expertise in diagnosis and treatment to prevent, remediate and alleviate illness and to promote health for adults with acute health problems. Emphasis is on the standards of clinical nurse specialist practice and the three spheres of clinical nurse specialist, which include patient/client, nurses and nursing practice and organization/system. *Prerequisite:* NUR 501, NUR 504, NUR 515, NUR 570, NUR 575. Approved thesis proposal on file in Nursing Office. *Corequisite:* NUR 580.
- NUR 585 Advanced Nursing Practice: The Chronically Ill Adult** **2 SH**
 This course provides an introduction to and development of nursing expertise in diagnosis, treatment and prevention of complications and promotion of health in adults with chronic illnesses. *Prerequisite:* NUR 501, NUR 504, NUR 515, NUR 570, NUR 575, NUR 580 and NUR 582 or NUR 583 or permission of the M.S. in Nursing coordinator; Approved thesis proposal on file. *Corequisite:* NUR 587 or NUR 588.
- NUR 586 Advanced Practice: Gerontological Clinical Nurse Specialist** **3 SH**
 This course will prepare the advanced practice nurse to function in the role of gerontological clinical nurse specialist. The course will consist of two hours of lecture and 12 hours of supervised clinical practicum each week (180 hours per course). The nature and assessment of chronic health considerations of the aged, including health promotion and prevention, will be emphasized. Influences of the elder boom on health care delivery will be discussed. Application of theoretical analysis applicable to the professional enactment of the selected advanced practice role will be achieved through guided clinical experiences. *Prerequisite/Corequisite:* NUR 515.
- NUR 587 The Clinical Nurse Specialist: Management of the Chronically Ill Adult** **4 SH**
 Introduction of the Clinical Nurse Specialist (CNS) student to and the development of nursing expertise in diagnosis and treatment to prevent, remediate and alleviate illness and to promote health for adults with chronic health problems. Standards of CNS practice and the three spheres of CNS role, patient/client, nurses and nursing practice, and organization/system will be emphasized. *Prerequisite:* NUR 501, NUR 504, NUR 511, NUR 515; NUR 570; NUR 575, NUR 580. Approved thesis proposal on file with nursing department. *Corequisite:* NUR 585.
- NUR 588 Adult Nurse Practitioner: Management of the Chronically Ill Adult** **4 SH**
 This course focuses on health promotion, assessment, diagnosis and management of client problems, including pharmacologic management of adults at risk for or experiencing chronic illness. *Prerequisite:* NUR 580, NUR 582 or permission of the M.S. in Nursing coordinator; Approved thesis proposal on file. *Corequisite:* NUR 585.
- NUR 590 Professional Role Enactment** **4 SH**
 This course offers an enactment of the selected advanced practice role through seminar and guided clinical experiences. *Prerequisite:* Completion of foundational core and role requirements.
- NUR 598 Faculty Developed Course**
 This experimental course is offered by the nursing department as a means of determining its value to the total department program or in response to a particular request of a group from students. Any semester.
- NUR 599 Student Developed Study**
 This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than once.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required. Any semester.

PHYSICS, ASTRONOMY & METEOROLOGY

EPS 510 Physical Oceanography

3 SH

This course is a detailed, scientific introduction to physical oceanography. It will consider the physical properties of seawater, important thermodynamic and dynamic processes influencing the oceans, the distribution of currents and oceanic circulation, the formation of water types and masses, as well as ocean waves and coastal processes. Instruments and platforms used to study the ocean will be discussed. *Pre/Corequisite:* PHY 510 or written permission of the instructor.

EPS 530 Planetary Physics

3 SH

This course surveys the structure of planetary bodies in the solar system and the processes that modify them. Among the topics to be covered will be the origin and evolution of the solar system, gravitational interactions between bodies, methods of planetary exploration, dynamics of planetary atmospheres, surface modification and interior structures and compositions. *Prerequisite:* PHY 510 or written permission of the instructor.

EPS 540 Physical Geology

3 SH

This course is an introduction to physical geology. It will develop the basic concepts of physical geology, including examination of the materials composing the Earth as well as understanding the processes, which operate beneath and upon its surface. The physical geology of the other planets in the solar system is briefly introduced. *Pre/Corequisite:* PHY 510 or written permission of the instructor.

EPS 592 Independent Thesis Research in Earth & Planetary Sciences

6 SH

This course is designed for students fulfilling the thesis requirements for the M.A. in Earth and Planetary Sciences degree. Students will submit a thesis proposal; perform independent, original research; write a thesis; and present results in an oral presentation. Individual conferences with the thesis adviser will occur approximately weekly. Credit will be granted upon submission of one copy of an approved final draft of the thesis and thesis abstract. *Pre/Corequisite:* PHY 510, PHY 520 and PHY 590, or written permission from the research thesis adviser and Graduate Program Committee.

EPS 521 Meteorology & Weather Systems

3 SH

This course introduces the student to Newton's Second Law of Motion in a rotating frame of reference and its application to the momentum equations that govern the dynamics of large-scale atmospheric motions. Applications include the geostrophic approximation, circulation and vorticity, quasi-geostrophic analysis and atmospheric waves. *Prerequisite:* PHY 510 or written permission of the instructor.

PHY 510 Thermodynamics

3 SH

This course will develop the basic concepts of classical thermodynamics and apply them to the Earth's atmosphere and oceans, the Earth's lithosphere, mantle and core as well as other planetary environments in the solar system. Equal parts are devoted to theoretical and practical applications. *Prerequisite:* A year of calculus-based general physics.

PHY 520 Scientific Methods

3 SH

This course introduces the application of a variety of physical and mathematical concepts to understanding and establishing scientific research in several disciplines, including: (1) Instrumentation and data acquisition, (2) Numerical modeling and (3) Astronomical instruments and observational techniques. This course will consider at least two of these categories in a modular fashion. *Prerequisite:* A year of calculus-based general physics.

PHY 550 Special Topics in Earth & Planetary Science

2-3 SH

This course is taught as a one-week course in the summer. Each summer features a special topic in one of the disciplines relevant to the field of earth and planetary sciences. The content will rotate between astronomy, meteorology, physical oceanography and physical geology. Faculty or an instructor with expertise in the discipline will teach the course. The instructor will choose the specific topic within each discipline. The basic week-long course is two credits. Students who register for three credits will be given an assignment or project beyond the week-long in-class period. All students will be expected to have read assigned reading prior to the start of the summer course.

PHY 590 Seminar in Earth and Planetary Sciences

3 SH

Each student will perform detailed investigations of three separate major scientific or environmental issues related to earth and planetary sciences. While the instructor(s) will determine a general theme, the specific topic to be investigated by each student will be chosen by the student — subject to the approval of the

instructor. Students will then present to the class material from each of these three research topics: via an abstract, an oral presentation and a short paper. *Prerequisite:* A year of calculus-based general physics.

PHY 598 Faculty Developed Course

This experimental course is offered by the physics, astronomy and meteorology department as a means of determining its value to the total department program or in response to a particular request of a group from students. Any semester.

PHY 599 Student Developed Study

This vehicle is designed to provide the student with an opportunity to develop his/her own learning experience. A student will design a project and secure a faculty sponsor. May be utilized more than one time.

Prerequisite: Written permission of faculty sponsor and department. Registration through the Division of Graduate Studies is required.

PSYCHOLOGY

PSY 580 Gerontology and Normative Aging

3 SH

This course provides an overview of normative development and aging. Specific attention is focused on the demographics of aging; theories of aging; the psychological impact of retirement, disease, chronic illness, bereavement and impending death; and the cognitive, psychological and psychosocial changes that occur with aging.

WRITING, LINGUISTICS, AND CREATIVE PROCESS

WRT 536 Reading for Writers I (Primary Genre)

4 SH

This guided, self-designed course provides the writer with a foundation of readings in the genre. Under the guidance of a professional writer in the genre, each student will develop a substantial reading list of "classics" of the particular writing field as well as the work of important contemporary practitioners.

WRT 537 Reading for Writers II (Second Genre)

4 SH

The rationale for this course is the same as that for Reading for Writers I. However, depending upon the student's individual background and choices of genres, the second genre may be less familiar to the student and therefore, may require extra attention. Under the guidance of a professional writer in the genre, each student will develop a substantial reading list of books.

WRT 539 Genre History, Criticism and Theory

4 SH

Under the guidance of a professional writer or scholar in the writing field, the student will design a specific curriculum for achieving a working awareness of the history, range of criticism and critical theory associated with the writing genre. Reading will certainly be a part of this, but papers or interviews, attendance at lectures, formal courses or other modalities may also be a part of this course. May be directed to either the first or second genre.

WRT 542 Writing in the Primary Genre I

4 SH

With the guidance of a faculty mentor, the student will research, develop and write a customized project or projects for the course.

WRT 543 Online Multi-Genre Workshops I

4 SH

The student will participate regularly with student colleagues and with an instructor in on-line discussion of student work in multiple genres. The course will help students to develop the capacity to analyze, edit, and discuss their own work and the work of others. It will also train them to benefit from editorial observations and critiques. The workshop instructor may also introduce outside texts and writing exercises.

WRT 569 Internship or Teaching Practicum

4 SH

This program requires students to share their understandings as writers with others who want or need to write. The student will work as a teacher or coach of writing under the tutelage of a qualified mentor. Alternatively, the student may participate in an internship to gain hands-on experience in a chosen field. The student will be required to keep a journal of his or her experience and to write a substantial evaluation of the experience.

WRT 571 The Individual and Aesthetic Process

4 SH

The program requires students to develop a sense of their own voices and to learn how to be self-critical about their writing. The student will write a theory of writing that examines his or her own view of what makes effective and significant writing. The goal is to develop standards of value appropriate to the genre in which the writer wishes to excel. The writer must articulate a theoretical basis that involves awareness of critical perspectives on his or her principal genre.

- WRT 576 Writing in the Primary Genre II** 4 SH
This second required course in the primary genre will further develop the writer's skills. Again, students will research, develop and write a project or projects for the course.
- WRT 577 Writing in the Primary Genre III** 4 SH
This third required course in the primary genre will further develop the writer's skills. Again, students will research, develop and write a project or projects for the course.
- WRT 578 Writing in the Second Genre** 4 SH
The professional writer needs the ability to move from one genre of writing to another. The program, therefore, requires the student to concentrate on a second genre of writing. With the guidance of a faculty mentor, the student will research, develop and write a project or projects for this course.
- WRT 579 Online Multi-Genre Workshops II** 4 SH
The student will participate regularly with student colleagues and with an instructor in on-line discussion of student work in multiple genres. The course will help students to develop the capacity to analyze, edit, and discuss their own work and the work of others. It will also train them to benefit from editorial observations and critiques. The workshop instructor may also introduce outside texts and writing exercises.
- WRT 582 Online Multi-Genre Workshops III** 4 SH
The student will participate regularly with student colleagues and with an instructor in on-line discussion of student work in multiple genres. The course will help students to develop the capacity to analyze, edit, and discuss their own work and the work of others. It will also train them to benefit from editorial observations and critiques. The workshop instructor may also introduce outside texts and writing exercises.
- WRT 583 Online Multi-Genre Workshops IV** 4 SH
The student will participate regularly with student colleagues and with an instructor in on-line discussion of student work in multiple genres. The course will help students to develop the capacity to analyze, edit and discuss their own work and the work of others. It also will train them to benefit from editorial observations and critiques. The workshop instructor may also introduce outside texts and writing exercises.
- WRT 584 Thesis/PDE** 8 SH
The student will write a book-length piece of writing in the primary genre. The writer will develop this thesis in consultation with a thesis director and second reader. The program requires students to complete the thesis in a publishable form as judged by the thesis adviser and M.F.A. coordinator and reviewed by the M.F.A. committee.
- WRT/ENG 585 An Apprenticeship in Teaching College Writing** 1-3 SH
See ENG/WRT 585.
- WRT/ENG 586 Practicum in Teaching College Writing** 1-3 SH
See ENG/WRT 586.