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**ACCOUNTING**

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<b>ACT</b>	<b>6625</b>	<b>Specialized Study in the Area of</b>
	<b>6626</b>	<b>Accounting (1-3)</b>
	<b>6627</b>	<p>Study of problem or problems using research techniques. Selection of the problem must be approved by the student's adviser, instructor under whom the study is to be made, and the appropriate dean . The study must contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combin001 Tc.8.2(enor)8.2obmy these courses may not exceed six semester hours. A specialized study may be substituted for a required course only once in a student's program. See semester hour limits listed under Course Restrictions in the General Regulations section. <i>Prerequisite: All business foundation courses or equivalent and MBA–Accounting Option prerequisites.</i></p>



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**BIOLOGY**

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**BIO 5502 Spring Flora (4)**  
A survey of vascular plants from different habitats in southeast Alabama. Principles of plant taxonomy, including history and systems of classification and nomenclature, the use of dichotomous keys, and general her-

- BIO L533 Embryology Lab (1)**  
A study of embryonic development of vertebrates as illustrated by the frog, chick, and pig. Lab includes experimental investigations of developing systems. *Co-requisite: BIO 5533*
- BIO 5545 Ichthyology (3)**  
This course covers the morphology, anatomy, physiology, taxonomy, life histories, distribution, and adaptations of fishes. *Prerequisites: General Biology, General Ecology. Co-requisite: BIO L545*
- BIO L545 Ichthyology Lab (1)**  
A study of the structural features, identification, and classification of freshwater and marine fishes. *Co-requisite: BIO 5545*
- BIO 5546 Herpetology (3)**  
A study of the morphology, anatomy, physiology, taxonomy, life histories, distribution, and adaptations of amphibians and reptiles. *Prerequisites: General Biology, General Ecology. Co-requisite: BIO L546*
- BIO L546 Herpetology Lab (1)**  
A study of the structural features, identification, and classification of amphibians and reptiles. *Co-requisite: BIO 5546*
- BIO 5547 Ornithology (3)**  
A study of the morphology, anatomy, physiology, taxonomy, life histories, distribution, and adaptations of birds. *Prerequisites: General Biology, General Ecology. Co-requisite: BIO L547*
- BIO L547 Ornithology Lab (1)**  
A study of the structural features, identification, and classification of birds. *Co-requisite: BIO 5547*
- BIO 5548 Mammalogy (3)**  
A study of the morphology, anatomy, physiology, taxonomy, life histories, distribution, and adaptations of mammals. *Prerequisites: general biology, general ecology. Co-requisite: BIO L548*
- BIO L548 Mammalogy Lab (1)**  
A study of the structural features, identification, and classification of mammals. *Co-requisite: BIO 5548*
- BIO 5551 Toxicology (3)**  
A study of the principles related to the adverse effects of chemicals on living organisms. *Prerequisite: Organic Chemistry. Co-requisite: BIO L551*
- BIO L551 Toxicology Lab (1)**  
An assessment of terrestrial and aquatic toxicity of chemical agents following standard protocols. *Co-requisite: BIO 5551*
- BIO 5571 Parasitology (3)**  
This course covers the taxonomy, structure, life histories, distribution, pathogenesis, and



**BIO 6630 Pollution Science (3)**  
A study of pollution of atmosphere, surface water, and soil and groundwater from animate activities and inanimate processes. Adverse effects, fate, and transport of pollutants in air, soil, and water. *Prerequisite:*

<b>BUSINESS</b>		
<b>BUS</b>	<b>5502</b>	<p><b>Fundamentals of Accounting and Finance (3)</b> A survey of fundamental theories, concepts, principles, and practices in finance, financial accounting, and managerial accounting that provides a foundation for further study in graduate accounting and business courses. Students must earn a grade of "B" or better in the course.</p>
<b>BUS</b>	<b>5503</b>	<p><b>Fundamentals of Economic Analysis and Business Law (3)</b> A survey of key concepts in economics and business law that provides a foundation for further study in graduate economics and the MBA curriculum. Students must earn a grade of "B" or better in the course.</p>
<b>BUS</b>	<b>5504</b>	<p><b>Fundamentals of Management and Marketing (3)</b> A survey of key concepts in marketing and management that provides a foundation for further study in graduate marketing and management courses. Students must earn a grade of "B" or better in the course.</p>
<b>BUS</b>	<b>5505</b>	<p><b>Fundamentals of Information Systems and Quantitative Methods (3)</b> A survey of key concepts in statistics and information systems that provides a foundation for further study in graduate quantitative methods and management information systems. Students must earn a grade of "B" or better in the course.</p>
<b>BUS</b>	<b>5511</b>	<p><b>Fundamentals of Accounting (1.5)</b> A survey of fundamental theories, concepts, principles, and practices in financial and managerial accounting that provides a foundation for further study in graduate accounting and business courses. The course is self-paced, with minimal instructor involvement and offered only online. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Accounting. <i>Prerequisite: Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>
<b>BUS</b>	<b>5512</b>	<p><b>Fundamentals of Finance (1.5)</b> A survey of fundamental theories, concepts, principles, and practices in finance that provide a foundation for further study in graduate finance and business courses. The course is self-paced with minimal instructor involvement, and offered only online. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Finance. <i>Prerequisite: BUS 5511 or equivalent; Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>
<b>BUS</b>	<b>5513</b>	<p><b>Fundamentals of Economic Analysis (1.5)</b> A survey of key concepts in microeconomics that provides a foundation for further studies in the graduate economics and business courses. A self-paced, self-guided course of instruction offered online only. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Economics. <i>Prerequisite: Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>
<b>BUS</b>	<b>5514</b>	<p><b>Fundamentals of Business Law (1.5)</b> A survey of key concepts in business law that provides a foundation for further study in graduate business law and business courses. The course is self-paced, with minimal instructor involvement, and offered only online. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Business Law. <i>Prerequisite: Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>
<b>BUS</b>	<b>5515</b>	<p><b>Fundamentals of Management (1.5)</b> A survey of key concepts in management that provides a foundation for further study in graduate management and business courses. The course is self-paced, with minimal instructor involvement and offered only online. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Management. <i>Prerequisite: Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>
<b>BUS</b>	<b>5516</b>	<p><b>Fundamentals of Marketing (1.5)</b> A survey of key concepts in marketing that provide a foundation for further study in graduate marketing courses and business courses. The course is self-paced, with minimal instructor involvement, and offered only online. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Marketing. <i>Prerequisite: Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>
<b>BUS</b>	<b>5517</b>	<p><b>Fundamentals of Information Systems (1.5)</b> A survey of key concepts in information systems that provides a foundation for further study in graduate management information system and business courses. The course is self-paced, with minimal instructor involvement, and offered only online. Student must earn at least a grade of 80 on the final comprehensive exam to satisfy the CPC requirements in Information Systems. <i>Prerequisite: Admission in the MBA, MSM, or MSHRM graduate programs.</i></p>





- CHM L552 Physical Chemistry I Laboratory (1)**  
An introduction to methods and techniques used in the physical chemistry laboratory, including experiments in calorimetry, phase equilibria, reaction kinetics, and transport properties. *Co-requisite: CHM 5552*
- CHM 5553 Physical Chemistry II (3)**  
A continuation of CHM 5552 with an introduction to surface phenomena, quantum chemistry, and spectroscopy with an emphasis on properties of surfaces, atomic and molecular structure, molecular orbital theory,



be approved the preceding term by adviser, course supervisor, and department chair. Total credit for any combination of enrollments in these courses may not exceed six hours. See semester hour limits listed under Course Restrictions in General Regulations section. Total specialized study hours may not exceed six semester hours.

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**COUNSELING**

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<b>CP</b>	<b>6600</b>	<p><b>Professional Orientation and Ethics (3)</b> An introductory course to the world of professional counseling. Course content includes historical overview, concepts, approaches, philosophy and development of the counseling profession. Professional roles, organizations, credentialing, legal/ethical issues, and professional standards of care are covered. <i>Prerequisites: Recommended first course.</i></p>	<b>CP</b>	<b>6616</b>	<p><b>Treatment of Addictive Family Diseases (3)</b> A study of typical characteristics of dysfunctional families. Provides the basis for suggested intervention techniques, appropriate areas of family education, and guidelines for effective therapy.</p>
<b>CP</b>	<b>6601</b>	<p><b>Legal, Ethical, and Professional Standards (3)</b> This course assists counseling personnel in acquiring information and understanding necessary to effectively deal with legal, ethical and professional standards of the counseling profession.</p>	<b>CP</b>	<b>6617</b>	<p><b>Treatment Theories and Modalities of Addictive Disease (3)</b> A study of historical perspectives and the most effective treatment and assessment approaches of addictive diseases.</p>
<b>CP</b>	<b>6602</b>	<p><b>Seminar in the Prevention/Treatment of Chemical Dependency (3)</b> An examination of specified issues which must be addressed to promote successful recovery in the treatment of chemical dependency.</p>	<b>CP</b>	<b>6620</b> <b>6621</b> <b>6622</b>	<p><b>Readings in Counseling and Psychology (1-3)</b> An independent exploration of the literature related to verbal and nonverbal communication, listening, and human relations under the supervision of a faculty member. An examination will be required upon the conclusion of the course. This course may be offered as a seminar. See semester hour limits listed under Course Restrictions in General Regulations section.</p>
<b>CP</b>	<b>6605</b>	<p><b>Foundations of Mental Health Counseling (3)</b> A study of the historical, philosophical, societal, cultural, economic, and political dimensions within mental health practice. This course will address the professional identity, functions, and issues facing mental health practitioners: principles, theories, and practice of community intervention and the human services network; fiscal and administrative management of programs; and public policy and governmental relations impacting mental health services.</p>	<b>CP</b>	<b>6625</b> <b>6626</b> <b>6627</b>	<p><b>Specialized Study in Counseling (1-3)</b> A study of a problem or a topic using research techniques or a guided program of readings. Preparation of a scholarly paper is required and may involve an oral defense. A specialized study may be substituted for only one required course or elective in a student's program. Approval by the student's adviser, the course instructor, and department chair is required. See semester hour limits listed under Course Restrictions in General Regulations section.</p>
<b>CP</b>	<b>6610</b>	<p><b>Facilitation Skills and Counseling Techniques (3)</b> A focus on the development and application of basic facilitation skills necessary for becoming an effective helping professional. Skills are developed through a combination of didactic, experiential, and demonstrated learning activities to train the beginning counselor in the establishment and maintenance of therapeutic relationships. <i>Prerequisites: CP 6600 or adviser's approval.</i></p>	<b>CP</b>	<b>6634</b>	<p><b>Drug Education, Prevention, and Intervention (3)</b> A study of commonly abused drugs, drug abuse prevention, and treatment techniques. Examines characteristics of people at high risk to become substance abusers/addicted.</p>
			<b>CP</b>	<b>6635</b>	<p><b>Crisis Response Management (3)</b> This course provides community personnel, school personnel and other education and/or health professionals/paraprofessionals information about the nature of global and local disasters. Course content includes appropriate responses to a variety of crisis scenarios and information on major theories of crisis intervention.</p>
			<b>CP</b>	<b>6636</b>	<p><b>Foundations of Student Affairs (3)</b> This course is designed to provide a comprehensive introduction to the field of student affairs in higher education through a review of its historical and philosophical influences; purpose, roles, and functions; and contemporary issues and trends.</p>

220 COURSE DESCRIPTIONS

**CP 6637 Administration of Student Affairs Programs  
(3)**



222 COURSE DESCRIPTIONS

**their families as well as approaches for advocating for these populations will be explored.**  
*Prerequisites: CP 6650, CP 6652, PSY 6653.*

an object-oriented approach. The course assumes familiarity with object-oriented programming. It focuses on the appropriate processes, models and metrics in quality software development. *Prerequisite: CS 4446 or CS 5547*

**CS 5545 Computer Architecture (3)**  
Functional descriptions of the major components of digital computer architectures are

224 COURSE DESCRIPTIONS

**CS 6649 Special Topics in CS (3)**







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the late 20<sup>th</sup> century, emphasizing the post World War II period. The course will focus on the historical devel

- EBS 6620 Field Protistology (4)**  
An advanced study of protists from freshwater and marine habitats including collection techniques, taxonomy, identification, structure, life histories, and protistan ecology.
- EBS 6621 Environmental Toxicology (3)**  
This course is a foundation for scientific decision-making involving contaminants and their effects on biological systems. It covers the basic principles of environmental toxicology including bioaccumulation, the biological effects of toxicants from the molecular to global level or organization, and a basic understanding of the risk of environmental pollutants and the science of risk assessment. *Prerequisites: Eight semester hours or equivalent of chemistry*
- EBS 6623 Environmental Negotiations and Conflict Resolution (3)**  
An examination of the approaches to resolving environmental disputes through alternative dispute resolution techniques.
- EBS 6624 Public Health (3)**  
The impact of the environment on humans as well as the human impact on the environment serve as the dual focus of this course. Environmental agents of physical, chemical, and biological nature with adverse effect on human health will be considered. The physiological, molecular, cellular, genetic, and biochemical mechanisms of action of environmental carcinogens, toxins, pollutant, and other disease-causing environmental agents and the interaction of various environmental agents with biological systems will be addressed. *Prerequisite: None*
- EBS 6625 Specialized Study in Environmental and  
6626 Biological Sciences (1-3)**  
The student has the opportunity to engage in intensive study of a particular subject or learn a pertinent skill, which fits his/her academic and/or professional needs, but is not available in the regular curriculum. This may include educational activities or training outside of the University. The student will follow the guidelines that the Department has established for the supervision and the pursuance of this study. *Requires approval of the student's adviser and the department chair. See semester hour limits listed under Course Restrictions in General*

<b>EBS</b>	<b>6661</b>	<p><b>Conservation Biology (3)</b>                  Examination of the principles, practices, and philosophy of measuring, maintaining, and enhancing biological diversity. The course focuses on the applications of ecology, population biology, and genetics of the conservation of keystone and rare species and ecosystems. <i>Prerequisite: An undergraduate ecology course is highly recommended.</i></p>	<p>acquisition and interpretation of data) in a particular area of environmental or biological science. The completion of a thesis is required. The results and conclusions must be successfully defended before the student's graduate committee. Grading system is Pass / Fail.</p>
<b>EBS</b>	<b>6662</b>	<p><b>Invasive Species Biology (3)</b>                  This course will familiarize students with the principles of ecological invasions and factors affecting the spread and impacts of invasive species. Students will also become familiar with major sources of exotic species introductions, and methods available for prevention and control.</p>	<p>Refer to specific departmental listings in the <i>Troy University Graduate Catalog</i> for full course descriptions of BIO (biology), BUS (business), CHM (chemistry), and GEO (geography). Information pertaining to MB (marine biology) is also provided.</p> <p><i>Note: Graduate students may not enroll in a 5000 numbered course if it duplicates the same course listed on an undergraduate transcript.</i></p>
<b>ECONOMIC DEVELOPMENT</b>			
<b>EBS</b>	<b>6664</b>	<p><b>Restoration Ecology (3)</b>                  An introduction to ecological approaches toward reconstruction of degraded or destroyed ecosystems. Ecological basis of creating self-sustained ecosystems. Planning, implementing and assessing restoration programs. Economic and social context of restoration. <i>Prerequisites: An Ecology course and one year of General Chemistry</i></p>	<p><b>ECD 6625 6626 6627</b> <b>Specialized Study in the Area of Economic Development (1-3)</b>                  Study of problem or problems using research techniques. Selection of the problem must be approved by the student's adviser, the instructor under whom the study is to be made, and the appropriate dean. The study should contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combination of enrollments in these courses may not exceed six semester hours. A specialized study may be substituted for a required course only once in a student's program. <i>Prerequisite: All business foundation courses or equivalent.</i></p>
<b>EBS</b>	<b>6665</b>	<p><b>Sustainable Development (3)</b>                  This course will increase student awareness of sustainability issues concerning the future survival of human and other organisms on the planet. The course specifically covers the following: biological diversity trends, human population growth, agriculture and food consumption issues, water use and supplies, global warming and effects on biological diversity, sustainable fisheries, forest products and services, and other issues. <i>Prerequisites: None</i></p>	<p><b>ECD 6660</b> <b>Theories of International Economic Development (3)</b>                  This introductory course offers an interdisciplinary approach to economic development theory and bridges theory with "real world" economic development active ties through case examples. <i>Prerequisite: All business foundation courses or equivalent.</i></p>
<b>EBS</b>	<b>6670 6671</b>	<p><b>Special Topics (1-4)</b>                  Specialized topics not generally included in course offerings. A maximum total of four semester hours is allowed for program credit.</p>	
<b>EBS</b>	<b>6691</b>	<p><b>Research Methodology and Experimental Design (3)</b>                  This course will include hands-on statistical experience emphasizing hypothesis testing using a statistical software system. It will combine several elements of research methodology including developing a grant proposal that will include topic selection, literature search, question formulation, methods, statistics, and a budget. <i>Prerequisite: Three semester hours in probability and statistics or permission of instructor.</i> A grade of "B" or better is required.</p>	<p><b>ECD 6661</b> <b>Economic Development Finance (3)</b>                  This course prepares students in the fundamental concepts and methods of economic development finance. <i>Prerequisite: All business foundation courses or equivalent.</i></p> <p><b>ECD 6662</b> <b>Applied Spatial Analysis for International Economic Development (3)</b>                  This course prepares students to conduct economic development-related research through the application of computerized mapping software. <i>Prerequisite: ECD 6660</i></p>
<b>EBS</b>	<b>6695</b>	<p><b>Thesis Research (1- 6)</b>                  Under the guidance of the student's adviser and the chair of the department, the student may pursue original research (independent</p>	<p><b>ECD 6680</b> <b>Field Experience in International Economic Development (3)</b>                  This course integrates academic knowledge with practical skills to develop professional</p>







given to studying legal issues and community relations. Legal issues and services related to exceptional children will be closely examined. The development of ethical standards, informed legal decision making, and emergency procedures for ensuring safety, as well as the political factors which impact schools, society and community relations will be studied.

**ECE 7790 Qualitative Research Methodology (3)**  
The purpose of this course is to provide graduate students with an introduction to qualitative research methodology. The historical development, rationale, and relationship to quantitative research will be examined. Qualitative research methods will include procedures for selection and sampling and for data collection and analysis. Students will read a variety of qualitative studies and conduct a brief qualitative research project. *Prerequisite: Course in research or tests and measurement*

**ECE 7793 Problem Analysis in ECE (3)**  
A study of processes involved in identifying, framing, evaluating analyzing, and seeking information about problems. Emphasis is given to information collection and processing. Students will select and analyze a problem related to early childhood education or elementary education. *Restricted to students enrolled in an Education Specialist program.*

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### ECONOMICS

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**ECO 6652 Macroeconomics and Forecasting (3)**  
An analysis of the courses of business cycles with the applications of macroeconomic theory and economic forecasting techniques available to the business manager. *Prerequisite: All business foundation courses or equivalent.*

**ECO 6654 Labor Economics (3)**  
An overview of the forces of supply and demand as related to labor markets; wage determination and resource allocation in U.S. labor market operations; the interrelationship of labor and the national economy, wages, prices, and employment; and labor economics in the microenvironment. An introduction to wage determination policies and strategies in a competitive global marketplace. *Prerequisite: All business foundation courses or equivalent.*

**ECO 6655 Managerial Economics (3)**  
A study of the decision-making process of business firms in the resource allocation process. Both the functioning of the markets and the decisions of firms in a variety of market structures are considered. Various

theories of the firm are used to study the optimal decision-making rules for business firms under conditions of uncertainty. *Prerequisite: All business foundation courses or equivalent.*

**ECO 6657 International Trade and Economics (3)**  
Principles and problems of international economics, trade theory, international payments, and monetary policies, economic integration, international economic institutions and policies, and contemporary developments in political economy. *Prerequisite: All business foundation courses or equivalent.*

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### GIFTED EDUCATION

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**EDG 6666 Nature and Needs of Gifted Individuals (3)**  
This foundation course in the study of gifted education and talent development focuses on understanding gifted individuals, assessment and identification issues in finding gifted students in the schools, models often used to provide education for gifted students and developing support systems for programs for gifted learners.

**EDG 6667 Creativity (3)**  
This course in creative thinking in gifted education focuses on understanding creativity and creative students. This course emphasizes the importance of helping children and adolescents become more self-actualized, creative individuals to better enable them to make important contributions to society. *Prerequisite: EDG 6666 Nature and Needs of Gifted Individuals*

**EDG 6668 Integrating Thinking Skills into the Curriculum (3)**  
The focus of this course is the integration of critical and productive thinking skills into the curriculum for gifted learners. This course emphasizes an inquiry-based approach to differentiation of the curriculum content for gifted learners. *Prerequisite: EDG 6666 Nature and Needs of Gifted Individuals.*

**ng Skills into the Cur-**



based courses and programs. Students design an educational web site and develop a strategy to deliver web-based instruction. *Prerequisite: EDU 6605, 6606, 6607 or permission of the instructor*

**EDU 6617 Graphic Design in Multimedia Instruction (3)**

A study of graphic design principles as they apply to the development of multimedia instructional courseware. The course integrates advanced graphics, multimedia authoring and web design software to teach the student relevant technology as it applies to instructional design. Students apply graphic design principles in developing a variety of multimedia instructional products working individually and in teams. *Prerequisite: EDU 6605, 6606 or permission of the instructor*

**EDU 6618 Advanced Multimedia Production (3)**

An advanced course in computer based multimedia interactive course design. The course integrates course design software, multimedia authoring, web design and presentation graphics in the development of a multimedia lesson or course. The course concentrates on the total instructional process culminating complete multimedia class delivered either by disk or internet. Students develop their own video and audio elements learning the complete production process necessary for multimedia instructional products. *Prerequisite: EDU 6605, 6606, 6607 or permission of the instructor*

**EDU 6625 Specialized Study in Area of Education (1-3)**

**6626**  
**6627**  
This course focuses on the study of a problem or problems using research techniques. Selection of the problem must be approved by the student's adviser, the instructor under whom the study is to be made, the appropriate college dean, and the Dean of the Graduate School. The study should contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combination of enrollments in these courses may not exceed 4 semester hours. A specialized study may be substituted for a required course only once in a student's program. See semester hour limits listed under Course Restrictions in General Regulations section.

**EDU 6629 The Master Teacher (3)**

This course is designed to assist the beginning graduate student in determining the expectations and attributes of the master teacher. Major emphasis will focus on effective teacher characteristics, skills and practices of teaching, as well as a review of the requirements for National Board for Professional Teaching Standards (NBPTS).

All traditional masters degree teacher education candidates must complete this course in the first nine semester hours attempted. Formal admission to Graduate Teacher Education Program (GTEP) will be completed as a part of the course.

**EDU 6630 Teachers and the Law (3)**

This course is designed to help teachers become legally literate by providing them with information about the law that affects them, how the legal system works, and how that system can work for them.

**EDU 6632 Seminar in Classroom Teaching (2)**

This course is an inter-disciplinary seminar course designed for classroom teachers who desire to investigate in depth the techniques, procedures and strategies related to improving learning through improved teaching.

**EDU 6645 The Nature of Intelligence (3)**

This course provides a description and analysis of the quantitative and qualitative aspects of intelligence. It includes classic and contemporary theories of learning and their relationship to the understanding of individual differences.

**EDU 6650 Global Education in the Elementary/Middle School (3)**

This course is designed to instruct teachers about the complexities of citizenship in a world community, current issues, and concerns in this field, and methods of globalizing the existing elementary curriculum.

**EDU 6653 Educational Evaluation (3)**

A study of the basic statistical processes and measures used in education. Analysis of a variety of standardized tests and measurements procedures including construction, use and interpretation. Construction of teacher made tests and measuring devices.

**EDU 6655 The Arts Curriculum (3)**

This course prepares the teacher to provide a broad-based arts education program that includes history, interpretation, production, and appreciation. Emphasis is placed on utilizing the arts to enrich students learning in all curricular areas.

**EDU 6656 Teaching the Bilingual Child (3)**

This course prepares teachers to make classroom and instructional accommodations to meet the needs of the bilingual child. It also addresses facilitating home-school partnerships with families of bilingual children.

**EDU 6658 Understanding Cultural Diversity (3)**

Understanding of culturally different studies, the psychological and sociological factors that influence the counseling, teaching or training, and the employment of the culturally different. Special emphasis is placed

- on current practices utilized in overcoming the deficiencies in school, home, and work settings.
- EDU 6665 Field Project (3)**  
The content of this course is variable, depending on student interests. The determination of the course content for each student will be made through collaboration between the student, the student's adviser, and the Instructor. Students may focus on supervised teaching, action research, or a project with a P-12 school system. This course is open only to students enrolled in teacher education programs. The field project does not replace the comprehensive exam. Students are required to take the comprehensive exam.
- EDU 6672 The Wiregrass Writing Project (3)**  
The Wiregrass Writing Project is the local affiliate of the Alabama Writing Project and the National Writing Project. The National Writing Project strives to improve student writing achievement by improving the teaching and learning of writing in the nation's schools. The 165 sites operate on a teachers teaching teachers model. Successful writing teachers who attend this invitational summer institute will examine their classroom practice, conduct research of sound theory supporting particular approaches to the teaching of writing, and develop their own writing skills.
- EDU 6680 The Alternative Experience Internship Grades K-6 (3)**  
This field experience is designed only for students who are admitted to the Alternative Fifth-Year Experience Route Program in Elementary Education. The internship will consist of a minimum of 100 clock hours of instructional experiences in elementary classroom (K-6) settings. Grading system is Pass / Fail.
- EDU 6682 Internship in Area of Specialization (3)**  
This field experience is designed for teacher education candidates who hold current graduate-level professional educator certification and desire additional certification in another field and/or level. Experiences include planning, teaching and supervised activities in an approved clinical setting. Grading system is Pass / Fail. *Prerequisite: Admission to the Teacher Education Program, completion of all required coursework, and approval from the Director of Teacher Education.*
- EDU 6691 Research Methodology (3)**  
This course is a study and evaluation of a variety of research methods and types of reporting. (May carry the prefix appropriate to the program of study i.e. SPE, SED, IED). A grade of "B" or better is required.
- EDU 6693 Quantitative Methods of Evaluation of Teaching and Learning (3)**  
This course is a study of descriptive and inferential statistics commonly used in the literature of psychology and education. Emphasis is placed on the application of statistical method to research design. Instruction deals specifically with measures of central tendency and variability, probability theory, estimation and significance, correlation and regression, analysis of variance, and chi-square. A grade of "B" or better is required.
- EDU 6695 Thesis (3)**  
The thesis must be related to an educational problem or situation. Information regarding the thesis program may be obtained from the Dean of the Graduate School. This course may be repeated. Grading system is Pass / Fail.
- EDU 6696 Practicum in Area of Specialization (1-6)**  
The Practicum is supervised experiences related to instruction in area of specialization. The application of skills, concepts, and principles acquired in previous courses will be emphasized. *Prerequisite: All Teaching Field courses must be completed.*
- EDU 6698 Introduction to Research (3)**  
This course is designed to assist graduate students as they become competent consumers and producers of educational research. Purposes, designs, and characteristics of quantitative and qualitative research will be examined as students read and analyze a variety of studies.
- EDU 6699 Research in Practice (3)**  
The purpose of this course is to provide graduate students in teacher education programs with an opportunity to design, implement, and write about practical quantitative or qualitative research related to their own teaching. Joint research projects with P-12

public education in order to frame problems, identify possible causes, seek and collect information, delineate steps to solutions, and generate possible solutions to problems



provides the student with the opportunity to conduct classes and assume the role of a teacher while receiving supervision from a classroom teacher and a university supervisor for a period of one full semester. Grading system is Pass / Fail.

**ELE 7725 Specialized Study in Elementary  
7726 Education (1-3)  
7727** A study of the problem using research techniques. Selection of problem must be approved by the professor under whom the study is to be made, and the Dean of Education. The study should contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combination of





- ENG 5504 Milton (3)**  
A study of Milton's poetry and major prose.
- ENG 5505 History of the English Language (3)**  
A study of the development of English from the Anglo-Saxon period through the present, with reference to the Indo-European background of English.
- ENG 5513 Modern Short Story (3)**  
An examination of 20th- and 21st-century short stories.
- ENG 5515 Modern Drama (3)**  
A detailed study of selected British and/or American plays written between 1900 and present. Review of production history, subject matter, staging, and dramatic techniques. Several oral and written reports. List of plays may vary with each offering.
- ENG 5516 Nineteenth-Century American Novel (3)**  
A study of representative American novels of the 19<sup>th</sup> century.
- ENG 5526 Modern Poetry (3)**  
A study of 20<sup>th</sup>- and 21<sup>st</sup>- century poetry.
- ENG 5527 Contemporary American Literature (3)**  
An examination of representative American literature from the postmodern period (1960-present), with special emphasis on the diversity of themes, styles, and cultural contexts influencing the literary marketplace. Course readings may vary with each offering.
- ENG 5528 The Age of Johnson (3)**  
A study of the works of Samuel Johnson and his most important contemporaries, from about 1745 to 1798.
- ENG 5530 Shakespeare I: The Tragedies (3)**  
A study of major and minor tragedies, with some attention to non-dramatic poetry. List of plays may vary with each offering.
- ENG 5531 Shakespeare II: The Comedies (3)**  
A study of comedies and romances. List of plays may vary with each offering.
- ENG 5532 Shakespeare III: The Histories (3)**  
A study of history plays, especially those concerning Wars of the Roses. List of plays may vary with each offering.
- ENG 5533 Literary Criticism (3)**  
A study of the major literary critics and their works from classical times to the present.
- ENG 5534 Romantic Period in English Literature (3)**  
A study of Romantic prose and poetry with emphasis on the writings of Blake, Coleridge, Wordsworth, Byron, Keats, and Shelley.
- ENG 5535 The Bible as Literature (3)**  
This course studies select works for the Bible for their literary qualities, composition and preservation techniques, and the historical factors that determined inclusion or exclusion as a sacred text.
- ENG 5542 Advanced Writing (3)**  
An intensive study of and practice in expository and argumentative prose. Requires writing several essays. Some evaluation of other students' writing.
- ENG 5543 Southern Writers (3)**  
A study of works by writers from the American South from colonial times to the present.
- ENG 5552 Medieval and Renaissance English Drama (3)**  
A survey of drama from the Middle Ages and Renaissance, excluding Shakespeare. Begins with brief study of folk and liturgical origins of drama, includes a few medieval mystery and morality plays, and features Renaissance plays by Heywood, Udall, Kyd, Marlowe, Beaumont, Fletcher, Jonson, and Webster.
- ENG 5557 Form and Theory of Nonfiction Literature (3)**  
This course examines the theories behind various forms of nonfiction literature, whether autobiography, biography, the essay, diaries and/or travel writing, with special emphasis on the historical evolution of a particular form. List of readings will vary with each offering.
- ENG 5560 Victorian Poetry (3)**  
A study of Victorian poetry, with emphasis upon the works of Tennyson, Browning, Arnold, and Hardy.
- ENG 5561 Victorian Prose (3)**  
A survey of the works of major Victorian prose writers, with emphasis upon the works of Carlyle, Newman, Mill, Ruskin, Arnold, and Pater.
- ENG 5562 The Arthurian Legend Through the Ages (3)**  
This course will examine the Arthurian legend not only in literary and historical works from its earliest traces in the Middle Ages to .012670001 Tcorie7.1467 TD.0016 Tc0 Tw(pres009study)-8.v

- ENG 5568 Methods and Approaches in Second Language Teaching (3)**  
This course traces the evolution of language teaching from the methods era (e.g., grammar translation method, audiolingual method) to post-methods approaches (e.g., task-based learning, content-based learning, communicative approaches). Students will develop a repertoire of teaching approaches and identify appropriate options for different language teaching scenarios.
- ENG 5569 Principles, Techniques, and Materials in Second Language Teaching (3)**

**ENG 6625 Specialized Study in Area of English (1-4)**  
**6626** A study of problem or problems using  
**6627** research techniques. Selection of problem to  
be approved by student's adviser, instructor  
under whom study is to be done, and direc-  
tor of graduate studies. Study should con-

- ENG 6680 Thesis Option in Literature (3)**  
An advanced study of a problem or issue in literary studies. Selection of topic must be approved by the student's thesis director, who will oversee the project. Final project must demonstrate knowledge of extant criticism on the topic and should contribute to the student's program. Oral defense of the thesis required before final approval. Recommended for students interested in pursuing doctoral work in literature.
- ENG 6691 Research in Education (3)**  
Research strategies for English educators and procedures for evaluating the language arts. ENG 6691 is a prerequisite for ENG 6696 Practicum.
- ENG 6696 Practicum in Area of Specialization, English (3)**  
Supervised experiences related to instruction in area of specialization. The application of skills, concepts, and principles acquired in previous courses will be emphasized. *Prerequisite: All courses in Teaching Field Component and ENG 6691 must be completed.*

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**FINANCE**

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- FIN 6625 Specialized study in the Area of Finance**  
**6626 (1-3)**  
**6627**  
Study of problem or problems using research techniques. Selection of the problem must be approved by the student's adviser, the instructor under whom the study is to be made, and the appropriate dean. The study must contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combination of enrollments in these courses may not exceed six semester hours. A specialized study may be substituted for a required course only once in a student's program. See semester hour limits listed under Course Restrictions in the General Regulations section. *Prerequisite: All business foundation courses or equivalent.*
- FIN 6631 Managerial Finance (3)**  
A comprehensive and advanced study of financial analysis, planning and control techniques for a business entity with emphasis on corporations. *Prerequisite: All business foundation courses or equivalent.*
- FIN 6632 Investments (3)**  
An introductory investments course which identifies and analyzes various forms of



An analysis of private, state, and federal revenue sources; student aid, program budgets, financial methods and practices through the combination of theory with problems and issues facing the financing of higher education.

**HEA 6696 Practicum in Higher Education (1-3)**  
The Practicum is a supervised application of the concepts, principles, and skills acquired

- HIS 5523 U.S. Foreign Policy To 1920 (3)**  
A study of the factors, forces, and functions in the making of American foreign policy from the 1760's to 1920. Note: May be used for political science credit.
- HIS 5530 Civil Rights Movement (3)**  
Study of the origins of the Civil Rights Movement in the late nineteenth and twentieth centuries, beginnings of change in the 1930s and the World War II era, and the movement itself as defined by legal, political, and social conflict and change from the latter 1940s to the present.
- HIS 5532 Russia to 1861 (3)**  
A study of the history of the Eastern Slavic people from the prehistoric period, through the Kievan, Appanage, Muscovite, and Imperial periods from Peter the Great to the emancipation of the serfs in 1861.
- HIS 5533 Russia since 1861 (3)**  
The development of the revolutionary movements and tsarist reform attempts, World War I, revolutions of 1917 and Bolshevik victory, establishment of the Stalinist state, World War II, the Cold War, Soviet domestic problems, and the disintegration of the USSR.
- HIS 5534 Major Personalities in the Development of Civil Rights in America (3)**  
Study of important civil rights personages and their writings from Fredrick Douglass and other pre-Civil War activists and thinkers to the present.
- HIS 5535 Historical Geography of North America (3)**  
An analysis of the physical and cultural factors in the development of North America from early European settlement to the present. Note: May be used as geography credit.
- HIS 5536 Civil Rights in Alabama (3)**  
Study of the history of civil rights in Alabama beginning with the Reconstruction period and progressing through significant events and developments to the present. Course emphasis also will include legal developments and important personalities.
- HIS 5541 American Constitutional Development (3)**  
American constitutional system with empha-



- HIS 5583 Latin American States (3)**  
Cultural, social, political, and economic development in 19<sup>th</sup> and 20<sup>th</sup> centuries and international and U.S. relations.
- HIS 5595 Selected Topics in History (3)**  
Historical examination of a designed topic of special and/or current interest and importance, which is generally not covered in regularly offered courses by the department. See semester hour limits listed under Course Restrictions in General Regulations section.
- HIS 6600 Problems in 19<sup>TH</sup> Century American Thought (3)**  
Concentrated study of the history of ideas in the United States from 1800 to 1900. On demand.
- HIS 6602 Problems in 20<sup>TH</sup> Century American Thought (3)**  
Concentrated study of the history of ideas in the United States, 1900 to present. On demand.
- HIS 6603 Seminar in 18<sup>TH</sup> Century American Thought (3)**  
An exploration of major historical works and historiographical controversies in 18<sup>th</sup> century United States. On demand.
- HIS 6604 Seminar in Modern France (3)**  
The evolution of France from the formation of the Third Republic to the present.
- HIS 6607 Issues in International Affairs (3)**  
With directed reading and periodic discussion sessions, this course serves to expand the student's knowledge of current issues in the global setting. Formerly called



safety programs. *Prerequisite: All business foundation courses or equivalent.*

- HRM 6645 International Human Resource Management (3)**  
A survey of theory and practice of human resource management in global firms and issues of cross cultural communication and behavior affecting organizational effectiveness in culturally diverse organizations. *Prerequisite: All business foundation courses or equivalent.*
- HRM 6689 Human Resource Management Internship (3)**  
Must be unconditionally admitted to the

- HSA 6684 Managed Care: Origins, Organizations, and Operations (3)**  
 Covers managed care programs, structures, practice models, role of physicians and other clinicians, capitation, cost-accounting and forms of reimbursement. *All business foundation courses or equivalent are required for MBA, MSM, and MSHRM programs.*

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### INTERDISCIPLINARY EDUCATION

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- IED 5544 Internship Seminar (3)**  
 This course provides interns an opportunity to develop analytical thinking skills through examining broad educational issues and concerns, topics on the state and local levels, and those of personal interest. The scope of the course ranges from juvenile law, classroom management, professionalism, professional development for teachers, and other course topics. This course must be taken concurrently with internship. Grading system is Pass / Fail.
- IED 6655 Interdisciplinary Internship in Grades P-12 (6)**  
 The Professional Internship Program is the culminating clinical field-based experience for students seeking certification in a teaching field. The Professional Internship Program provides the student with the opportunity to conduct classes and assume the role of a teacher while receiving supervision from a classroom teacher and a university supervisor for a period of one full semester. Grading system is Pass / Fail.

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### INTERNATIONAL HOSPITALITY MANAGEMENT

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- IHM 6625 Specialized Study in the Area of International Hospitality Management (1-3)**  
**6626**  
**6627** Study of problem or problems using research

- IHM 6689 International Hospitality Management Internship (3)**  
 For the International Hospitality Management concentration only, a consulting-type internship of at least 120 hours will be completed in place of the core MGT 6627 requirement, and will be accomplished with a hospitality industry firm (hotel, lodging, or restaurant chain or tourism board) after completing no fewer than 21 semester hours in the program, including nine semester hours in the IHM concentration. (Required in the IHM concentration.)

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**INSTRUCTIONAL LEADERSHIP  
AND ADMINISTRATION**

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- ILA 6603 Tools for Managing Educational Resources (3)**  
 This course teaches instructional leadership candidates the skills and knowledge needed to conduct school business. Candidates will learn to manage a school's educational resources. This course will focus on the following areas: organizational skills, financial planning, facilities management, technology usage, and principles and best practices needed to manage a school. *Prerequisite: Restricted to candidates who are admitted to a State of Alabama approved Instructional Leadership & Administration program.*
- ILA 6607 Readings in Leadership (3)**  
 This course explores current literature and thinking in the field of organizational and administrative theory and practice pertaining to instructional leadership. *Prerequisite: Restricted to candidates who are admitted to a State of Alabama approved Instructional Leadership & Administration program.*
- ILA 6609 Communication and Problem Solving (3)**  
 This course is designed to improve the instructional leadership candidates' skills in communication and problem solving. Emphasis will be placed on listening skills, group dynamics, conflict resolution and consensus building. Special attention will be given to these topics while working with ethnically diverse populations. *Prerequisite: Restricted to candidates who are admitted to a State of Alabama approved Instructional Leadership & Administration program.*
- ILA 6610 Grant Writing (3)**  
 This course explores how to write a grant and discusses alternative ways of fundraising. Particular attention will be given to grant writing protocols and procedures, as

of collaborative learning environments

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**INTERNATIONAL RELATIONS**

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Disarmament, and Proliferation,"  
"Nationalism and World Order,"  
"Peacekeeping," or "Organized Use of  
Force") All selected topics courses must be



ing peace and peacekeeping at the local, national, and global levels to include theoretical constructs about conflict management techniques (mediation, negotiation, escalation, de-escalation, termination, and outcomes).

- IR 6656 International Power and Influence (3)**  
A theoretical and empirical examination of how nations use political, military, and economic resources to influence the behavior of other nations. The course will consider the effectiveness of political communications, public relations, foreign aid, economic sanctions, threats of force, and limited uses of force. Special emphasis will be placed on the effects of foreign influences on domestic politics.
- IR 6660 Military Strategy and International Relations (3)**  
An assessment of military leaders and armed forces in the development of national security and foreign policies; classical methods

- IR 6688 Islamic Fundamentalism (3)**  
An advanced seminar dealing with the theology and practice of Islam and its impact on international, legal, political, security, and social issues.

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### INFORMATION SYSTEMS

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- IS 6625 Specialized Study in the Area of**  
**6626 Information Systems (1-3)**  
**6627** Study of problem or problems using research techniques. Selection of the problem must be approved by the student's adviser, the instructor under whom the study is to be made, and the appropriate dean. The study must contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combination of enrollments in these courses may not exceed six semester hours. A specialized study may be substituted for a required course only once in a student's program. *Prerequisite: All business foundation courses or equivalent.*
- IS 6672 Information Systems and Business Strategy (3)**  
Considers the role of operations and information systems in defining competitive business strategies. Structural decisions (product design, marketing, and finance) as well as issues that cross corporate boundaries (strategies for distribution, supply management and global operations) are addressed. Examines emerging issues such as global manufacturing, e-commerce, sourcing strategies, manufacturing automation and environmental issues. *Prerequisite: All business foundation courses or equivalent.*
- IS 6674 Information Systems Management (3)**  
Theoretical and practical applications for managing computerized information systems; planning and control functions of the firm; emphasis on case studies of design projects;



<b>KHP 6673</b>	<b>Ethics in Sport (3)</b> The course is examines ethical matters and issues relating to sport and physical activity.	<b>MB 5504</b>	<b>Marine Botany (4)</b> A general survey of algae and vascular plants associated with the marine and estuarine environment. <i>Prerequisites: BIO 1101, L101, 2229, L229, CHM 1143, L143</i>
<b>KHP 6674</b>	<b>Entrepreneurship in Sport (3)</b> The course provides the student with an awareness and understanding of basic concepts and problems in starting a business.	<b>MB 5506</b>	<b>Marsh Ecology (4)</b> A study of the floral and faunal elements of various marine marsh communities. <i>Prerequisites: BIO 1101, L101, 2229, L229, CHM 1143, L143</i>
<b>KHP 6691</b>	<b>Research Methods in Health and Physical Education (3)</b> This course examines the variety of research methods and reporting methods used in health & physical education research. A grade of "B" or better is required. <i>Prerequisite: KHP 6617 with a "B" or better.</i>	<b>MB 5521</b>	<b>Marine Technical Methods (2)</b> An introduction to the hardware of marine science, sampling procedures, processing, station location, and field equipment maintenance/operation.
<hr/> <b>LAW</b> <hr/>			
<b>LAW 6600</b>	<b>Business Law for Accountants (3)</b> This course focuses on the legal implications of business transactions, particularly as they relate to accounting and auditing. It includes, but is not limited to, such topics as contracts, commercial paper, secured transactions, business organizations, and real and personal property. This course is designed to give a review of basic legal principles and to enable a student to recognize and understand their legal significance in business transactions. <i>Prerequisite: LAW 2221 or equivalent and all business foundation courses or equivalent.</i>	<b>MB 5523</b>	<b>Marine Ecology (4)</b> Lecture and laboratory studies of bioenergetics, community structure, population dynamics, predation, competition, and speciation in marine ecosystems. <i>Prerequisites: BIO 2229, L229, CHM 1143, L143</i>
		<b>MB 5526</b>	<b>Coastal Zone Management (2)</b> An examination of specific laws and regulations which govern the coastal zone and how coastal processes affect management issues. <i>Prerequisites: BIO 1101, L101, 2229, CHM 1143, L143</i>

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**MASTER OF BUSINESS ADMINISTRATION**


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**MARINE BIOLOGY (MB)**


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**Offered at Dauphin Island Sea Lab (DISL) only**

*Courses are offered during the summer semester only. Since course offerings change, check the current DISL summer bulletin for specific course offerings and descriptions and contact the Marine Biology Adviser at Troy or Dothan.*

*The courses listed below are taught at Dauphin Island Sea Lab in the summer only. The faculty members are recruited from many colleges and universities within and outside Alabama. The courses are identified by an MB prefix.*

<b>MB 5502</b>	<b>Marine Invertebrate Zoology (4)</b> A study of the natural history, systematics, and morphology of marine invertebrates from a variety of habitats in the Gulf of Mexico. Participation in extended field trips is part of the course. <i>Prerequisites: BIO 1101, L101, 2229, L229, CHM 1143, L143</i>	<b>MBA 6611</b>	<b>Business Strategy (3)</b> This course is the capstone course in the MBA program. It integrates the skills and knowledge developed in earlier courses and emphasizes case analysis. Formulation and implementation of strategies are stressed. The course includes an end-of-course comprehensive examination. A grade of "B" or better is required to complete this course successfully. The course may not be transferred into the MBA program. Students are required to complete the graduate Educational Testing Service Major Field Test and a Capstone Examination in this course. <i>Prerequisites: Completion of a minimum of 24 semester hours in the MBA program, with a "B" average or better, including the following courses: ACT 6691, ECO 6655, FIN 6631, MKT 6661 and QM 6640; or approval of the department chair. Students</i>
<b>MB 5503</b>	<b>Marine Vertebrate Zoology (4)</b> A study of the biology of marine vertebrates emphasizing systematics, behavior, physiology, and ecology of local forms. <i>Prerequisites: BIO 1101, L101, 2229, L229, CHM 1143, CHM L143</i>		

**MANAGEMENT**

**MGT 6689 Management Internship (3)**  
Independent study of a practical problem or project, pertinent to a management concentration, taken in a field setting. A formal written paper or report on the problem or project will be submitted according to the guidelines set forth by the instructor. A verbal presentation and/or oral examination covering problem or project research and findings/results is required. No more than one internship may be used as the MSM "select one" elective. The course may not be substituted for a required course. *Prerequisite: All business foundation courses or equivalent.*

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### MARKETING

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**MKT 6661 Strategic Marketing Management (3)**  
Application of marketing concepts, principles and procedures for planning, development, implementation and control of marketing programs in profit and non-profit organizations. Emphasis is on the matching of organization resource and strength with global marketing opportunities, and strategies to overcome environmental threats. *Prerequisite: All business foundation courses or equivalent.*

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### MATHEMATICS

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**Note:** *Multivariable calculus and a course in proof techniques or its equivalent or permission of the mathematics adviser are required prerequisites for all graduate mathematics courses.*

**MTH 5512 Discrete Mathematics (3)**  
This course covers sets, relations, functions, counting, algorithms, Boolean algebra, and graphs.

**MTH 5520 Introduction to Graph Theory (3)**  
The elements of the theory and algorithms of graphs and hypergraphs with motivating examples from computer science, networking, scheduling, biology etc.: algorithms, complexity, data structures, shortest paths, spanning trees, depth-first search, planar graphs, colorings of graphs and hypergraphs. *Prerequisites: Linear Algebra, computer programming course, or permission of instructor.*

**MTH 5522 Numerical Analysis (3)**  
This course covers topics including finite differences, interpolation, numerical integration and differentiation, solutions of equations of one variable, linear systems, and numerical solutions of ordinary differential equations.

**MTH 5524 Real Analysis I (3)**  
A study of the real number system, completeness, limits, continuity, sequences, differentiation, and the Riemann integral.  
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**MTH 5525 Real Analysis II (3)**  
A study of sequences and series of functions, series, and a continuation of the integral to include the Fundamental Theorem of Calculus. *Prerequisite: MTH 4424 or MTH 5524.*

**MTH 5526 Complex Analysis (3)**  
A study of complex numbers, elementary functions and their mappings, complex limits and power series, analytic functions, integrals, contour integral, and Cauchy integral formula.

**MTH 5536 Number Theory (3)**  
This course covers divisibility, congruences, prime numbers, Fermat's theorem, Diophantine equations, number theoretic functions, quadratic reciprocity.

**MTH 5541 Abstract Algebra I (3)**  
A study of properties of the integers, modular arithmetic. Elementary theory of groups, finite groups, subgroups, cyclic groups, permutation groups. Group isomorphisms and homomorphisms.

**MTH 5542 Abstract Algebra II (3)**  
This course covers the elementary theory of rings, polynomial rings, divisibility, unique factorization domains. Integral domains, ideals, factor rings, divisibility in integral domains. Elementary theory of fields. Extension fields. *Prerequisite: MTH 4441 or MTH 5541.*

**MTH 5551 Mathematical Statistics I (3)**  
A study of probability theory, sample spaces, random variables, mutual exclusion, independence, conditional probability, permutations and combinations, common discrete and continuous distributions, expected value, mean, variance, multivariate distributions, covariance, Central Limit Theorem.

**MTH 5552 Mathematical Statistics II (3)**  
A study of the fundamentals of the theory of statistics, the Central Limit Theorem, point estimation, sufficiency, consistency, hypothesis testing, sampling distributions, confidence intervals, linear regression models, interpretation of experimental results, Bayesian Estimation. *Prerequisite: MTH 4451 or MTH 5551.*

**MTH 5560 Topology (3)**  
An introduction to metric and topological spaces and associated topics, separation axioms, compactness, and connectedness.

**MTH 6600 Modern Topics in Mathematics (3)**  
An investigation of current topics in mathematics that are generally not covered in regularly offered graduate courses in the mathematics graduate curriculum. *Prerequisites will be determined by the topic under investigation.*







	<b>5517</b>	<b>Clarinet</b>
	<b>5518</b>	<b>Oboe</b>
	<b>5519</b>	<b>Flute</b>
	<b>5520</b>	<b>Bassoon</b>
	<b>5521</b>	<b>Saxophone</b>
	<b>5522</b>	<b>Trumpet</b>
	<b>5523</b>	<b>Horn</b>
	<b>5524</b>	<b>Trombone</b>
	<b>5525</b>	<b>Euphonium</b>
	<b>5526</b>	<b>Tuba</b>
	<b>5527</b>	<b>Percussion</b>
	<b>5528</b>	<b>Guitar</b>
<b>MUS</b>	<b>5543</b>	<b>History of the Band in the United States (3)</b> The history of the band in this country from the early military bands through town, industrial, church, professional, circus, fraternal, school, and college bands.
<b>MUS</b>	<b>5553</b>	<b>Techniques and Literature of Brass Instruments (3)</b> A study of the techniques of all the brass instruments, the use of extant methods and literature for developing these techniques, and their applicability in individual and group public school teaching situations.
<b>MUS</b>	<b>5554</b>	<b>Literature and Techniques of Sacred Music (3)</b> A comprehensive survey of materials and methods for use in sacred choral music programs.
<b>MUS</b>	<b>5562</b>	<b>Arranging for Band and Chorus (3)</b> This course covers arranging for football shows, concert work, special vocal and instrumental groups. Study of ranges, voicing, and balance. Short-cuts and techniques in reproducing parts.
<b>MUS</b>	<b>5571</b>	<b>Music for ECE and Elementary School (3)</b> A study of the materials and planning techniques for music in grades P-6. Singing, listening, movement, instrument playing, and creative activities will be explored. Multicultural elements, observation, teaching experiences, and practical application of ideas will be included.
<b>MUS</b>	<b>5582</b>	<b>Choral Techniques (3)</b> This course focuses on organizational and rehearsal procedures, choral tone, diction, and choral literature.



- MUS 6662 Advanced Instrumental Arranging (3)**  
A study of advanced arranging and scoring concepts for instrumental ensembles. Study of contemporary harmony, voicing, scoring methods, and their applications to various ensemble groupings.
- MUS 6670 Practical Band Instrument Repair (3)**  
This course covers the maintenance, repair and supervision of equipment used by modern music educators. Exploration of industry guidelines and evaluation of financial restraints on music programs. System and rationale for evaluating equipment will be developed.
- MUS 6691 Research and Evaluation in Music Education (3)**  
A study and evaluation of a variety of research methods, types of reporting, analysis of standardized tests and construction of teacher-made tests. Required of all graduate music majors.
- MUS 6695 Thesis (3)**  
Three hours may be applied toward fulfilling degree requirements when approved by the student's adviser and the Dean of Graduate Studies and Research. Grading system is Pass / Fail.
- MUS 6696 Practicum (1-3 credit hours)**  
Supervised experiences related to instruction in music education. Application of skills, concepts and principles acquired in previous courses will be emphasized.

- in nursing education. Involves supervised experience in the role of the nurse educator. *Prerequisite: NSG 5504, 6660, 6691, 6692 and clinical specialty courses. Co-requisite: NSG 6614.* Sp
- NSG 6616 Role of the Nursing Administrator (2)**  
Assists students to evaluate the role of the nurse administrator, analyze issues and trends in nursing administration, and design strategies for resolution of issues and conflicts within the functional role. *Prerequisites: NSG 5504, 6660, 6691, 6692 and clinical specialty courses. Co-requisite: NSG 6617.* Sp
- NSG 6617 Nursing Administration Internship (3/12)**  
Provides opportunities to apply management theories basic to nursing, administration. Involves supervised experiences in role of nurse administrator. *Prerequisites: NSG 5504, 6660, 6691, 6692 and clinical specialty courses. Co-requisite: NSG 6616.* Sp
- NSG 6620 Advanced Acute Care Nursing of Adults (2)**  
Focuses on the adult health nursing specialist's role in the acute care setting. Emphasizes theories, concepts, issues, and trends relative to nursing care of the adult in acute care settings. *Prerequisites: NSG 5504, 5512, 5515, 6671, 6692. Co-requisites: NSG 6621, 6660, 6691.* Sp
- NSG 6621 Advanced Acute Care Nursing Preceptorship (3/9)**  
Clinical preceptorship in adult health nursing in acute care. *Co-requisite: NSG 6620, 6660 and 6691.* Sp
- NSG 6622 Advanced Long-Term Nursing Care of Adults (2)**  
Focuses on the nursing specialist's role in long-term care. Emphasizes theories, concepts, issues, and trends relative to nursing care of the adult with long-term healthcare needs. *Prerequisites: NSG 6620, 6621. Co-requisite: NSG 6623, 6649.* F
- NSG 6623 Advanced Long-term Nursing Care of Adults Preceptorship (3/9)**  
Clinical preceptorship in adult health nursing in long-term care. *Prerequisites: NSG 6620, 6621. Co-requisites: NSG 6622 and 6649.* F
- NSG 6625 Specialized Study in Advanced Nursing (1/4)**  
**6626**  
**6627**  
Under supervision of a faculty member, student may pursue study in selected area applicable to the practice of nursing which fits his/her academic needs but is not available in the regular curriculum. Total credit for any combination of enrollments in these courses may not exceed four semester hours.
- NSG 6631 Computer Based Communication (3)**  
An examination of communication technologies in the context of the healthcare delivery environment. Issues and applications addressed include hardware and software basics, file management, the Internet and the World Wide Web, electronic communication, and security. F
- F, Sp, Su See semester hour limits listed under Course Restrictions in General Regulations section.

NSG	<b>6640</b>	<p><b>Advanced Maternal/Infant Health Nursing (2)</b> Focuses on the knowledge and theory base critical to advanced practice in maternal/infant health nursing. The primary emphasis is the normal processes of childbearing and neonatal health. <i>Prerequisite:</i> NSG 5504, 5512, 5515, 6671, 6692. <i>Co-requisites:</i> NSG 6641, 6660 and 6691. Sp.</p>	NSG	<b>6659</b>	<p><b>Adaptation of FNP Role (1)</b> Presents the conceptual and theoretical base of the advanced practice role of the family nurse practitioners. <i>For the post-master's FNP certificate student.</i> Sp</p>
NSG	<b>6641</b>	<p><b>Advanced Maternal/Infant Nursing Preceptorship (3/9)</b> Provides the opportunity to incorporate advanced knowledge and theories into the nursing care of childbearing families. <i>Co-requisites:</i> NSG 6640, 6660, 6691. Sp.</p>	NSG	<b>6660</b>	<p><b>Foundations of Advanced Practice (2)</b> Focuses on the advanced practice nurse's role in healthcare. Emphasizes the theoretical bases critical to leadership in the advanced practice role. Sp.</p>
NSG	<b>6642</b>	<p><b>High-Risk Maternal/Infant Health Nursing (2)</b> Prepares the student to manage the care of high-risk clients and their families. Focuses on both acute and chronic conditions and illnesses that can affect maternal and neonatal health. <i>Prerequisites:</i> NSG 6640, 6641. <i>Co-requisites:</i> NSG 6643, 6649. F</p>	NSG	<b>6665</b>	<p><b>Primary Care I (3)</b> Focuses on advanced knowledge and theory base in the assessment and care of children and women of child-bearing age. Health promotion is emphasized, but the practitioner is also prepared to deliver complex multifaceted care to clients in home, acute, and rehabilitative settings. <i>Prerequisite:</i> NSG 5512 and 5513. <i>Co-requisite:</i> NSG 6666. Su</p>
NSG	<b>6643</b>	<p><b>High-Risk Maternal/Infant Health Nursing Preceptorship (3/9)</b> Provides the student the opportunity to apply advanced knowledge and theories to the care of mothers and infants experiencing deviations from normal processes. <i>Prerequisites:</i> NSG 6640, 6641. <i>Co-requisites:</i> NSG 6642, 6649. F</p>	NSG	<b>6666</b>	<p><b>Primary Care I Preceptorship (3/9)</b> Clinical course in the advanced practice role of the family nurse practitioner with pediatric clients and women of childbearing age in primary care settings. <i>Prerequisites:</i> NSG 5512, 5513. <i>Co-requisite:</i> NSG 6665. Su</p>
NSG	<b>6645</b>	<p><b>Family and Cultural Theories in Advanced Nursing Practice (3)</b> Provides the student with in-depth knowledge of family and cultural assessment. Further analysis of diverse cultures and multi family structures enhance the student's application of advanced nursing interventions. Su</p>	NSG	<b>6667</b>	<p><b>Primary Care II (3)</b> Focuses on advanced knowledge and theory base in the assessment and management of care of adult and gerontologic clients in primary care settings. <i>Prerequisites:</i> NSG 5504, 6660, 6665, 6666, 6691, 6692. <i>Co-requisite:</i> NSG 6668. F</p>
NSG	<b>6649</b>	<p><b>Advanced Pharmacology (3)</b> Presents knowledge and theory critical to management of the pharmacological needs of a variety of populations. Discusses major classification of drugs and protocols for administration. F</p>	NSG	<b>6668</b>	<p><b>Primary Care II Preceptorship (3/9)</b> Clinical preceptorship course in the advanced practice role of the family nurse practitioner with adult and gerontological clients in the primary care settings. <i>Prerequisites:</i> NSG 6665, 6666. <i>Co-requisite:</i> NSG 6667. F</p>
NSG	<b>6655</b>	<p><b>Synthesis and Evaluation of Advanced Nursing Practice (1)</b> Presents students with information concerning structure and format of the comprehensive examination. Focuses on the critical thinking and communication skills integrated throughout the curriculums which are the functional base of the professional role. Grading system is Pass / Fail. <i>Prerequisites:</i> NSG 5504, 6660, 6691, 6692 and clinical specialty courses. Sp</p>	NSG	<b>6670</b>	<p><b>Role Synthesis Seminar (1)</b> Provides a forum for the analysis and synthesis of role behaviors specific to the family nurse practitioner. Emphasis is on the role, patterns of health promotion, primary care, and prof</p>

270 COURSE DESCRIPTIONS

- NSG 6680 Family Nurse Practitioner Internship (5/20)**  
Internship course designed to provide extensive clinical experience with a broad spectrum of clients to allow students opportunities to strengthen clinical skills in specific areas. *Prerequisite: All core and FNP nursing specialty courses. Co-requisite: NSG 6670. Sp*
- NSG 6691 Research Methodology (3)**  
Evaluates the principles of the research process for both quantitative and qualitative research. Emphasis is on the utilization and generation of research and evidence-based practice relevant to advanced nursing. (A grade of "B" or better is required.) Sp
- NSG 6692 Data Analysis Techniques in Research (2)**







**PA 6647 Advanced Contract Administration (3)**

with the final core course in the MPA program. To successfully complete this course, the student must achieve a grade of "B" or better.

**NOTE:** *Courses from disciplines other than Public Administration (CJ, HRM, MAN, IR, PSY, EBSEBS, and EDU) used as PA concentration selections are described in the Catalog sections pertaining to those programs.*

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**PHYSICS**

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<b>PHY</b>	<b>5500</b>	<p><b>Topics in Physics (3)</b> This course focuses on selected topics in the field of physics. These may include geophysics, biophysics, nuclear power and waste, relativity, health physics, astrophysics, mathematical methods in physics, particle physics.</p>
<b>PHY</b>	<b>5510</b>	<p><b>Modern Physics (3)</b> Special relativity, quantum mechanics, and many electron systems. <i>Prerequisites:</i> MTH 1125 and PHY 2253, L253 or PHY 2263, L263. <i>Co-requisite:</i> PHY L510</p>
<b>PHY</b>	<b>L510</b>	<p><b>Modern Physics Laboratory (1)</b> Selected experiments in modern physics. <i>Co-requisite:</i> PHY 5510</p>
<b>PHY</b>	<b>5511</b>	<p><b>Advanced Modern Physics (3)</b> Foundations of statistical physics, solid state physics, nuclear physics, elementary particles, astrophysics, and cosmology. <i>Prerequisites:</i> PHY 5510</p>
<b>PHY</b>	<b>5520</b>	<p><b>Mechanics (3)</b> A study of the kinematics and dynamics of particles and systems of particles.</p>
<b>PHY</b>	<b>5530</b>	<p><b>Electromagnetic Fields (3)</b> A study of vector fields, dielectric and magnetic media, fields in conductors, electric and magnetic circuit elements. Maxwell's equations and boundary condition problems in one, two and three dimensions.</p>
<b>PHY</b>	<b>5559</b>	<p><b>Optics (3)</b> The principles of geometrical and physical optics. Image formation, refraction, diffrac-</p>

- POL 5533 Comparative Government (3)**  
Comparative analysis of major world power governments with emphasis upon comprehension of differences which lead to international tensions.
- POL 5551 International Relations (3)**  
Analysis of contemporary world politics, including structures and processes through which states interact, power politics, geopolitics, regional alliances, and psychological warfare.
- POL 6625 Specialized Study in Area of Political  
6626 Science (1-4)  
6627**  
Study of problem or problems using research techniques. Selection of problem must be approved by student's adviser, professor under whom study is to be made, and Dean of the Graduate School. Study should contribute to student's program. Preparation of scholarly paper required and may involve oral defense. Total credit for any combination of enrollments in these courses is not to exceed four semester hours. A specialized study may be substituted for a required course only once in a student's program. See semester hour limits listed under Course Restrictions in General Regulations section.
- POL 6665 Reading in International Relations (3)**  
Guided program of reading and study of international relations. Should be related to student's needs and have approval of adviser. See semester hour limits listed under Course Restrictions in General Regulations section.

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**POST SECONDARY EDUCATION**

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- PSE 6606 Current and Emerging Instructional  
Technologies (3)**  
This course focuses on current and emerging instructional technologies. The emphasis of this class is on the instructional use of production software, desktop publishing, graphics, hypermedia, on-line services, optical technology, and telecommunications. *Prerequisite: EDU 6605 or permission of instructor.*
- PSE 6608 Curriculum Integration of Technology (3)**  
The purpose of this course is to prepare students to apply knowledge and competency in instructional technologies in relation to curriculum design, diverse models, and teaching situations at all developmental levels. Included is evaluation of software, audio/visual production, and instructional design using technology as a basis for instruction.
- PSE 6612 Community Junior College (3)**  
This course covers the rise and development of the community or junior college in

American education, its philosophy and functions with specific attention to the transfer, terminal, and community service functions. Problems of organization, curriculum construction, staff-1306.79( )6.a-requisite: E67 TD-.0002 Tc02

may focus on supervised teaching, action research, or a project with a major field agency. *Prerequisites: This course is open only to students enrolled in the Masters of Science in Post Secondary Education program who have completed 18 hours of coursework including the research class.*

- PSE 6670 Psychological Foundations of the Adult Learner (3)**  
An in-depth study of research findings and psychological concepts related to the nature of adult learners and learning processes; principles of motivation, effective instructional design geared toward adult learners; and social and cultural influences on adult learning. Emphasis will be given to the understanding of critical and variable attributes of adult learners.
- PSE 6680 Curriculum Development for Adult Education (3)**  
A study of concepts, learning theories, materials, and media related to curriculum and program development in adult education.
- PSE 6691 Research Methodology (3)**  
The study and evaluation of research methods commonly used in the social sciences. The course will provide information necessary to understand and apply research processes, synthesize knowledge and writing, and plan and organize research problems for interpretation and application of research results. Application of these skills in the form of a written project using the Publication Manual of the American Psychological Association (APA) is required. A grade of "B" or better is required.
- PSE 6694 Special Problems in Adult Education (1-3)**  
The study of problem or problems using research techniques. Selection of problem to be approved by student's adviser and instructor under whom study is to be made.

**PSY 6613 Objective Personality Assessment (3)**  
An introduction to objective personality assessment. The student will learn basic administration, scoring procedures, and utilization of assessment results in clinical practice for various objective personality and temperament measures. Application of objective personality instruments and computer scoring will be explored. *Prerequi-*









belief systems of the major racial, ethnic, and national groups found in today's classrooms. Specifically methods, materials and evaluation instruments and techniques which would maximize learning efficiency for these culturally diverse groups will be introduced.

## **GENERAL SCIENCE**

<b>SOC</b>	<b>6631</b>	<b>Social Deviation (3)</b> A graduate seminar which focuses upon the social and cultural factors as they apply to deviance. The work of other disciplines in the study of deviation is reviewed and evaluated. Special emphasis is given to the different sociological approaches in the area of deviance; selected types of social deviation are examined and analyzed through these different sociological perspectives. The course is structured as a service course that has a pragmatic and interdisciplinary appeal to people in education, business, counseling, criminal justice and agency work, as well as to those who wish to further their training in sociology.	<b>SFM</b>	<b>6617</b>	<b>Readings in Sport and Fitness Management (3)</b> An independent exploration of the literature and current research in sport and fitness management. A grade of "B" or better is required.
			<b>SFM</b>	<b>6620</b>	<b>Physical Fitness: A Critical Analysis (3)</b> The course involves an examination of the effects of physical activity on various fitness and health parameters by reviewing current research studies. Students will be introduced to methods of evaluating one's fitness level and the proper prescription guidelines.
<b>SOC</b>	<b>6650</b>	<b>Educational Sociology (3)</b> The school is one of the chief agencies of socialization and a requisite of social order in complex societies. Special consideration is given to the works of anthropologists.	<b>SFM</b>	<b>6623</b>	<b>The Biomechanics of Sports Techniques (3)</b> The course explores the basic biomechanical concepts and their application in the analysis of sport technique.
			<b>SFM</b>	<b>6625 6626 6627</b>	<b>Specialized Study in SFM (1-3)</b> Study of problem or problems using research technique. Selection of problem must be approved by student's adviser, instructor under whom the study is to be made, and the appropriate Director of Graduate Studies. The study should contribute to the student's program. Preparation of a scholarly paper is required and may involve an oral defense. Total credit for any combination of enrollments in these courses may not exceed six semester hours. A specialized study may be substituted for a required course only once in a student's program. See semester hour limits listed under Course Restrictions in General Regulations section.
<hr/> <b>SPORT AND FITNESS MANAGEMENT</b> <hr/>					
<b>SFM</b>	<b>6600</b>	<b>Foundations of Sport &amp; Fitness Management (3)</b> To introduce graduate students to the field of sport management. The course will discuss various topics related to sport management and the various sport related fields. The course will serve as an introductory course for all students in the M.S. in SFM program and will be taken the first semester of graduate school in order to serve as an introductory course for all students, especially those with no prior knowledge of the field of SFM.	<b>SFM</b>	<b>6632</b>	<b>Critical Issues in Sport and Fitness Management (3)</b>
<b>SFM</b>	<b>6604</b>	<b>Measurement and Evaluation in Sport &amp; Fitness Management (3)</b> The course discusses the proper selection and application of tests and measurements in sport and fitness management. Practical and economical tests used by the sport and fitness managers will be examined.			
<b>SFM</b>	<b>6610</b>	<b>Physical Education, Sport and the Law (3)</b> The course is designed to provide students an awareness and understanding of basic legal responsibilities of sport managers and coaches.			
<b>SFM</b>	<b>6615</b>	<b>Sport Administration (3)</b> The study of the basic concepts, theories and organization of administration including financial management as applied to sport, physical education, recreation, and intramurals.			
<b>SFM</b>	<b>6616</b>	<b>Sport Finance (3)</b> This course is designed to provide students with information concerning advanced theory in finance, accounting, and managerial control of budgets.			

all causes - from diseases such as cardiovascular diseases, non insulin dependent diabetes mellitus and colon cancer, and from conditions such as obesity and high blood pressure.

**SFM 6671 Exercise Through the Lifespan (3)**





		on property transactions. This course covers the major tax doctrines applicable to the taxation of individuals. This course addresses includible and excludible items of income and deductions allowed in calculating taxable income. The course requires the writing of a tax research paper, which would be suitable for submission to a high quality professional tax journal. <i>Prerequisite or co-requisite: TAX 6684</i>		
<b>TAX</b>	<b>6686</b>	<b>Estate and Gift Taxation (3)</b> This course covers the federal taxation of estates and gifts and provides an introduction to the federal income taxation of estates and trusts. This course will have a tax planning focus. <i>Prerequisite or Co-requisite: TAX 6684</i>	<b>TAX</b>	<b>6688</b>
				<b>Taxation of Corporations and Shareholders (3)</b> The course is a study of the federal taxation of corporations and shareholders. The course covers the tax aspects of forming a corporation, operating a corporation, distributions in respect of stock, redemptions of stock, and corporate liquidations. The course requires the writing of a tax research paper, which would be suitable for submission to a high quality professional tax journal. <i>Prerequisite or co-requisite: TAX 6684</i>
<b>TAX</b>	<b>6687</b>	<b>Tax Practice and Procedure (3)</b> This course is a study of the Internal Revenue Service (IRS) tax assessment and collection process, including the examination of tax returns and the appeals process. The course covers the statutes of limitation on assessment, collection and refund claims. The course explains the legal and ethical requirements for practice before the IRS and the civil and criminal penalties that may be assessed. The course requires the preparation of a sample protest letter for a conference with the IRS Appeals Division. <i>Prerequisite or co-requisite: TAX 6684</i>	<b>TAX</b>	<b>6689</b>
				<b>Taxation of Partnerships and Partners (3)</b> The course is a study of the taxation of partnerships and partners. The course covers the tax aspects of acquiring a partnership interest, the partner's share of partnership income or loss, distributions of partnership assets and calculation of a partner's basis in the partnership. The course requires the writing of a tax research paper, which would be suitable for submission to a high quality professional tax journal. <i>Prerequisite or co-requisite: TAX 6684</i>
			<b>TAX</b>	<b>6690</b>
				<b>State and Local Taxation (3)</b> The course is a study of state and local taxation. The course covers the tax aspects of state income tax, state and local sales and use tax, state franchise tax, and state gift and inheritance tax. <i>Prerequisite or co-requisite: TAX 6684</i>