COURSE DESCRIPTIONS

Single numerals within parentheses reflect course credit hours. Numerals within parentheses separated by a dash reflect credit hours followed by contact hours. For more information students may contact their academic advisers.

ACCOUNTING COURSES (ACT)

ACT 2291 **Principles of Accounting I (3)**
Modern financial accounting theory and practices applied to sole proprietorships, partnerships, and corporations. All Students must complete this course with a grade of C or better.

ACT 2292 **Principles of Accounting II (3)**
Modern financial and managerial accounting theory and practices applied to an organization's liabilities, cash flows, planning, budgeting, and control. All Students must complete this course with a grade of C or better.
Prerequisite: ACT 2291.

ACT 3355 **Internal Auditing (3)**
Internal auditing theory as contained in official pronouncement (IIASB, COSO, COBIT, Sarbanes-Oxley). Emphasis will be placed on material required for the CPA exam as it relates to professional ethics, audit engagement procedures, internal control, audit sampling, evidence gathering and auditor's reports.
Prerequisites: ACT 2292.

ACT 3357 **Financial Reporting & Analysis I (3)**
Study of financial accounting concepts and principles related to financial reporting emphasizing income measurement and accounting for assets. Accounting majors must complete this course with a grade of C or better.
Prerequisites: ACT 2292.

ACT 3358 **Financial Reporting & Analysis II (3)**
Study of accounting concepts and principles related to financial reporting of long-term debt, owners' equity and other special items. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3357.

ACT 3360 **Entrepreneurial Accounting (3)**
This course covers small business accounting basics that assist business owners in making business decisions based on accounting information. It emphasizes the triple bottom line reporting that refers to reporting on a company's economic, social, and environmental performance.
Prerequisite: ACT 2292, MGT 4475.

ACT 3365 **Corporate Financial Reporting (3)**
An analysis of the financial reporting issues faced by managers, including preparing, understanding, and analyzing financial reports.
Prerequisites: ACT 2292.

ACT 3391 **Intermediate Accounting I (3)**
Theory and applications of assets, liabilities, and owners' equity, revenues, expenses, and analytical process. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 2292.

ACT 3392 **Intermediate Accounting II (3)**
Theory and applications of assets, liabilities, and owners' equity, pensions, leases, earnings per share, and analytical process. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3391.

ACT 3394 **Governmental Accounting (3)**
Analysis of governmental and not-for-profit accounting issues including the preparation and use of budgets, records and statements. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 2292.

ACT 3395 **Managerial/Cost Accounting I (3)**
An analysis of issues dealing with cost accounting and cost management in the global economy from the viewpoint of management, including calculating product costs and period expenses, cost systems for accumulating and managing costs, analyzing cost behavior for tactical decisions, introduction to activity-based costing, ethical principles for management accountants, measuring the costs of quality, and preparing the master budget. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 2292.

ACT 3396 **Accounting Information Systems (3)**
Principles underlying establishment of complete accounting systems; applications to typical business organization; emphasis on the functions of control and protection. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 2292.

ACT 4435 **International Accounting (3)**
An overview of emerging issues related to international accounting and reporting of financial information across national boundaries. The course will address topics such as accounting and auditing standards, disclosure practices, and financial reporting in a global business environment. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 2292.

ACT 4450 **Auditing Concepts (3)**
Study of auditing concepts related to professional ethics, audit engagement, internal control, audit sampling, evidence gathering and auditors' reports. Accounting majors must complete this course with a C or better.
Prerequisite: ACT 3358.
Prerequisite or Co-requisite: ACT 3355.

ACT 4451 **Introduction of Taxation (3)**
Study of federal tax laws and regulations for individuals and business entities, with an emphasis on components of income, exclusions, allowable expenses, losses and owner distributions. Tax implications of property transactions to both individuals and business entities, and choice of business entity will be introduced. Accounting majors must complete this course with a grade of C or better.
Prerequisites: ACT 2292.

ACT 4480 **Professional Development—Public Accounting (1)**
Examination of professional and pre-professional requirements for entry into the public accounting profession. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3391, ACT 3392, ACT 3394, ACT 3396, ACT 4494. Prerequisites or Co- requisites: ACT 3395, ACT 4491, ACT 4495, ACT 4497.

ACT 4481 **Professional Development – Forensic Accounting (1)**
Analysis of current developments and requirements for entry into the forensic accounting profession. Accounting majors must complete this course with

a grade of C or better.
Prerequisites: ACT 3358, ACT 3394, ACT 3396, ACT 4451, LAW 4425, ACT 4450.
Prerequisites or Co-requisites: ACT 4498.

ACT 4482 **Professional Development – Management Accounting (1)**
Analysis of current developments and requirements for entry into the management accounting profession. Accounting majors must complete this course with a grade of C or better.
Prerequisites: ACT 3358, ACT 3355, ACT 3395, ACT 3396, ACT 4451, ACT 4450.
Prerequisites or Co-requisites: ACT 4496.

ACT 4485 **Fraud Examination I (3)**
The study of legal issues related to fraud prevention, detection and investigation. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 4450.

ACT 4491 **Advanced Accounting (3)**
An analysis of the theory and applications of accounting for business combinations, partnerships, and foreign currency transactions and translations. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3392.

ACT 4492 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course.

ACT 4493 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course. Also see index for "Independent Study and Research." Consult Certified Public Accountant Examination requirements prior to enrolling in this course. Accounting majors must complete this course with a grade of C or better.

ACT 4494 **Income Tax Accounting I (3)**
Analysis of the federal income tax laws and regulations for individual taxpayers. Primary emphasis is on the individual components of personal and business income and the allowable deductions. The taxation of gains and losses on property and capital-asset transactions will be introduced. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 2292.

ACT 4495 **Income Tax Accounting II (3)**
Analysis of federal income tax laws and regulations for partnerships, corporations, estates and fiduciaries. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 4494.

ACT 4496 **Managerial/Cost Accounting II (3)**
In depth analysis of advanced cost accounting issues from the viewpoint of management, including cost management systems, target costing, life cycle costing, and measures of performance, including the balanced scorecard. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3358, ACT 3355, ACT 3395.

ACT 4497 **Auditing (3)**
Auditing theory as contained in official pronouncements. Emphasis will be placed on material required for the CPA exam as it relates to professional ethics, audit engagement, internal control, audit sampling, evidence gathering and auditors' reports. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3392.

ACT 4498 **Fraud Examination II (3)**
Auditing theory and procedures as applied to fraud prevention, detection and investigation. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 4485.

ACT 4499 **Accounting Internship (1 to 3 credit hours per course per semester)**
Internship in local, regional or national firm. Requires junior or senior standing and individual approval for the internship program. See "Internship Program" for additional requirements. Accounting majors must complete this course with a grade of C or better.
Prerequisite: ACT 3392.

ADULT EDUCATION (ADE)

ADE 3305 **Teaching Adults with Technology (3)**
Instructional technology is becoming increasingly an important part of adult learner education. Adult learners need to utilize current and emerging technologies to perform required career duties and succeed as professionals in the workforce. Technology enhances the learning of adults, improves their motivation, and engages them in various activities. It also increases accessibility to individualized learning, and improves communication with coworkers and supervisors. This course focuses on the ideas and skills to integrate technology efficiently into curriculum and its utilization for effective teaching.

ADE 3310 **Teaching Adult Learners (3)**
This course features practical strategies and instructional techniques for teaching adult learners. Topics include characteristics of adult learners, adult learning/teaching styles, overcoming resistance to learning, promoting self-learning in adults, and dealing with diversity in the adult learning environment.

ADE 3320 **Assessing Adult Learners (3)**
This course is designed to assist participants with the development of knowledge and skills that can be applied to successful student outcomes assessment. Specifically, this course is an introduction to various methods that measure students' knowledge and skills. Emphasis is placed on constructing and validating various types of measurement instruments and performance assessments including their validity and reliability.

ADE 3346 **Educational Psychology in Adult Learning (3)**
This course is a study of the distinctive characteristics of adult development and their interaction with the cognitive, social, and psychological characteristics of adult learning. Emphasis will be given to understanding the nature of adult learners and their learning processes, principles of motivation and effective facilitation geared toward adult learners, and social and cultural influences on adult learning.

ADE 4400 **Classroom Management in Adult Learning (3)**
This course will provide an introduction to managing various instructional environments including how to create a safe learning environment, design classroom and laboratory procedures, and develop an effective classroom management plan. Instruction also includes how to implement organizational systems to manage work-based learning experiences, student records, learning experiences, supplies, equipment, tools, finances, and facilities.

ADE 4410 **Professional Education Communication (Student Counseling) (3)**
This course is designed to develop communication

skills required for effective occupational educators working with adults in a variety of postsecondary, workforce development, and military education settings. The course focuses on information and the communication process. Emphasis will be placed on verbal, non-verbal, interpersonal, and written communication. Special attention will be given to working with diverse populations.

ADE 4420 **History and Development of the Workforce (3)**
This course is a study of the origins of adult career education and training in the United States. Students will learn about the pioneers in this field who built the theoretical concepts over time. Those concepts are examined through the lenses of:

- Time and changes in the workplace during the agrarian and craftsman period, early industrialization, the post industrialization period, to current service and technology industries;
- The impact of world events, and the influence of government legislation; and
- The influence of women, minorities, and special needs employees in the workplace.

The course will provide the student a greater appreciation of the breadth and complexity of adult education by focusing on an area often overlooked—Career and Technical Education.

ADVERTISING COURSES (ADJ)

ADJ 2220 **Introduction to Advertising (3)**
An introduction to the principles and background of advertising, advertising campaigns and the different types of advertising. Special emphasis is given to social, legal, planning and creative aspects.

ADJ 3322 **Advertising Copywriting (3)**
The principles of advertising psychology studied in relation to the techniques for writing effective copy; approximately half of the course is devoted to practice in writing effective advertisements.
Prerequisites: ADJ 2220 or PRJ 2230, JRN 1102 or PRJ 3375 or special permission from the director of the School of Journalism.

ADJ 3350 **Advertising Sales (3)**
Discussion and practical experience in servicing accounts and selling advertisements. Emphasis on building client relationships and delivering effective sales presentations.
Prerequisite: ADJ 2220.

ADJ 4451 **Advertising Media Planning (3)**
This course explores researching media options, developing a media plan, and learning how to implement the plan**.** It includes identifying target audiences, the media they use, the cost efficiency of the media, and determining the costs of the total plan.

AVIATION FLIGHT COURSES

AFT 2200 **Unmanned Aerial Systems Overview (3)**
The purpose of this course is to provide the student with an overview of the Spectrum of UAS design, operations, and employment considerations. The student will study the developmental history of UAS systems. UAS operations within the National Airspace System and existing and proposed Federal Aviation Administration regulations will be extensively covered. Students will understand the basic physics of atmospheric flight.
Pre-requisite: Approval of Chief Flight Officer

AFT 2202 **Principles of UAS Design (3)**
An in-depth look at military and civilian UAS designs. The Northrop-Grumman Global Hawk, General Atomics Predator, micro-UAVs and U.S. Army small reconnaissance vehicles will be featured.

AFT 2204 **Principles of UAS Sensors & Sensing Systems (3)**
Course will cover the design considerations, packaging, and employment of various sensors and systems for UAS. Electro-optical, Forward Looking Infrared, low light, electronic sensing, and other remote sensors will be featured. Systems Integration Factors in Platform Selection is included.

AFT 2206 **Human Factors in UAS Operations & Accidents (3)**
The physical, emotional, and environmental aspects of military and civilian UAS operations will be analyzed. The impact of human error including workload, fatigue, poor situational awareness, inadequate training, lack of crew coordination and poor ergonomic design on increasing UAS accident rates will be discussed. The effects of the unique remote piloting environment on mental workload will be considered.

AFT 2208 **Legal & Ethical Considerations for UAS Operations (3)**
Discuss FAA guidelines and ethical issues, including international laws of war. Case studies on drone strikes, police surveillance, and other relevant topics.

AFT 2210 **Real World Applications (3)**
Using UAS technology in the real world, such as law enforcement, national security, public affairs, natural resources, forest fire detection, remote sensing, aerial surveillance, oil-gas exploration, transportation, conservation, and scientific research. Case studies in actual applications.

AFT 2212 **UAS Piloting Familiarization (3)**
This will be a laboratory split between construction and actual UAS piloting. The student will learn basic flight and mission planning techniques.
Prerequisites: AFT 2202, AFT 2210

Dual Enrollment Courses (PFT):

PFT L250 **Airplane Private Pilot Lab I (2)**
This course covers Ground School training as required by FAA regulations Part 61 for students pursuing a Private Pilot Airplane Certificate. Ground School subjects covered include airplane aerodynamics, principles of flight, airplane components and systems including power plant, electrical and aircraft instrumentation systems. Flight planning, weight and balance and use of aircraft performance charts, fuel burn rates will be covered that will allow a student to plan, file and successfully present to the instructor all skills required to conduct both local and cross country flights. Aircraft limitations, airspace, Federal Aviation Regulations, aviation weather, navigational assistants and communications procedures will also be studied. This course will develop the basic aeronautical knowledge to allow the student to take and pass the FAA required Private Pilot Airplane written exam given at the end of course. 70 hours of ground instruction will be given over the term. This course is only available to Dual Enrollment Program students.
Prerequisites: permission of department chair and chief flight officer.

PFT L252 **Airplane Private Pilot Lab II (2)**
This course will include flight training that covers aviation Fundamentals as required by FAA

Regulations Part 61 for students pursuing a Private Pilot Certificate. All knowledge gained from PFT 250 will be reviewed as part of the flight training. Topics covered include gaining proficiency in all procedures and maneuvers necessary for solo flight, hazardous flight conditions, local and cross country flights and emergency procedures. The flight portion of this course will develop requisite aeronautical skills, Knowledge and proficiency to the standard necessary to take the FAA Private Pilot Flight check with a FAA Designated Pilot Examiner. The course will consist of 45 of Dual flight Hours and 10 hours of Solo/PIC flight hours and 35 flight instructor hours for ground, pre/post flight briefings. This course is only available to Dual Enrollment Program students.

Prerequisites: permission of department chair and chief flight officer.

ANTHROPOLOGY COURSES (ANT)

ANT 2200 **Anthropology (3)**
An examination of human, physical and cultural development using evidence from archaeology, paleontology, genetics, ecology, cultural anthropology and linguistics with emphasis on the historical, structural and symbolic aspects of human culture.
This course is prerequisite for all 3300 and 4400 level courses in anthropology. This course does not count toward the 36-hour major.

ANT 3305 **Introduction to Archaeology (3)**
An examination of the methods and theory of traditional and contemporary approaches to archaeological research.

ANT 3310 **Cultural Anthropology (3)**
An anthropological examination of human cultural development and a survey of both contemporary and past human cultures. May be taken for sociology credit.

ANT 3311 **Physical Anthropology (3)**
An examination of human biological development from the beginning of mankind through the Pleistocene age using evidence from archaeology, paleontology, biology, genetics and osteology.

ANT 3312 **Field Techniques in Archaeology (3-6-9 hours)**
Instruction in survey and excavation methods and techniques used in the discipline of archaeology.

ANT 3313 **Laboratory Techniques in Archaeology (3)**
Instruction in the methods and techniques used in the curation and analysis of cultural materials recovered from archaeological investigations.

ANT 3320 **Prehistory of North American Indians (3)**
An examination of the aboriginal cultures of North American prior to the period of European contact based upon archaeological evidence.

ANT 3321 **North American Indians Since Contact (3)**
An examination of aboriginal cultures of North America from the period of European exploration, colonization, and settlement to the present using archaeological, ethnographic, and ethnological studies.

ANT 3325 **Selected Topics in Anthropology (3)**
Anthropological examination of a designated topic of special and/or current interest and importance that is generally not covered in regularly offered courses in the department.

ANT 3330 **Historical Archaeology (3)**
An examination of the historical research methods and archaeological techniques used to investigate and interpret archaeological sites dating from the historic period.

ANT 3340 **Language in Culture and Society (3)**
A sociological and anthropological examination of language from a descriptive, historical and social perspective.

ANT 3360 **Magic, Witchcraft and Religion (3)**
An anthropological examination of the role of religion and the supernatural among traditional peoples.

ANT 4410 **High Civilizations of the Old World (3)**
An anthropological examination of the sociocultural systems that formed the foundations of pre-industrial high civilizations of the Old World and a survey of past cultures that achieved this degree of development.

ANT 4411 **High Civilizations of the New World (3)**
An anthropological examination of the socio-cultural systems that formed the foundations of pre-industrial high civilizations of the New World and a survey of past cultures that achieved this degree of development.

ANT 4420 **Forensic Osteolgy (3)**
A survey of the methods used in recovering human osteological remains from field sites. It includes methods used in identifying, preserving, and recording data from human osteological remains, and the methods used in determining the cause of death, age, sex, race, and stature of individuals from human osteological remains.

ANT 4440 **Culture in the Media (3)**
This course introduces students to Anthropology by means of a focus on the connections between the media of mass communication and multiple forms of popular art and culture.

ANT 4445 **Aboriginal People of Australia (3)**
This course will focus on the ethnography of the aboriginal people of Australia. It will cover such areas of culture as kinship, political systems, social organization, religion, and the interaction between aboriginal people and the non-aboriginal people of Australia.

ANT 4450 **Anthropology of Sex and Gender (3)**
This course will focus on gender as a primary organizing principle of society and explore how these categories get created, reproduced and transformed. Topics of discussion will include the social position of women and men in the family, changing social, economic, and political ideologies with respect to gender and the construction and reproduction of gender inequality from a global perspective.

ANT 4485 **Archaeology Practicum (3 or 6)**
This course will expose students to the process of synthesis in the archaeological method. This process includes the incorporation of field and laboratory methods in archaeology towards accomplishing archaeological research projects.

ANT 4490 **Internship in Anthropology (1 – 6)**
Internship with a recognized, professional anthropology related agency in which the student is assigned specific tasks related to the field of anthropology.

ANT 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are

available in the office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research."

ANT 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Supervised study through field and laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: Junior or senior standing, with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

ANT 4499 Anthropological Theory (3)
This course will focus on the early foundations of Anthropology and a survey of the major theorists in the discipline, emphasizing those who made critical contributions influencing the four subfields of Anthropology.
Prerequisite: Senior status or permission of instructor.

ART AND DESIGN COURSES (ART)

ART 1133 Visual Arts (3)
Visual arts and their relationship to human needs and aspirations.
Note: Credit for this course may not be applied toward any program in art.

ART 1134 Honors Visual Arts (3)
Visual arts and their relationship to human needs and aspirations. Presentation of aesthetic, cultural and social issues related to art and its making.
Note: Credit for this course may not be applied toward any program in art.

ART 1145 Foundations of Form and Space (3)
Introduction to the principles, elements, and concepts of two-dimensional space.

ART 1150 Foundations of Time and Space (3)
Introduction to the principles, elements, and concepts of three- and four-dimensional space.

ART 2201 Introductory Drawing (3-5)
Introduction to drawing with emphasis on traditional rendering materials and techniques.

ART 2202 2D Studio I (3-5)
Fundamental concepts in printmaking. Basic techniques in producing black and white multiples in relief, intaglio, serigraphy and lithography.
Prerequisites: ART 1145, ART 2201.

ART 2204 3D Studio I (3-5)
Fundamental concepts in pottery and ceramics. Basic techniques in production and free form ceramics to include introduction to hand-building, wheel throwing, and glazing/firing techniques.
Prerequisites: ART 1150, ART2201.

ART 2205 3D Studio II (3-5)
Fundamental concepts in sculpture. Emphasis on traditional subtractive and additive techniques in a variety of media.
Prerequisite: ART 1150 ART 2201.

ART 2206 2D Studio II (3-5)
Fundamental concepts in painting. Basic techniques in application using transparent and opaque painting media.
Prerequisites: ART 1145, ART 2201.

ART 2208 Digital Tools (3)
Students will be introduced to microcomputer literacy, word processing, spreadsheets, database, and web-top and desktop graphic applications. Students will also learn of emerging technological advancements in art and design. The purpose of this course is to provide the students with the necessary skill set that will be used in many of the art and design courses. This is not an advanced computer applications course.

ART 2210 e-Drawing (3)
Introduction to drawing with emphasis on developing rendering skills applied to digital technology. Required for <<dti>>majors

ART 2228 Photo Studio Darkroom (3-5)
Introduction to the fundamentals photographic techniques in traditional black and white darkroom photography and contemporary digital photographic techniques and practices. Emphasis on darkroom printing, manual camera controls, compositional elements, digital technologies and photographic history.
Prerequisites: ART 1145, ART 2201 or ART 2210.

ART 2230 Color and Technology (3)
Introduction to the principles and science of color and color applications in both colorant and digital environments.
Prerequisites: ART 1145, ART 2201 or ART 2210.

ART 2250 Survey of Art History I (3)
This course examines the development of art from pre-history to the Gothic period. The sessions will focus on the various social and cultural factors that determine the uses and appearance of art at different times.

ART 2251 Survey of Art History II (3)
This course examines the development of art from the Renaissance to the Modern period. The sessions will focus on the various social and cultural factors that determine the uses and appearance of art at different times.

ART 2255 History of Photography (3)
An examination of the development of photography and its relation to the other visual arts. This course is designed to provide a brief introduction to the history of photography. It outlines major developments in photographic processes, concepts, and criticism; and it presents a selection of well-known photographic images from the 19th, 20th, and 21st centuries. The course will provide students with a basic knowledge of photographic history, theory, and criticism. It will examine how photography has both been influenced by and has also influenced other mediums. (Writing Intensive)

ART 3301 Life Drawing (3-5)
Drawing the human form with emphasis on rendering mood and expression while learning skeletal and muscular structure.
May be repeated for credit up to six hours.
Prerequisite: ART 2201.

ART 3302 History of the Arts (3)
An analysis of examples of art from diverse periods with an emphasis on trends and patterns and the interactions of art with various aspects of social, political, and intellectual developments.

ART 3308 <<dti>> Principles of Digital Design (3)
Introduction to the fundamental principles of graphic design from concept development to final execution.
Prerequisites: ART 2230.

ART 3310 <<dti>> Time Based Media (3)
Exploration of graphic design applied to multimedia. Students will learn to produce

presentations using type, imagery, and audio-visuals.
Prerequisite: ART 2230.

ART 3315 **<<dti>> Design for the Internet (3)**
Formal and practical aspects of graphic design as applied to web development, Internet communication, marketing, and advertising.
Prerequisite: ART 3310.

ART 3318 **Conceptual Drawing (3-5)**
A course in the exploration of image making that expands drawing from direct observation to a more conceptual approach.
May be repeated for credit up to six hours.
Prerequisites: ART 1145, 2201.

ART 3320 **Ancient and Medieval Art (3)**
This course will focus on the art and culture of the ancient Greek and Roman Worlds, and consider how the artistic heritage of Europe during the Medieval Era follows upon and deviates from these earlier eras. An examination of the culture and intellectual traditions of these eras will be incorporated as well, with particular focus on how culture influences the artistic traditions discussed.
Prerequisite: ART 2250.

ART 3321 **Renaissance Art History 3)**
This course will explore the visual arts of the Renaissance from the early Renaissance through to Mannerism. Attention will be paid to the Renaissance in Italy, along with issues of patronage, the socio-political and economic context of the artists, and the cultural, intellectual and religious changes occurring at this time.
Prerequisite: ART 2251.

ART 3322 **Rococo to Revolution Art History (3)**
This course will examine the visual arts from the Rococo period through to Post- Impressionism. Along the way, we will confront the debates concerning style during the Neo-classical period, the effects of the Revolutionary era and the revolt into artistic individualism during the Romantic period.
Prerequisite: ART 2251.

ART 3323 **Modern and Contemporary Art History (3)**
This course provides a detailed study of the visual arts of Europe and America from 1900 to present day. Specific attention will be paid to the changing identity of the artist, dialogues and tensions between "high" art and mass culture, and the success and failure of Modernism.
Prerequisite: ART 2251.

ART 3324 **<<dti>> Paper/Screen (3)**
Exploration of desktop and web-based publishing. Production of content, research, imagery, and development of paper and web-based publications
Prerequisite: ART 3308 or permission of department chair.

ART 3325 **Typography (3)**
A study of the history, design, and application of basic letterforms. Students will learn of hierarchy of information, typeface and type family characteristics, and grids. Both type and text will be covered.
Prerequisite: ART 2230.

ART 3326 **Digital Illustration (3)**
Student will explore the concepts and techniques necessary to create illustrations for use in print, web, and multimedia applications. Various categories of illustration will be addressed (i.e. technical illustration, editorial illustration, charts, maps, icons, and others). Students will also learn of significant illustrators and their contributions to digital image making.
Prerequisites: ART 1145, ART 2201, and ART 2230.

ART 3328 **Digital Photo Studio (3-5)**
Intermediate classroom environment based around the exploration and fundamentals of digital color photographic processes. Techniques explored are artistic aspiration, color printing, theoretical research and exploration, digital photography manipulation and editing, studio lighting, photographic history and contemporary topics.
Prerequisite: ART 1145, 2201, 2210 or 2230.

ART 3330 **2D Studio III (3-5)**
Advanced concepts in two-dimensional media. Studio focus on specific painting, and mixed media techniques.
May be repeated for credit up to six hours.
Prerequisite: ART 2206.

ART 3331 **3D Studio III (3-5)**
Advanced concepts in three-dimensional media. Studio focus on specific additive and subtractive techniques in a variety of media.
May be repeated for credit up to six hours.
Prerequisite: ART 2205.

ART 3340 **Portfolio Design (1)**
Building a successful portfolio is vitally important to the artist or graphic designer entering the workforce or graduate school. Through this course, students will develop a portfolio that expresses their innovation, mastery of skills and ability to research and complete projects.
Prerequisite: Must have completed at least 21 credit hours of major.

ART 3342 **The Business of Art/Design (1)**
Student will focus on the business aspects of being an artist/designer. Students will gain relevant marketing, entrepreneurial, collaboration, and planning proficiencies to develop a formal strategy for entering the contemporary marketplace of creative industry.
Prerequisite: Must have completed at least 21 credit hours of their major.

ART 3346 **Educational and Psychology Assessment in Fine Arts (3)**
This course provides a broad foundation in all aspects of assessment as it is applied to the P-12 music and art classroom, from learning theory to practical application of assessment techniques, data management, critical thinking, progress reporting and portfolio building. Assessment task design in the artistic response modes is covered, and a series of assessments that can be implemented in the music/art classroom are developed.

ART 3348 **Intermediate Photo Studio (3-5)**
Intermediate photography, which emphasizes a greater knowledge of digital photographic tools and introduction to video exploration. Techniques and processes explored are photography theory and research, video creation and editing, advanced digital composing and manipulation, beginning portfolio work and studio art.
Prerequisite: ART 3328.

ART 3350 **Research and Criticism (3)**
This course is a seminar that addresses the study and methodologies of art as it has been interpreted in the modern and post-modern periods. Students will acquire critical thinking skills and be able to position works of art within broader conceptual frameworks. Attention will be paid to key issues such as authorship, formalism, social art history, feminism, and post-colonial thinking must take the semester before taking ART 4499 Senior Exhibition.
Prerequisite: ART 2250, ART 2251.

ART 3355 **Graphic Design History (3)**
Survey of the history of graphic design from prehistoric visual communications to contemporary global issues.

Prerequisites: ART 2250, ART 2251.

ART 3360 **Exhibition Techniques (1)**
Student will be introduced to a wide array of techniques for exhibiting and presenting their artwork. Emphasis will be placed on the best industry standards of presenting artwork to targeted audiences including but not limited to galleries, museums, artist representatives, collectors, clients, grant sources, and graduate schools.
Prerequisites: Must have completed at least 21 credit hours of their major.

ART 3361 **Integrating Art into the Curriculum (3)**
Critical and experiential investigation of approaches for integrating visual art into the elementary curriculum.
Prerequisite: EDU 3310, PSY 3303.

ART 3375 **Special Topics in Art/Design (3)**
Examination of selected topics in art and design not included in the established curriculum. Content may be of a historical, thematic, or technological nature.
May be repeated for credit up to six hours..

ART 3380 **Travel Study in Art/Photography (3)**
Supervised investigation of photography and other art media through travel abroad or within the interior of United States.
May be repeated for credit.

ART 3390 **Seminar in Art/Design (1-3 credit hours per course per semester)**
This seminar course is a periodic supplement to the existing curriculum, allowing for timely and relevant topics or issues that are not fully covered in existing courses. Topics can be practices or theories related to the making of art and design or the education of such.

ART 4424 **<<dti>> Design Studio (3)**
In-depth graphic design studio/lab working with actual clients and producing design solutions for industry. Student must demonstrate proficiency with digital technology systems and have a portfolio design. This course will facilitate the comprehensive assessment of student competencies in design-portfolio review, core curriculum exam and/or the taking of a standardized art exam, a requirement of all <<dit>> majors.
May be repeated for credit up to six hours.
Prerequisite: ART 3315 and ART 3324 or permission from the department chair.

ART 4428 **Advanced Photo Studio (3-5)**
Advanced photography classroom emphasizes the preparation and completion of a photographic portfolio and the function of photography online. Students will explore projects established in large format film processing, scanning and printing, advanced theoretical research, historical and contemporary photograph research, continued video creation and editing and alternative printing processes.
Prerequisite: ART 3328.

ART 4430 **2D Studio IV (3-5)**
Content and issues in two-dimensional media on the development of personal artistic expression. Advanced studio practices in printmaking and mixed media techniques with a focus.
May be repeated for credit up to six hours.
Prerequisite: ART 2202.

ART 4431 **3D Studio IV (3-5)**
Content and issues in three-dimensional media. Advanced studio practices in ceramics with a focus on the development of personal artistic expression.
May be repeated for credit up to six hours.
Prerequisite: ART 2204.

ART 4435 **Collaborative Studio (3)**
An integrative art studio experience joining students from each concentration area. Thematic, supervised exploration of a chosen medium. This course will facilitate the comprehensive assessment of student competencies in art portfolio review, core curriculum exam and/or the taking of a standardized art exam, a requirement of all art majors. Prerequisite: Must be taken upon completion of the twelve hours concentration or have approval of the department chair.
May be repeated for credit up to six hours.

ART 4450 **Design for the Internet II (3)**
A continuing study of "Design for the Internet". New trends in the designs and technologies of web-based visual communication will be discussed and explored. Students will not only broaden their understanding of designing for web top but will explore development concepts such as usability, functionality, modality, and accessibility. Students will also concentrate on the importance of web standards and best practices.
Prerequisite: ART 3315.

ART 4472 **Internship in Art Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP; Co-requisite: IED 4454 Internship Seminar for Interdisciplinary Education.

ART 4481 **Methods and Materials for the Art Teacher (3)**
Teaching methods, selection, organization, and use of art materials.
Prerequisite: ART 3361 and admission to TEP.

ART 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

ART 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

ART 4496 **Internship (3 or 6 credit hours)**
Experiential learning in the context of an art- or design-related profession. Must be approved by the department chair and cooperating host organization or business.
May be repeated for credit up to nine hours.

ART 4499 **Thesis Exhibition (3)**
Requirement for all graduating art or design majors in a comprehensive program of study. Production of a body of work related to their area of concentration and the production of a written manifesto and statement. All students in the BFA and <<dti>>programs must take this course in one of their last two semesters prior to graduation. This class is not offered in the Summer semester.
Prerequisite: ART 3350.

AIR FORCE ROTC/AEROSPACE COURSES (AS)

AS 1112 **The Foundations of the United States Air Force 1 (1)**
Is the first of two courses designed to introduce students to the United States Air Force and

provides an overview of the basic characteristics, missions, and organization of the Air Force.
Co-requisite: AS L112.

AS L112 **Leadership Laboratory I (2)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 1112 course by providing cadets with advanced leadership experiences, giving students the opportunity to apply the leadership and management principles.
Co-requisite: AS 1112.

AS 1113 **The Foundations of the United States Air Force II (1)**
Is the second of two courses designed to introduce students to the United States Air Force and provides an overview of the basic characteristics, missions, and organization of the Air Force.
Prerequisite: AS 1112.
Co-requisite: AS L113.

AS L113 **Leadership Laboratory II (2)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 1113 course by providing cadets with advanced leadership experiences, giving students the opportunity to apply the leadership and management principles.
Prerequisite: AS L112.
Co-requisite: AS 1113.

AS 2212 **The Evolution of the USAF Air and Space Power I (1)**
The first of two courses featuring topics on Air Force heritage and leaders; introduction to air power through examination of the Air Force Core Functions, and continued application of communication skills. Its purpose is to instill an appreciation of the development and employment of air power and to motivate sophomore students to transition from AFROTC cadet to AFROTC officer candidate.
Prerequisite: AS 1113.
Co-requisite: AS L212.

AS L212 **Leadership Laboratory I (2)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 2212 course by providing cadets with advanced leadership experiences, giving students the opportunity to apply the leadership and management principles.
Prerequisite: AS L113.
Co-requisite: AS 2212.

AS 2213 **The Evolution of the USAF Air and Space Power II (1)**
The second of two courses featuring topics on Air Force heritage and leaders; introduction to air power through examination of the Air Force Core Functions, and continued application of communication skills. Its purpose is to instill an appreciation of the development and employment of air power and to motivate sophomore students to transition from AFROTC cadet to AFROTC officer candidate.
Prerequisite: AS 2212.
Co-requisite: AS L213.

AS L213 **Leadership Laboratory II (2)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 2213 course by providing cadets with advanced leadership experiences, giving students the opportunity to apply the leadership and management principles.
Prerequisite: AS L212.
Co-requisite: AS 2213.

AS 3312 **Air Force Leadership Studies I (3)**
The first of two courses that teaches cadets advanced skills and knowledge in management and leadership. Special emphasis is placed on enhancing leadership skills. Cadets have an opportunity to try out these leadership and management techniques in a supervised environment as juniors and seniors.
Prerequisite: AS 2213.
Co-requisite: AS L312.

AS L312 **Leadership Laboratory I (1)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 3312 course by providing cadets with advanced leadership experiences in officer-type activities thus giving students the opportunity to apply leadership and management principles.
Co-requisite: AS 3312.

AS 3313 **Air Force Leadership Studies II (3)**
The second of two courses that teaches cadets advanced skills and knowledge in management and leadership. Special emphasis is placed on enhancing leadership skills. Cadets have an opportunity to try out these leadership and management techniques in a supervised environment as juniors and seniors.
Prerequisite: AS 2212.
Co-requisite: AS L313.

AS L313 **Leadership Laboratory II (1)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 3313 course by providing cadets with advanced leadership experiences in officer-type activities thus giving students the opportunity to apply leadership and management principles.
Prerequisites: AS 3312/L312.
Co-requisite: AS 3313.

AS 4412 **National Security Affairs/Preparation for Active Duty I (3)**
The first of two courses designed for college seniors and gives them the foundation to understand their role as military officers in American society. It is an overview of the complex social and political issues facing the military profession and requires a measure of sophistication commensurate with the senior college level.
Prerequisite: AS 3313.
Co-requisite: AS L412.

AS L412 **Leadership Laboratory I (1)**
Leadership laboratory is mandatory for AFROTC cadets and it complements the AS 4412 course by providing cadets with advanced leadership experiences, giving students the opportunity to apply the leadership and management principles.
Prerequisites: AS 3313/L313.
Co-requisite: AS 4412.

AS 4413 **National Security Affairs/Preparation for Active Duty II (3)**
The second of two courses designed for college seniors and gives them the foundation to understand their role as military officers in American society. It is an overview of the complex social and political Issues facing the military profession and requires a measure of sophistication commensurate with the senior college level.
Prerequisite: AS 4412.
Co-requisite: AS L413.

AS L413 **Leadership Laboratory II (1)**
Leadership laboratory is mandatory for AFROTC cadets, and it complements the AS 4413 course by providing cadets with advanced leadership experiences, giving students the opportunity to apply the leadership and management principles.
Prerequisites: AS 4412/L412.
Co-requisite: AS 4413.

AMERICAN SIGN LANGUAGE COURSES (ASL)

ASL 1141 **American Sign Language I (3)**
Initial course in the four-course sign language developmental sequence which exposes students to American Sign Language at a Survival Level and will increase their knowledge of Deaf Culture. The

course is designed for students who have had no previous knowledge of sign language.

ASL 1142 **American Sign Language II (3)**
The second course in the ASL sequence in which students continue to develop ASL proficiencies in lexicon, sign production, use of sentence types, and grammatical features such as use of classifiers, use of space to compare and contract, mouth morphemes, and locatives. Outside interaction with the deaf community is required.
Prerequisite: ASL 1141 or Survival Level on the SCPI or permission of instructor.

ASL 2210 **Deaf Culture and Community**
An overview of the physical, educational, social, linguistic, and cultural implications of the Deaf community in America with an emphasis on the central role that ASL plays on the lives of Deaf individuals. The objective of this course is to introduce students to the culture of the Deaf community and the role of ASL in that community. Students will be exposed to current educational and vocational programs, legislation, technology, and other issues relating to the Deaf community.

ASL 2241 **American Sign Language III (3)**
This course builds on skills and knowledge acquired in ASL I and II and focuses on building narrative skills. Students move from an informal to more formal style of signing. Interacting with the deaf community is a required activity. Students should be able to demonstrate intermediate to intermediate plus level conversational skills.
Prerequisite: ASL 1142 or Intermediate on the SCP or permission of instructor.

ASL 2242 **American Sign Language IV (3)**
This course builds on the previous ASL courses by increasing expressive and receptive skills with exposure to a wide variety of signing styles. Students will begin text analysis, be introduced to deaf literature, story-telling and signed poetry.
Prerequisite: ASL 2241 or Intermediate on the SCPI or permission of instructor.

ASL 2250 **Advanced American Sign Language (3)**
This course provides students with opportunities to expand expressive and receptive use of ASL, including a variety of special topics at an advanced level. Special emphasis is on increasing spatial use, ASL fluency and nonmanual behaviors. Students are given opportunities to increase expressive and receptive skills through activities and class discussions, including a variety of special topics at an advanced level. Special emphasis is on understanding the importance of spatialization, nonmanual grammar and morphology, and discourse features of ASL such as register and academic language use.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, or ASL 2242 with a grade of C or better, or permission of ITP Academic Advisor.

ASL 2252 **American Sign Language Fingerspelling (3)**
This course is taught using American Sign Language. The course will introduce the students to the American manual alphabet of fingerspelling and its use within American Sign Language. The students will be given opportunities to demonstrate increased ability to accurately produce and comprehend ASL number systems and fingerspelling uses. Extensive drills and practice in both receptive and expressive use will be implemented.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, or ASL 2242 with a grade of C or better, or permission of ITP Academic Advisor.

ATHLETIC TRAINING COURSES (AT)

AT 1101 **Orientation to Athletic Training Program (1)**
Acquaints the Pre-Athletic Training Education student with the six cognitive domains of athletic training education and the athletic training education competencies.

AT 2201 **Clinical Experiences in Athletic Training I (1)**
Places the entry-level athletic training student in a variety of clinical settings. Laboratory and clinical experiences of AT 2201 will consist of basic clinical skills using a hands-on-approach application of competencies and proficiencies that are introduced in the didactic setting.
Prerequisite: Acceptance into ATEP (first-year status).
Co-requisite: AT 3395.

AT 2202 **Clinical Experiences in Athletic Training II (1)**
Places the entry-level athletic training student in a variety of clinical settings including but not limited to college/university, general medical, and clinic/outreach. Laboratory and clinical experiences in AT 2202 will consist of basic clinical skills using a hands-on-approach application of competencies and proficiencies that were learned in AT 2201 and skills introduced in AT 2202.
Prerequisite: Acceptance into ATEP (first-year status), AT 2201.

AT 3301 **Clinical Experiences in Athletic Training III (2)**
Places the entry-level athletic training student in a variety of clinical settings including but not limited to college/university, general medical, and clinic/outreach. Laboratory and clinical experiences in AT 3301 will consist of basic clinical skills using a hands-on-approach application of competencies and proficiencies that were learned in previous clinical experience courses and skills introduced in AT 3301.
Prerequisite: Acceptance into ATEP,AT 2202.

AT 3302 **Clinical Experiences in Athletic Training IV (2)**
Places the entry-level athletic training student in a variety of clinical settings including but not limited to college/university, general medical, and clinic/outreach. Laboratory and clinical experiences in AT 3302 will consist of basic clinical skills using a hands-on-approach application of competencies and proficiencies that were learned in previous clinical experiences and skills introduced in AT 3302.
Prerequisite: Acceptance into ATEP, AT 3301.

AT 3394 **Lifting Techniques for Conditioning and Rehabilitative Exercise (1)**
Students will gain knowledge of spotting techniques, safety techniques, exercises, periodization and development of strength and conditioning programs on the physically active.
Prerequisite: AT 4447.

AT 3395 **Care and Prevention of Athletic Injuries and Illnesses I (3)**
Acquaints the entry-level athletic training student with athletic training competencies related to risk management, injury prevention, assessment and evaluation, psycho-social intervention and referral and health care administration.
Prerequisite: Acceptance into ATEP.

AT L395 **Care and Prevention of Athletic Injuries and Illnesses Lab (1)**
Acquaints the entry-level athletic training student with athletic training competencies in the clinical proficiencies, risk management, injury prevention, assessment and evaluation, psychosocial intervention and referral, and health care administration.
Prerequisite: Acceptance into ATEP.
Co-requisite: AT 3395.

AT 3396 **Evaluation of Athletic Injuries and Illnesses I (3)**
Acquaints the entry-level athletic training student with athletic training competencies as they relate to acute care of injuries and illnesses to the lower extremity of the human body.
Prerequisite: Acceptance into ATEP.

AT L396 **Evaluation of Athletic Injuries and Illnesses I Lab (1)**
Acquaints the entry-level athletic training student with athletic training competencies in the clinical proficiencies of injury prevention, assessment and evaluation, and acute care of injuries and illnesses as they relate to the lower extremity.
Co-requisite: AT 3396.

AT 3397 **Evaluation of Athletic Injuries and Illnesses II (3)**
Acquaints the entry-level athletic training student with athletic training competencies as they relate to injury prevention, assessment and evaluation, and acute care of injuries and illnesses to the upper extremity.
Prerequisites: AT 3396/L396.

AT L397 **Evaluation of Athletic Injuries and Illnesses II Lab (1)**
Acquaints the entry-level athletic training student with the knowledge of athletic training and competencies in the clinical proficiencies of injury prevention, assessment and evaluation, acute care of injuries and illnesses to the upper extremity.
Prerequisites: AT 3396/L396.
Co-requisite: AT 3397.

AT 3398 **Organization and Administration for Athletic Trainers (3)**
Students are introduced to management techniques, professional practice, insurance and health care administration that are encountered in athletic training.
Prerequisite: AT 3397/L397.

AT 3399 **General Medical Conditions Seminar (3)**
A specialized course of general medical conditions designed for entry-level athletic training students with lectures made by various health professionals focusing on pathology and pharmacology.

AT 4401 **Clinical Experiences in Athletic Training V (3)**
Places the entry level athletic training student in a variety of clinical settings. Clinical Experience will apply clinical skills learned in all previous clinical courses in addition to the advancement and progression of competencies and proficiencies learned in this course.
Prerequisites: Acceptance into ATEP, AT 3302.

AT 4402 **Athletic Training Field Experience (12)**
Acquaints the entry-level athletic training student with the opportunity to gain practical experience within a clinical and or traditional setting. The student will apply didactic academic preparation at their chosen professional setting.
Prerequisite: AT 4401.

AT 4447 **Therapeutic Modalities (3)**
Acquaints the entry-level athletic training student with athletic training competencies as they relate to the use of therapeutic modalities.
Prerequisites: AT 3397/L397.

AT L447 **Therapeutic Modalities Lab (1)**
Lab accompanying AT 4447. Students will learn psychomotor skills through the clinical application of therapeutic modalities on the physically active.
Co-requisite: AT 4447.

AT 4448 **Therapeutic Exercises (3)**
Acquaints the entry-level athletic training student with the knowledge of the athletic training competencies as they relate to the use of therapeutic exercises.
Prerequisites: AT 3301, 4447.

AT L448 **Therapeutic Exercises Lab (1)**
Lab accompanying AT 4448. Students will learn psychomotor skills through the clinical application of therapeutic exercise on the physically active.
Co-requisite: AT 4448.

BIOLOGY COURSES (BIO)

BIO 1100 **Principles of Biology (3)**
Biological principles including the evolution of life, cell structure and function, human biology, cell reproduction, heredity, and ecology. Credit for this non-majors course cannot be applied toward any curriculum in biology.
Co-requisite: BIO L100.

BIO L100 **Principles of Biology Lab (1-2)**
Labs include coverage of scientific methods, measurements, microscopy, cell structure, human biology, cell reproduction, heredity, and ecology. Credit for this non-majors course cannot be applied toward any curriculum in biology.
Co-requisite: BIO 1100.

BIO 1101 **Organismal Biology (3)**
Biological concepts and life processes of protists, fungi, plants, and animals.
Prerequisites: BIO 1100/L100.
Co-requisite: BIO L101.

BIO L101 **Organismal Biology Lab (1-2)**
Survey of organisms from selected phyla, including anatomy, phylogeny, and life histories.
Prerequisites: BIO 1100/L100.
Co-requisite: BIO 1101.

BIO 1120 **Survey of Environmental Sciences (3)**
This course is an overview of the Earth's abiotic and biotic systems with an emphasis on how human activity influences these systems. Included in this course will be lectures on ecology, environmental health, natural resources, energy, pollution, and environmental monitoring. If a student drops the lab (BIO L120), then the student MUST also drop the lecture (BIO 1120).
Co-requisite: BIO L120.

BIO L120 **Survey of Environmental Sciences Lab (1)**
This course includes Lab/Field-oriented experiences designed to enhance understanding of environmental concepts and issues. If a student drops the lecture (BIO 1120), then the student MUST also drop the lab (BIO L120).
Co-requisite: BIO 1120.

BIO 2205 **Career Opportunities in Medicine and Allied Health Professions (1)**
An introduction to medicine and allied health professions, including academic requirements, job opportunities, and future trends. Professionals from different fields will discuss their specialties to provide students with realistic perspectives.

BIO 2220 **Principles of Cell Biology (3)**
Introduction to cell structure and function with emphasis on organelle structure, metabolism, cell cycle, genetics, and gene function.
Prerequisites: BIO 1100/L100.
Co-requisite: BIO L220. Credit will not be given toward major/program if taken at same time or after BIO 3320 and BIO 4482.

BIO L220 **Principles of Cell Biology Lab (1)**
Laboratory studies of cell biology with an emphasis on cell structure, function, experimental techniques, and data collection and analyses.
Prerequisite: BIO 1100/L100.
Co-requisite: BIO 2220. Credit will not be given toward major/program if taken at same time or after BIO L320 and BIO L482.

BIO 2229 **General Ecology (3)**
The relationships of living organisms to one another and to the nonliving environment. Basic ecological concepts with the emphasis on bioenergetics, limiting factors, adaptation to a changing environment, the niche, ecological pyramids, and succession.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO L229.

BIO L229 **General Ecology Lab (1-3)**
Introduction to the terminology, procedures and equipment for sampling biotic and abiotic components of ecosystems, the functional and dynamic features of ecosystems, and biotic interactions.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO 2229.

BIO 3307 **Invertebrate Zoology (3)**
Major and minor phyla of invertebrates with emphasis on anatomy, classification, life histories, and phylogeny.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO L307.

BIO L307 **Invertebrate Zoology Lab (1-3)**
Anatomy, classification, and life histories of invertebrates.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO 3307.

BIO 3320 **Genetics (3)**
Principles of heredity, from basic Mendelian concepts through molecular genetics.
Prerequisites: BIO 2220/L220 and CHM 1143/ L143.
Co-requisite: BIO L320.

BIO L320 **Genetics Lab (1-3)**
Basic laboratory techniques in genetics, including the genetics of common laboratory organisms.
Prerequisites: BIO 2220/L220 and CHM 1143/ L143.
Co-requisite: BIO 3320.

BIO 3325 **Plant Form and Function (3)**
The development, structure, and function of plant tissues and organs. Primary emphasis on anatomical, morphological, and physiological features of angiosperms.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO L325.

BIO L325 **Plant Form and Function Lab (1-3)**
The development, structure, and function of plant tissues and organs, with the primary emphasis on structures.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO 3325.

BIO 3328 **Environmental Pollution and Control (3)**
Sources, effects, and methods of control for air, water, land, and noise pollution.
Prerequisites: BIO 2229/L229, CHM 1143/L143.
Co-requisite: BIO L328.

BIO L328 **Environmental Pollution and Control Lab (1-3)**
Field and laboratory techniques for air, water, land, and noise pollution.
Prerequisites: BIO 2229/L229, CHM 1143/L143.
Co-requisite: BIO 3328.

BIO 3340 **Evolution (3)**
Evolution is the fundamental unifying theory in biology. The course will introduce the major principles of evolutionary biology such as evolutionary genetics, adaption and natural selection, biological diversity, paleobiology and macroevolution.
Prerequisites: Junior standing or permission of instructor.

BIO 3347 **Human Anatomy and Physiology I (3)**
Anatomical terminology, a survey of cell types and tissues, and detailed coverage of the integumentary, skeletal, muscular, and nervous systems of humans.
Prerequisites: BIO 1100/L100, BIO 2220/ L220, CHM 1142/L142.
Co-requisite: BIO L347.

BIO L347 **Human Anatomy and Physiology I Lab (1-3)**
Anatomical terminology, a survey of cell types and tissues, and detailed coverage of the integumentary, skeletal, muscular, and nervous systems of humans.
Prerequisites: BIO 1100/L100, BIO 2220/L220, CHM 1142/L142.
Co-requisite: BIO 3347.

BIO 3348 **Human Anatomy and Physiology II (3)**
The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems of humans.
Prerequisites: a grade of C or better in BIO 3347/ L347.
Co-requisite: BIO L348.

BIO L348 **Human Anatomy and Physiology II Lab (1-3)**
The endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems of humans.
Prerequisites: a grade of C or better in BIO 3347/L347.
Co-requisite: BIO 3348.

BIO 3372 **Microbiology (3)**
Fundamentals of microbiology including historical perspectives, anatomy and growth of bacteria, microbial metabolism, diseases caused by them, and interrelationships of microorganisms with the environment.
Prerequisites: BIO 1100/L100, BIO 2220/L220 and CHM 1142/L142 .
Co-requisite: BIO L372.

BIO L372 **Microbiology Lab (1-3)**
Fundamentals of microscopy, sterile techniques, staining procedures, isolation techniques, identification of unknowns, and biochemical tests.
Prerequisites: BIO 1100/L100, BIO 2220/L220, CHM 1142/L142.
Co-requisite: BIO 3372.

BIO 3382 **Immunology (3)**
The cellular and humoral system involved in the host response and immunity of organisms to foreign substances. Mechanisms of humoral immunity, cellular immunity, and hypersensitivities.
Prerequisites: BIO 3372/L372, CHM 3342/342.
Co-requisite: BIO L382.

BIO L382 **Immunology Lab (1-3)**
Analysis of immunological techniques used in research and clinical settings.
Prerequisites: BIO 3372/L372, CHM 3342/L342.
Co-requisite: BIO 3382.

BIO 3386 **Hematology (3)**
The study of blood cells and blood-forming organs under normal and diseased states.
Prerequisites: BIO 3320/L320, 3372/L372, CHM 3342/L342.
Co-requisite: BIO L386.

BIO L386 **Hematology Lab (1-3)**
Cytological and instrumental analyses of blood cells and blood forming organs. Hematological analysis of normal and diseased states. Introduction to blood-banking procedures.
Prerequisites: BIO 3320/L320, 3372/L372, CHM 3342/L342.
Co-requisite: BIO 3386.

BIO 4405 **Entomology (3)**
Orders of insects with the emphasis on morphology, taxonomy, and life cycles.

Prerequisites: BIO 1101/L101.
Co-requisite: BIO L405.

BIO L405 **Entomology Lab (1-3)**
Morphology, classification, and identification of insects. A collection is required.
Prerequisites: BIO 1101/L101.
Co-requisite: BIO 4405.

BIO 4413 **Limnology (3)**
The physical, chemical, geological, and biological aspects of freshwater ecosystems as influenced by activities in surrounding watersheds.
Prerequisites: BIO 2229/L229, CHM 1143/L143.
Co-requisite: BIO L413.

BIO L413 **Limnology Lab (1-3)**
Field and laboratory exercises in lake and stream science, including instrumentation, measurement, sampling, and analysis.
Prerequisites: BIO 2229/L229, CHM 1143/L143.
Co-requisite: BIO 4413.

BIO 4414 **Food Microbiology (3)**
This course focuses on topics in microbial metabolism, food spoilage, food preservation techniques, and foodborne pathogens and their control. Some molecular techniques will be introduced.
Prerequisite: BIO 3372/L372.
Co-requisite: BIO L414.

BIO L414 **Food Microbiology Lab (1)**
This lab focuses on advanced microbiological laboratory techniques including enumeration and analysis of bacteria in food, water, and dairy products.
Prerequisites: BIO 3372/L372.
Co-requisite: BIO 4414.

BIO 4416 **Microbial Ecology (3)**
A study of the diversity and ecology of microbial populations in ecosystems, with the emphasis on the roles they play in biogeochemical cycles, their contributions to metabolic diversity, their interactions with animals and plants, their niches and bioremediation.
Prerequisites: BIO 3372/L372, CHM 3342/L342.
Co-requisite: BIO L416.

BIO L416 **Microbial Ecology Lab (1-3)**
A study of the diversity and ecology of microbial populations in ecosystems, with the emphasis on the roles they play in biogeochemical cycles, their contributions to metabolic diversity, their interactions with animals and plants, their niches and bioremediation.
Prerequisites: BIO 3372/L372, CHM 3342/L342.
Co-requisite: BIO 4416.

BIO 4418 **Food Laws and Regulations (3)**
Introduction to federal, state and local laws pertaining to food safety and sanitation, proper food preservation and labeling, environmental and occupational regulations, Federal Trade Commission regulations, Kosher and Halal food laws, and topics in biotechnology.
Prerequisite: BIO 3372/L372.
Co-requisite: BIO 4414/L414.

BIO 4420 **Field Vertebrate Zoology (4-7)**
The basics of vertebrate identification, with emphasis on phylogeny, anatomy, morphology, life histories, habitats, distributions, and conservation.
Prerequisites: BIO 1101/L101, CHM 1143/L143.

BIO 4421 **Population Ecology (3)**
Animal and plant populations, food supply, competition, disease, fecundity, distribution, and other environmental factors. Management of endangered species and protected ecosystems are included.
Prerequisites: BIO 2229/L229, CHM 1143/L143, MTH 2210.
Co-requisite: BIO L421.

BIO L421 **Population Ecology Lab (1-3)**
Field exercises in identifying ecological problems, formulating and testing hypotheses, and evaluating data using standard statistical methods.
Prerequisites: BIO 2229/L229, CHM 1143/L143, MTH 2210.
Co-requisite: BIO 4421.

BIO 4425 **Field Botany (4-7)**
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 herbarium techniques. Emphasis is placed on plant identification and habitat types.
Prerequisites: BIO 2229/L229.

BIO 4447 **Ornithology (3)**
Morphology, anatomy, physiology, taxonomy, life histories, distribution, and adaptations of birds.
Prerequisites: BIO 1101/L101, 2229/L229.
Co-requisite: BIO L447.

BIO L447 **Ornithology Lab (1-3)**
Structural features, identification, and classification of birds.
Prerequisites: BIO 1101/L101, 2229/L229.
Co-requisite: BIO 4447.

BIO 4451 **Toxicology (3)**
Principles related to the adverse effects of chemicals on living organisms.
Prerequisites: CHM 3342/L342, and BIO 3348/L348.
Co-requisite: BIO L451.

BIO L451 **Toxicology Lab (1-3)**
Assessment of the toxicity of chemical agents following standard protocols.
Prerequisites: CHM 3342/L342 and BIO 3348/L348.
Co-requisite: BIO 4451.

BIO 4455 **Clinical Pathophysiology (3)**
An objective-oriented, problem-solving introduction to general disease processes including mechanisms of health and disease, disorders of organ systems, and developmental disorders.
Prerequisites: CHM 3352/L352, BIO 3348/L348, BIO 3372/L372.
Co-requisite: BIO L455.

BIO L455 **Clinical Pathophysiology Lab (1)**
This course addresses normal and abnormal macroscopic and microscopic structures, provides students with the opportunity for detailed study of various aspects of pathology, understanding of basic specimen collection, labeling, handling protocols practical, and theoretical basis for laboratory test selection and interpretation.
Prerequisites: CHM 3352/L352, BIO 3348/L348, BIO 3372/L372.
Co-requisite: BIO 4455.

BIO 4460 **Critical Issues in Environmental Management (3)**
An examination of the scientific social economic and political factors that contribute to environment controversies, along with approaches for resolving disputes.
Prerequisites: BIO 1100 and SCI 2233.

BIO 4465 **Occupational Safety and Health (3)**
A study of practical information occupational safety and health technology, management, and regulatory compliance issues and covering crucial topics like an introduction to industrial hygiene; organizing, directing, and evaluating occupational safety programs; and safety-related laws, regulations, and recordkeeping.
Prerequisites: BIO 1100 and SCI 2233.

BIO 4471 **Parasitology (3)**
Taxonomy, structure, life histories, distribution, pathogenesis, and control of parasitic protozoa, helminths, and arthropods, with the emphasis on those of medical importance.
Prerequisites: Any 3000-level biology lecture and lab.
Co-requisite: BIO L471.

BIO L471 **Parasitology Lab (1-3)**
Laboratory study of parasitic protozoa, helminths, and arthropods, with the emphasis on those of medical importance.
Prerequisites: Any 3000 level biology lecture and lab.
Co-requisite: BIO 4471.

BIO 4474 **Internship in Biology Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454 Internship Seminar for Secondary Education.

BIO 4476 **Special Topics in Biology (1 to 4 credit hours per course per semester)**
Specialized topics not generally included in course offerings.
Prerequisite: Permission of instructor.

BIO 4479 **Environmental Assessment (3)**
An examination of theory and practices required in performing stream environmental assessment as currently practiced by state and federal agencies in their attempt to preserve biological integrity. Sustainable management of natural resources and a systems approach to environmental problem solving will be emphasized. Topics covered include water quality, habitat assessment, indicator species used in ecological inventory with a concentration on macro invertebrate and fish assemblages, and the index of biological integrity.
Prerequisites: BIO 1101/l101; or BIO 2229/L229.
Co-requisite: BIO L479.

BIO L479 **Environmental Assessment Lab (1-3)**
Laboratory instruction and hands-on field training regarding stream environmental assessment as currently practiced by state agencies in their attempt to preserve biological integrity. Topics covered include measurement of water quality, habitat, and practice sampling techniques, with a concentration on fish and macro invertebrate assemblages. In addition, students will learn the use of the index of biological integrity using their own collections of fish assemblages.
Prerequisites: BIO 1101/L101; BIO 2229/L229.
Co-requisite: BIO 4479.

BIO 4480 **Histology (3)**
Microscopic anatomy and function of cell types and tissues of mammalian organs.
Prerequisites: BIO 1101/L101, BIO 3347/L347, BIO 3348/L348.
Co-requisite: BIO L480.

BIO L480 **Histology Lab (1-3)**
Microscopic anatomy of cell types and tissues of mammalian organs.
Prerequisites: BIO 1101/L101, BIO 3347/L347, BIO 3348/L348.
Co-requisite: BIO 4480.

BIO 4481 **Methods and Materials for the Secondary Teacher (3)**
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of biology/science materials for grades 6-12 will be covered in detail. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

BIO 4482 **Molecular Biology (3)**
Fundamental principles of chromosomal organization and gene expression, with emphasis on the structure and function of nucleic acids and proteins.
Prerequisites: BIO 3320/L320, 3372/L372, CHM 3343/L343.
Co-requisite: BIO L482.

BIO L482 **Molecular Biology Lab (1-3)**
Experimental approaches in molecular analyses of nucleic acids and proteins, with the emphasis placed on common techniques utilized in clinical and research settings.
Prerequisites: BIO 3320/L320, 3372/L372, CHM 3343/L343.
Co-requisite: BIO 4482.

BIO 4484 **Senior Seminar in Biological & Environmental Sciences (1)**
The senior seminar course integrates knowledge, skills, and concepts acquired in departmental courses. The course is designed to help seniors to 1) prepare for the transition from college to career through a field-related project, and 2) complete a program assessment.
Pre-requisite: senior standing.

BIO 4485 **Principles and Methods for the Laboratory Assistant (1-2)**
This course will provide each student with significant "hands on" experiences in laboratory preparation and laboratory safety. Students will work under the direct mentorship and supervision of the course instructor and will be trained in preparation techniques and organization of laboratory exercises in the biological sciences.
(Students seeking one (1) semester hour credit will be required to assist in one laboratory course. Students seeking two (2) semester hours credit will be required to assist in two laboratory courses or laboratory courses with multiple sections.)
Prerequisite: Good standing as a student in the department, advisor/departmental approval, interview.

BIO 4488/ 89/90 **Internship in Biological or Environmental Science (1 to 3 credit hours per course per semester)**
Supervised work experience in the biotechnology industry, medical field, a governmental agency, business or industry, public service organization, food production or food service industry, or other working environment in which a student will learn and apply pertinent professional skills.
Prerequisites: Approval of the student's academic adviser and department chair.

BIO 4491-92 Guided Independent Research (1 to 3) credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

BIO 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

BUSINESS COURSES (BUS)

BUS 1101 **Introduction to Business (3)**
Topics covered include management, the free enterprise system, accounting, finance, marketing, economics, international business and other business concepts and terminology May not be taken for credit by business majors.

BUS 3310 **Intermediate Excel (1)**
A computer application course in which business students use common business spreadsheet software to design and implement solutions to common business problems and issues.
Prerequisite: Lower-level core.

BUS 3382 **Business Communication (3)**
Analysis and composition of business and personal communications including mechanics and content of letters and memoranda.
Prerequisite: ENG 1102 or 1104 & Lower-Level Business Core Classes.

BUS 4425 **Special Topics in Business (3)**
Special topics in areas offered by the Sorrell College of Business. Prior credit and topic approval by the Dean of Sorrell College of Business required.
Prerequisite: Approval of the instructor and Dean of the Sorrell College of Business of both topic and credit value. No more than six hours of credit may be earned.

BUS 4460 **Business Consulting and Research (3)**
Small business research and problem-solving with related field experience.
Prerequisite: Permission of the instructor.

BUS 4474 **Business and Society (3)**
This course focuses on the interrelationships between business organizations and the social, economic, political, and cultural environments in which business organizations function, both nationally and globally. Among other topics, the course will address business ethics, organizational culture and values, social responsibility, and relationships with government, education, and labor unions. This course will be a primary course in which business ethics, and the essential role that ethics must occupy in corporate life, both from national and international perspectives. Particular emphasis will be placed on the concepts of corporate social responsibility (CSR) and sustainability, both nationally and internationally, as essential dimensions of business ethics. What it means to be a good corporate citizen will be a primary theme of this course.
Prerequisite: Lower-level Core.

BUS 4476 **Strategic Management (3)**
Capstone course for business majors. Integrates knowledge, skills, and concepts acquired in all business courses taken. Requires students to analyze various corporations, determine threats and opportunities posed by the external environment as well as the firm's strengths and weaknesses, formulate strategic plans for firms, and determine how these plans should be implemented.
Prerequisites: senior standing; completion of or concurrent enrollment in remaining business core courses.

BUS 4480 **Business Seminar (3)** ***(required-capstone)***
This course is a study of the strategic implications of technology and innovation for organizations that operate in a dynamic environment. Emphasis will be placed on understanding emerging organizational and social issues that influence the adoption of technology which, in turn, influences organizations and the society in which they exist. This course serves as the capstone course for the General Business concentration.
Prerequisite: Senior standing.
Co-requisite: Recommended that this course be taken concurrently with the BSBA capstone course, BUS 4476.

BUS 4493-94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Guided Independent Research and Study.
Note: This course may not be substituted for any required course. Also see index for "Independent Study and Research."

BUS 4499 **Internship (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course.

CROSS DISCIPLINE COURSES (CDC)

Please consult the index of this catalog to locate additional information regarding cross discipline courses and/or experiential learning credit.

CHINESE COURSES (CHI)

CHI 1101 **Introductory Chinese I (3)**
Introduction to the Chinese language.

CHI 1102 **Introductory Chinese II (3)**
Introduction to the Chinese language.
Prerequisite: CHI 1101 or permission of instructor.

CHI 2201 **Intermediate Chinese I (3)**
Progressive development of basic language skills in Chinese.
Prerequisite: CHI 1102 or permission of instructor.

CHI 2202 **Intermediate Chinese II (3)**
Progressive development of basic language skills in Chinese.
Prerequisite: CHI 2201 or permission of instructor.

CHI 3310 **Chinese Culture and Civilization (3)**
Introduction to historical and current Chinese culture and civilization.
NOTE: Previous Chinese language study not required.

CHI 4493/94 **Guided Independent Study (1-3)**
Additional information is indexed under Independent Study and Research.

CHEMISTRY COURSES (CHM)

CHM 1115 **Survey of Chemistry (3)**
The course will provide an overview of some of the basic concepts and principles of chemistry. Starting with the structure of the atom, the course will proceed on to basic chemical reactions, the formation of ions, states of matter, chemical equilibrium, and chemical bonding, and will incorporate examples from the biological sciences.
Co-requisite: CHM L115.

CHM L115 **Survey of Chemistry Lab (1-2)**
The laboratory sessions will provide an overview of some of the basic concepts and techniques of general chemistry experiments. The students will conduct experiments that illustrate the concepts and principles learned in the Survey of Chemistry course lectures.
Co-requisite: CHM 1115.

CHM 1142 **General Chemistry I (3)**
Emphasis is placed on the periodic table and stoichiometry, including chemical properties, physical states, and structure.

Prerequisite: Pass MTH 1112 with at least a C (or a score of 0, 1, or 5 on the math placement exam).
Co-requisite: CHM L142.

CHM L142 **General Chemistry I Lab (1-3)**
Experiments dealing with the periodic table, atomic structure, the gas laws, and stoichiometry.
Co-requisite: CHM 1142.

CHM 1143 **General Chemistry II (3)**
Acid-base theory, solutions, chemical equilibria, thermodynamics, kinetics, and electrochemistry.
Prerequisites: CHM 1142/L142.
Co-requisite: CHM L143.

CHM L143 **General Chemistry II Lab (1-3)**
Experiments in acid-base theory, solutions, chemical equilibria, thermodynamics, kinetics, and electrochemistry.
Co-requisite: CHM 1143.

CHM 2242 **Analytical Chemistry (3)**
The theoretical principles of modern quantitative wet-chemical methods for determining composition and concentration with rigorous treatment of solution equilibria.
Prerequisites: CHM 1143/L143.
Co-requisite: CHM L242.

CHM L242 **Analytical Chemistry Lab (1-3)**
The practice of modern quantitative wet-chemical techniques in analytical chemistry.
Co-requisite: CHM 2242.

CHM 3342 **Organic Chemistry I (3)**
An introduction to the chemistry of carbon compounds that develops the theoretical principles underlying organic materials.
Prerequisites: CHM 1143/L143.
Co-requisite: CHM L342.

CHM L342 **Organic Chemistry I Lab (1 - 3)**
Experimental techniques and skills for preparing, manipulating, and reacting organic molecules.
Co-requisite: CHM 3342.

CHM 3343 **Organic Chemistry II (3)**
A continuation of CHM 3342 with emphasis on modern organic synthesis.
Prerequisites: CHM 3342/L342.
Co-requisite: CHM L343.

CHM L343 **Organic Chemistry II Lab (1-3)**
Experimental techniques and skills for preparing, manipulating, and reacting organic molecules.
Co-requisite: CHM 3343.

CHM 3350 **Principles of Physical Chemistry (3)**
An introduction to the principles of chemical thermodynamics, reaction kinetics and chemical equilibrium.
Prerequisites: CHM 3343; PHY 2253/L253; or PHY 2263/L263.
Co-requisite: CHM L350.

CHM L350 **Principles of Physical Chemistry Lab (1-3)**
Practical applications of thermochemistry, colligative properties, and reaction kinetics.
Co-requisite: CHM 3350.

CHM 3352 **Biochemistry (3)**
This course describes the molecular basis of life and discusses the structure, function and metabolism of proteins, carbohydrates, lipids and nucleid acids.
Prerequisites: CHM 3343/L343.
Co-requisite: CHM L352.

CHM L352 **Biochemistry Lab (1)**
This lab illustrates biochemistry lecture material and acquaints the student with biochemistry techniques and equipment.
Co-requisite: CHM 3352.

CHM 3381 **Physical Chemistry I (3)**
Theory and applications of thermodynamics, reaction kinetics, and transport properties with an emphasis on the description of ideal/non-ideal gases and solutions.
Prerequisite: CHM 3343; PHY 2253 and L253 or PHY 2263 and L263; MTH 1126.
Co-requisite: CHM L381.

CHM L381 **Physical Chemistry I Lab (1-3)**
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 3381.

CHM 3382 **Physical Chemistry II (3)**
A continuation of CHM 3381 with an introduction to surface phenomena, quantum chemistry, and spectroscopy with an emphasis on properties of surfaces, atomic and molecular structure, molecular orbital theory, and photochemistry.
Prerequisite: CHM 3381.

CHM L382 **Physical Chemistry II Lab (1-3)**
A continuation of CHM L381 with an introduction to methods and techniques in computational chemistry and spectroscopy.
Prerequisite or Co-requisite: CHM 3382.

CHM 4400 **Special Topics in Chemistry (3)**
A study of topics of special interest, such as advanced physical chemistry, advanced analytical chemistry, advanced organic, group theory, surface chemistry, and colloid chemistry.
Prerequisites: CHM 2242, 3343.

CHM 4403 **Advanced Organic Chemistry (3)**
A more in-depth study of many of the topics studied in Organic Chemistry I and II. Topics include reaction mechanisms, synthetic methods, structure determination using spectroscopic techniques, and stereochemistry.
Offered only at Dothan.
Prerequisites: CHM 3343/L343.

CHM 4420 **Principles of Polymer Chemistry (3)**
An introduction to principles governing polymer synthesis, characterization, and the physical properties of polymers. Topics covered will include molecular weight distribution, polymer composition, characterizations, property-structure relationships, step-growth and chain-growth polymerization and copolymerization.
Prerequisite: CHM 3381.

CHM L420 **Principles of Polymer Chemistry Lab (3)**
Synthesis, characterization, and analysis of various polymers and copolymers.
Prerequisite: CHM 4420

CHM 4444 **Advanced Inorganic Chemistry (3)**
Spectroscopy of inorganic molecules, detailed molecular orbital applications, descriptive chemistry of the transition elements, including organometallic and bioinorganic compounds.
Prerequisites: CHM 2242, 3381.

CHM L444 **Advanced Inorganic Lab (1)**
Preparation and characterization of inorganic compounds. Experience will be provided in techniques such as using a tube furnace and handling air-sensitive compounds with a glove gab and Schlenk line.
Prerequisite or Co-requisite: CHM 4444.

CHM 4445 **Instrumental Analysis (3)**
The operating principles of modern analytical instrumentation for determining composition and concentration.
Prerequisites: CHM 2242, 3343; PHY 2253/L253; or PHY 2263/L263.
Co-requisite: CHM L445.

CHM L445 **Instrumental Analysis Lab (1)**
The practical application of select modern analytical instruments to qualitative and quantitative examination of matter. Considerable attention is given to the instrument and elementary electronics involved in each.
Co-requisite: CHM 4445.

CHM 4452 **Advanced Biochemistry (3)**
This course will present the reactions, regulations, and organization of metabolic pathways. It is a continuation of CHM 3352, with emphasis on carbohydrate metabolism, aerobic metabolism, lipid metabolism, and other advanced topics in biochemistry.
Prerequisites: CHM 3352.

CHM 4474 **Internship in Chemistry Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP;
Co-requisite: SED 4454 Internship Seminar for Secondary Education.

CHM 4481 **Methods and Materials for the Secondary Teacher (3)**
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of chemistry/science materials for grades 6-12 will be covered in detail. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

CHM 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
Additional information is listed under Independent Study and Research in the section on Academic Regulations.

CHM 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
See index for "Independent Study and Research."

CHM 4499 **Senior Seminar (1 to 3 credit hours)**
Principles of preparing and presenting an oral presentation on a selected chemical topic in the current literature.

CRIMINAL JUSTICE COURSES (CJ)

Note: ***Criminal Justice courses for Fire Science and Emergency Management are listed as FS.***

CJ 1101 **Introduction Criminal Justice (3)**
Agencies and processes involved in the administration of criminal justice.
This course is a prerequisite for all 3000 and 4000 level courses unless waived by student's adviser. This course is required for all non-criminal justice majors seeking the Cyber Security minor or certificate. Criminal Justice majors may not apply this course to the Cyber Security minor or certificate.

CJ 1110 **Careers in Criminal Justice (3)**
An exploration of the various options in the criminal justice profession, to include resume building, interviewing and writing.

CJ 2221 **Survey of Law Enforcement (3)**
A survey of policing, covering developmental history, the system of law enforcement organizations in the U.S., personnel administration, police roles and behavior, operations, and major issues such as discretion, civil liability, risk, and excessive force.

CJ 2231 **Survey of Corrections (3)**
Philosophy, theory, and practices involved in the treatment of convicted law violators, the examination, and the appraisal of the effects of correctional treatment upon post-correctional behavior.

CJ 2241 **Survey of Law and Criminal Procedure (3)**
An examination of the American legal system with emphasis on the analysis and processing of criminal offenses, including an examination of constitutional criminal procedure concerning arrest, pre-trial and trial processes.

CJ 3302 **Criminal Justice Administration (3)**
A survey of public administration as it applies to criminal justice organizations. The major dimensions of criminal justice organizations examined include organizational theory, organizational design, leadership and decision making, interpersonal and organizational communication, human resource management, legal aspects of administration, financial management, and organizational change.

CJ 3305 **Foundations of Emergency Management (3)**
This course provides an overview of methods used to identify, plan for, mitigate, respond, and recover from a variety of events. The structure of the federal and state level emergency management and functions are considered along with the emergency support functions relied upon. Emphasis is placed on the roles and responsibilities of leadership during a crisis along with the framework of national, regional, and local response. The ability to understand and evaluate the phases of emergency management, continuity of government, and the private sector during incidents is also examined. Case studies, exercises, and discussions will be used to encourage critical review of the philosophy and principles of emergency management. This course addresses development of risk matrices, identification of threat and risk, and the probability of crisis event occurrence.

CJ 3308 **Foundations of Intelligence (3)**
An intellectual foundation for the study of intelligence, both as it has been practiced through history and as it is currently practiced by different nations and other entities today.

CJ 3310 **Psychology for Criminal Justice Officials (3)**
Behavior of subjects and police officers in normal and unusual conditions, arrest, interrogation, detention, incarceration, protest, demonstrations, riots, public calamities, reactions of special interest groups, minorities, and specialized tests.

CJ 3325 **Juvenile Justice (3)**
Provides a basic overview of the American juvenile justice system, beginning with the development of the juvenile court and addressing the jurisdiction, role, responsibilities, administration, and organization of the juvenile justice system. Also examined are the interfaces between police, schools, and the court, the issues of child abuse, and the operation of treatment programs.

CJ 3335 **Security Operations (3)**
An introduction to the administration of private security, the analog to the police in the public sector. Issues in private security concerning ethics, law, and policy, as well as administration, are considered.

CJ 3345 **Criminology (3)**
An examination of crime, overall and by category, and an examination of theories of crime causation, their research support and their impact on social policy, categories of crime, etc. The criminological theories covered will be classical, biological, sociological, psychological, economic, and multidisciplinary.

CJ 3348 **Deviant Behavior (3)**
An examination of the various types of social behavior that violates norms (folkways, mores, and taboos). Special emphasis will be given to the social controls that regulate behavior and the causes and consequences of deviant acts.

CJ 3349 **Punishment (3)**
This course provides an overview of the how and why behind punishment. Looking at social and criminological theories students will examine various interpretations and justifications for punishment to include various legal decisions.

CJ 3350 **Gangs (3)**
An examination of the nature and extent of gangs and gang crime in the United States and around the world.

CJ 3352 **Constitutional Law in Criminal Justice (3)**
Constitutional provisions which are relevant to criminal law and procedure, their construction and development through court interpretation, and their application in criminal proceedings.

CJ 3365 **Victimology (3)**
This course provides an opportunity for the student to gain an understanding of the crime victim's position and issues with the criminal justice system. Specifically, trends, applied responses to victimization, offender-victim relationships, typologies, measuring victimization, and prevention are examined.

CJ 3367 **History of Criminal Justice (3)**
Upon completion of the course the student must have demonstrated his/her knowledge of criminal justice systems from approximately 1700 B.C. to the present. With that knowledge and comprehension, the student should be able to analyze and apply lessons learned from that historical context to current situations in the United States Criminal Justice System.

CJ 3375 **Research Methods (3)**
Principles of pure and applied research for the social sciences. Special emphasis is given to the types of research methods employed by social scientists including survey techniques, field research, quasi-experimental designs and analytical procedures currently used in the social sciences.
Prerequisite: General studies math.

CJ 3376 **Criminal Justice Statistics (3)**
A detailed description of what social scientists do with the information they gather. Particular attention is given to descriptive and inferential statistics, the relationship between research and policy, evaluation research, and research ethics.
Prerequisite: General studies math.

CJ 3380 **Digital Forensics I (3)**
Basic course designed to introduce the students to identifying and collecting digital data, analyzing the data through the use of forensics tools (hands on) and presenting it in a written report.

CJ 3382 **Social Media Investigation (3)**
The Study of social media and its affects and uses in law enforcement field. The proper way to forensically acquire and preserve social media evidence for use in litigation.

CJ 4405 **National Security and the Law (3)**
A historical and legal exploration of national security law in the United States.

CJ 4406 **Transnational Organized Crime (3)**
A critical examination and analysis of major issues, definitions, and controversies associated with organized and transnational organized crime in a modern world. Historical, criminological, and sociological aspects of crime across national and international borders will be studied and researched. Various groups in transnational organized crime will be studied as they impact continents, countries, and globalization.

CJ 4407 **Homicide (3)**
This course is an examination of Homicide and its investigation. Topics will include types of homicide as well as death by natural and accidental cause. The course will review and expand on investigative theory, collection and preservation of evidence, sources of information, interview and interrogation, uses of forensic sciences and case and trial preparation.

CJ 4408 **Drugs, Alcohol, and Criminal Justice (3)**
This course is designed to explore relevant issues of alcohol and drug use, policy and abuse in American society and its relationship with crime and criminal justice.

CJ 4411 **Evidence (3)**
This course will provide the student with an overview of the rules of evidence applicable in criminal cases. The course will begin with an overview of the criminal trial process. Basic evidence concepts will then be explored, with particular emphasis placed upon the Federal Rules of Evidence. The course will then specifically focus on evidence concepts including, but not limited to: witness competency and impeachment, hearsay, admissions & confessions, circumstantial evidence, documentary & physical evidence and the exclusionary role.
Prerequisites: None, students are advised to complete CJ 1101 prior to taking this course, if possible.

CJ 4415 **Correctional Systems and Practices (3)**
An examination of the day-to-day operations and practices in modern correctional facilities in the local, state, and federal systems.

CJ 4420 **Comparative Criminal Justice (3)**
A comparative examination of criminal justice systems throughout the world with specific attention given to legal and political systems, organization and methods of law enforcement, jurisprudence, correctional policies, and practices. Theoretical frameworks, models, and propositions addressing crime across various societies are also considered.

CJ 4421 **Ethics in Criminal Justice (3)**
An introduction to concepts of ethics and an examination of contemporary ethical issues in the field of criminal justice.

CJ 4425 **Violence in America (3)**
In-depth study of violence, including types of violence, categories of offenders and victims, social consequences, and potential solutions.

CJ 4430 **Selected Topics in Criminal Justice (3)**
An examination of a criminal justice topic chosen for its current or special interest and importance and that is not given in-depth coverage in other courses; selection topics will vary with each course offering (although a particular topic may be offered more than once).

CJ 4440 **Terrorism (3)**
A critical examination and analysis of major issues, definitions, and controversies associated with the development of terrorism in the modern world. Historical, religious, and psychological and sociological aspects and explanations of terrorism will be covered, along with the characteristic means and methods terrorist groups employ.

CJ 4442 **Criminal Investigation and Evidence (3)**
A detailed examination of what is necessary to investigate crimes, interview people using various methodologies to solve crimes and/or prepare a case for prosecution.

CJ 4444 **Community Corrections (3)**
An examination of the purposes and goals of community-based corrections and its various components, including pretrial diversion, probation, parole, and emerging alternatives to traditional incarceration.

CJ 4445 **Current Issues in Law Enforcement Operations and Administration (3)**
A detailed examination of applied concepts of leadership and problem solving in law enforcement operations and administrations. Special emphasis is attached to current problems surfacing in law enforcement.

CJ 4446 **Current Issues in Correctional Operations and Administration (3)**
A detailed examination of applied concepts of leadership and problem solving in corrections and administration. Special emphasis is attached to current problems surfacing in corrections.

CJ 4447 **Current Issues in Legal Systems Operation and Administration (3)**
A study of the critical issues and concepts involved in modern court administration, including the law governing the presentation of evidence in the trial of criminal cases, analysis of the role of law, and the courts in American Society.

CJ 4470 **Criminal Justice Issues in Homeland Security (3)**
An examination of the political and social complexities and dilemmas associated with state and local law enforcement and federal agencies roles in the defense of our nation subsequent to Sept. 11, 2001.

CJ 4472 **Cyber Crime (3)**
This course will introduce the topics of computer crime and computer forensics. Students will be required to learn different aspects of computer crime and ways to uncover, protect, and exploit digital evidence. Students will be exposed to different types of tools, both software and hardware, and an exploration of the legal issues affected by on-line and computer-related criminal conduct. The course will examine the evolution of criminal law relative to the development of new technology.

CJ 4473 **Computer Forensics (3)**
This course is an investigation of the field of computer forensics. Students will be provided with introductory level knowledge in the field of computer forensics. Topics to be addressed will include: how to forensically acquire digital evidence, various techniques in analyzing digital evidence, and legally acceptable techniques for preserving and reporting findings from investigations. Students will be exposed to a variety of software and hardware involved in the forensics process.

CJ 4475 **Seminar in Cyber Security (3)**
A capstone course designed to integrate subject matter learned in previous courses, encourage critical analysis of contemporary issues, and seek further information on testing and certifications beyond the university setting.

CJ 4480 **Digital Forensics II (3)**
In depth study and analysis of operating system artifacts, event log, html, web browsers…analyzing the data and presenting it in a written report.
Prerequisite: CJ 3380.

CJ 4481 **Operating and File System Forensics (3)**
Examination of common file systems and operating system artifacts. Students will learn general components of FAT and NTFS file systems and how data is stored. Explore artifacts from common operating systems such as Apple's OS X and Microsoft's Windows family. This course will explore the most commonly used file systems and operating system artifacts in preparation for real-world analysis and digital forensics.

CJ 4482 **Digital Evidence Practicum (3)**
Examine various techniques and procedures for law enforcement officers related to the forensically sound identification, seizure and collection of evidence through classroom study and practical exercises.

CJ 4488-89-90 Internship in a Criminal Justice Agency (3)
Experience in a selected criminal justice agency, working in groups or individually. Supervised application and observation of concepts, principles, skills, operation and functions of knowledge acquired by the student in previous or current course work and studies. Problems will be identified with attendant solutions in the areas of police work, the correctional agencies, or the court systems as appropriate to the student's program of study.

CJ 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

CJ 4493-94 **Guided Independent Study (1 to 3 credit hours per course semester)**
Additional information is indexed under Independent Study and Research.

CJ 4499 **Senior Seminar in Criminal Justice (3)**
This is a capstone course designed to (1) help seniors integrate the knowledge gained from their other required criminal justice courses, (2) assist them in developing analytical thinking skills through focusing on selected topics using a seminar approach, and (3) support them in gaining a better understanding of the criminal justice profession and the role they may play in it.
Prerequisites: Completion of all Criminal Justice core courses.

CLASSICS COURSES (CLA)

CLA 2210 **Greek and Roman Culture (3)**
A survey of the cultural achievements of the ancient Greeks and Romans.

CLA 2260 **Classical Mythology (3)**
Myths of the Greeks and Romans and their influence.

CLA 2290 **Classical Literature in English Translation (3)**
Greek and Roman masterpieces as expressions of humanity.
Prerequisites: ENG 1101, 1102.

CLA 3311 **Civilization of Greece (3)**
Historical and cultural achievements of the Greeks and their legacy to the modern world.
Note: May be taken for credit as an elective in the Department of History.

CLA 3312 **Civilization of Rome (3)**
Historical and cultural achievements of the Romans and their legacy to the modern world.
Note: May be taken for credit as an elective in the Department of History.

CLA 3330 **Classical Epic (3)**
Homer's *Iliad* and *Odyssey*, Virgil's *Aeneid*, and the epic tradition.

CLA 3350 **Classical Drama (3)**
The ancient theatre and its influence with selected plays by Greek and Roman playwrights.

CLA 4400 **Selected Topics in Classics (3)**
Selected topics in classical studies generally not covered in other courses.
May be repeated once for credit.

CLA 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

CLA 4493-94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

COMMUNICATION COURSES (COM)

COM 1101 **Introduction to Communication (3)**
This course surveys the historical and cultural impact of human and mass communication including newspapers, magazines, radio, television, sound recordings, motion pictures, and the internet. It also discusses social effects and ethical concerns of communication.

COM 2231 **Interpersonal Communication (3)**
Study of theories of communication behavior in relatively unstructured face-to-face situations, including small-group discussion.

COM 2241 **Fundamentals of Speech (3)**
This course is a study of the principles and practices basic to public speaking. This course is designed to enhance the student's verbal and non-verbal communication skills through oral communication theory and practical application.

COM 2243 **Honors Fundamentals of Speech (3)**
Study and application of the principles and practices basic to all areas of oral communication. As part of the university's Honors Program, the course is designed to achieve the student's leadership objectives through improved verbal and non-verbal communication skills by means of a focus on one substantive area of interest.

COM 2251 **Voice and Diction (2)**
Study of individual and group practice in the effective use and control of the mechanics of oral delivery with a focus on the "professional dialect" the general American dialect and/or the standard dialect. Includes use of the International Phonetic Alphabet.

COM 3320 **Interviewing and Information (3)**
Study of the principles and practices of professional and personal interviewing, with an emphasis on oral communication and related topics such as resume writing. In addition, the course will focus on gathering and analyzing information through discussion and practice of the techniques of online research, focus groups and opinion surveys.

COM 3324 **Gender Communication (3)**
This course examines the communication styles of males and females emphasizing gender-related communication behavior and its implications for the ability to maintain effective personal and professional relationships.

COM 3326 **Conflict Management (3)**
This course is designed to offer students opportunities to enhance and improve their communication techniques and skills in conflict management. The course teaches students communication methods to manage productively interpersonal disputes between/among parties. It emphasizes building partnerships and long-term positive relationships in the business world and in one's personal life.

COM 3328 **International/Intercultural Communication (3)**
This course is designed to introduce students to the basic concepts, principles, and skills needed for improving communication among persons from different minority, racial, ethnic and cultural backgrounds.

COM 3341 **American Public Address (3)**
Study of the history and rhetorical criticism of major American speakers and their speeches from the Colonial to the Contemporary periods, with references to their biographical, intellectual, political and social contexts.

COM 3342 **Argumentation and Debate (3)**
Study and application of the principles of argumentation and debate, including selected aspects of the management of a program of competitive forensics.

COM 3345 **Group Discussion and Leadership (3)**
Study and application of the principles and practices of group problem solving through the study of the dynamics of discussion and group leadership.

COM 3365 **Fundamentals of Speechwriting (3)**
This course gives a hands-on, detailed instruction in the art and skills of researching and writing solid speeches, including how to make points clearly and maintain the audience interest. Speechwriting is approached from the perspective of writing speeches for others and for yourself.

COM 3380 **Travel Study in Journalism and Communication (3)**
Supervised study of journalism, communication and mass media through travel abroad or within the interior of the United States.
May be repeated once for credit.
Prerequisites: Permission of instructor.

COM 4400 **Special Topics in Communication Studies (1 to 3 credit hours)**
Examination of selected topics in communication studies not included in the established curriculum. Content may be of a historical, thematic, or technological nature.
May be repeated for credit.

COM 4410 **Communication Research (3)**
This course will help students develop critical thinking skills through an introduction to the concepts and principles of scientific research in communication and journalism. Some of the topics included in this class are the basics of identifying problems, hypothesis formation, measurement construction, validation, research designs, analysis techniques and proper interpretation of results.
Prerequisite: Must have Junior Standing or permission of instructor.

COM 4420 **Propaganda and Persuasion (3)**
This course will explore influence techniques in print, graphics, traditional media and social reality as they migrate to interactive spaces. The course will first examine the history and fundamentals of persuasion, influence, and coercion, and then look at how they have been adapted for use in today's interactive contexts. Throughout this course there will be a discussion of the relative ethics of using propagandistic/persuasive techniques for different purposes.

COM 4422 **The Rhetoric of the Civil Rights Movement (3)**
This course will focus on civil rights discourse and its relationship to equality and participation in the U.S. and other nations worldwide. Using the struggle of African Americans as an instructive exemplar, this course will examine the philosophical concepts, political issues, moral

complexities, and discursive characteristics of civil rights rhetoric.

COM 4424 Rhetorical and Communication Theory (3)
This course presents an introduction to rhetorical theory and communication theory; students will gain experience in applying theoretical approaches to practical applications in criticism and analysis of communication. Students will gain insights into how to communicate effectively in writing, visually and orally as well as how to analyze critically communication occurring in a wide array of contexts and for different purposes, from private and interpersonal settings to public and professional arenas.

COM 4426 Organizational Communication (3)
This course presents both historical and current perspectives on the origins and usefulness of organizational theory relating to communication issues; it emphasizes the relationship between organizational life and communication principles; and provides both theory and the opportunity for the practical application of communication skills in a variety of organizational settings.

COM 4430 Health Communication (3)
This course focuses on an examination of the nature, contexts, theories, and selected research shaping health care consumers understanding of health communication issues. It provides an overview of provider-recipient communication, communication in health-care organizations, and public health concerns as they relate to physical, mental, and social health issues.

COM 4441 Oral Interpretation (2)
A study and application of the principles and practices of oral interpretation (reading) of literature, including individual and ensemble performance.

COM 4460 Crisis Communications (3)
Prepares students for anticipating and managing perceived and real crises faced by communication.

COM 4491-92 Guided Independent Research (1 to 3 credit hours per course)
Additional information is indexed under Independent Study and Research.

COM 4493-94 Guided Independent Study (1 to 3 credit hours per course)
Additional information is indexed under Independent Study and Research.

COMPUTER SCIENCE COURSES (CS)

CS 2250 Computer Science I (3)
An introduction to the theory and development aspects of a high-level programming language. The course covers programming methodologies, control structures, predefined and user defined functions, input/output streams, control structures, logical expressions, enumeration, repetition, multidimensional array and string manipulation, structures, searching, sorting techniques, and advanced input/output. Program analysis, design, development, and testing are emphasized.
Prerequisite: MTH 1112.

CS 2255 Computer Science II (3)
A continuation of Computer Science I to include advanced programming techniques including classes and data abstractions, inheritance and composition, pointers, virtual functions, overloading, exception handling, and recursion. Students analyze, design, implement, and test complex programs.
Prerequisite: CS 2250.

CS 2265 Advanced Programming I (3)
Provides student the opportunity to gain experience and training in an additional high-level language. The course focuses on advanced topics including objects, structures, applets, graphics, exception handling, files, and streaming.
Prerequisite: CS 2255.

CS 3310 Foundations of Computer Science (3)
A broad perspective of computer science concepts intended as preparation for more in-depth coverage in higher-level courses. Topics include machine and assembly language programming, computer system organization and operation, logic circuits, finite-state diagrams and programming language grammar, Boolean algebra, and circuit design considerations.
Prerequisite: MTH 1112.

CS 3320 Business Systems Programming (3)
The study and application of a business-oriented programming language. Students apply a structured, multiphase program development process that features a series of steps involving understanding of problems, formal problem definition, design methodologies, program specification, and file definition as applied to business processing systems. The course includes the study and application of the following concepts: structured design methodology, divisions, arithmetic and intrinsic functions, decisions structures and logical control structures, iterative processes, case structure, error capture, batch processing, file manipulation, table manipulation, and interactive structures.
Prerequisite: CS 2255.

CS 3323 Data Structures (3)
A survey of data structures that includes lists, ordered lists, linked lists, stacks, queues and trees. Also included are measurement of program performance and how program performance is affected by alternative data structures. These concepts are presented within an object-oriented framework. Programming labs are included.
Prerequisite: CS 2255, MTH 1125, 2215.

CS 3325 Operations Research (3)
Introduction to operations research, linear programming, simplex-based sensitivity analysis and duality, linear programming applications, network models, simulation, waiting line models, Markov processes, forecasting, and inventory models.
Prerequisites: MTH 1125

CS 3329 Analysis of Algorithms (3)
Alternative techniques to solve computer science problems are presented. Problems include sorting, searching, and graph traversal, lists, ordered lists, linked lists, stacks, queues, and trees. These concepts are presented within an object-oriented framework.
Prerequisite: CS 3323.

CS 3330 Data Structures and Algorithms (3)
A course in fundamental data structures concepts and alternative techniques for solving real-world problems in computer science. Concepts and application covered include analysis of data representation and associated algorithms, including linked lists, queues, stacks, arrays, graphs, trees, searching, sorting, string matching, and the application of recursive techniques. The course will place an emphasis on the implementation of various algorithms and data structures.
Prerequisites: CS 2255, MTH 2201, 2215.

CS 3331 Fundamentals of Artificial Intelligence (3)
Approaches to the definition of artificial intelligence and to the design and implementation of intelligent computer systems. Topics include the

Turing Test, Sourly; Chinese Room, blackboard systems, logic programming, knowledge based systems, scripts and schemas, and heuristic search techniques.
Prerequisite: CS 3323 or 3330.

CS 3332 **Software Engineering I (3)**
Topics are presented that focus on the design and development techniques for large high quality software systems. They include project management issues, analysis and design methods, and approaches to testing.
Prerequisite: CS 3323 or 3330.

CS 3333 **Introduction to Cryptography (3)**

Discussion of mathematical foundations to the theory of cryptography. Topics include information theory, number theory, cryptographic protocols and various algorithms.

Prerequisite: MTH 1125.

CS 3334 **Foundations of Cyber Security (3)**

Course provides an introduction to cyber security. Topics include security protocols and cryptography; various kinds of cyber threats and defenses; secure software design and development, attack modeling, risk analysis, cybercrime, cyber law, ethics and policies.

CS 3336 **Information Assurance (3)**

Topics include software security and lifecycle, identity and trust technologies; verification, access control, privacy, personal responsibility intrusion detection, supply chain management.

Prerequisites: CS 3325, CS 3334 and CS 3360.

CS 3347 **Advanced Programming II (3)**
Provides student the opportunity to gain experience and training in an additional high level language. Topics include interactive techniques, arrays, multiple forms, data files and databases, grids, graphics, OLE, DLL's and custom objects. Emphasis is on finding creative solutions to application problems.
Prerequisite: CS 2255.

CS 3360 **Concepts of Object Oriented Programming I (3)**
Provides students the opportunity to gain experience and training in an additional high level language. The course focuses on advanced topics including classes, objects, interfaces, applications, encapsulation, exceptions, multithreading, graphics, exception handling, files, and streaming.
Prerequisite: CS 2255.

CS 3361 **Concepts of Object Oriented Programming II (3)**
The conceptual framework for object-oriented programming and systems. Topics include classes, data hiding, modularity, inheritance, and reusable code presented through the use of some object-oriented language.
Prerequisite: CS 3360.

CS 3365 **Introduction to Computer Organization and Architecture (3)**
Organization and operation of computer systems. Topics include hardware components of digital computers, micro-programming, memory management, interrupt organization, addressing modes, and instruction formats.
Prerequisite: CS 3310.

CS 3370 **Nature of Programming Languages (3)**
Basic principles and concepts of programming languages including what a programming language is, various paradigms that a language can follow, and how its syntactical and semantic structures can be specified. The traditional object-oriented paradigm will be presented as well as non-traditional paradigms based on symbolic logic (logic programming) and on functions in lambda calculus (functional programming).
Prerequisite: CS 3323 or 3330.

CS 3372 **Formal Languages and the Theory of Computation (3)**
Formal language theory, including the Chomsky hierarchy, is presented. Emphasis is placed on regular and context free grammars, finite state automata, and translators.
Prerequisite: CS 3323 or 3330.

CS 3375 **Foundations of Networking (3)**
An introduction to the principles of data communications and network systems. Topics to be addressed include standards, topologies, network management, LAN, WAN, Internet, basic communication protocols and introductory level network security.
Prerequisite: CS 3310. Students majoring in Applied Computer Science or in the Computer Science Program may not apply this course to the Cyber Security Minor or certificate. Credit will not count toward a major or minor in Computer Science.

CS 4401 **Advanced Artificial Intelligence (3)**
A continuation of Fundamentals of AI. A topic of research including logic programming, fuzzy sets genetic algorithms, artificial neural networks, or pattern analysis is included.
Prerequisite: CS 3331.

CS 4420 **Introduction to Database Systems (3)**
The fundamental concepts and structures necessary for the design and implementation of a database management system. Students design, load, and query a database using tools such as E-R diagrams and SQL. Also includes data normalization and file and index organization.
Prerequisite: CS 3323 or 3330.

CS 4443 **Web-Based Software Development (3)**
The essentials of Internet programming. Students will design and write Web page applications utilizing Internet programming techniques including scripting languages and hypertext. Programs will manipulate many forms of data including hypertext, graphics, audio, and video. Students use state-of-the-art development tools and design methods to implement an enterprise web application.
Prerequisite: CS 3323 or 3330.

CS 4445 **Data Communication and Networking (3)**
An overview of local-area and wide-area systems. Issues discussed include standards, topologies, management, communication protocols, and security.
Prerequisite: CS 3323 or 3330.
Students majoring in Applied Computer Science or in the Computer Science Program may not apply this course to the Cyber Security minor or certificate.

CS 4447 **Systems Analysis and Design (3)**
Study of the analysis of computer-based information systems. Emphasis is placed on analysis, specifications development, design, and development of information systems, including the software and databases that support the business needs of organizations. Both data-oriented and process-oriented design methods are covered. Topics include the systems analyst, the systems development life cycle, methodologies, development technology, systems planning, project management, systems analysis, systems design, systems implementation, and systems support.
Prerequisite: CS 3323 or 3330.

CS 4448 **Operating Systems (3)**
An overview of operating system functions and components. Issues include process definition,

scheduling, and memory management. Various modern operating systems are compared.
Prerequisite: CS 3323 or 3330.

CS 4449 **Applied Networking (3)**
Computer networks and the use of computer networks in industry environments. Topics covered include client-server networks, network hardware and software, distributed computing, user requirements, considerations in physical media and topology, selection of Network Operating Systems (NOS), computing platforms, network administration, applications software, internetworking components, and key issues in network management.
Prerequisite: CS 3375 or CS 4445.

CS 4451 **Computer Security (3)**
Basic security concepts and principles applied to real-world applications. Introduces the major elements that go into a security implementation, including encryption, authentication, access control lists, execution control lists, vulnerability of operating systems, auditing, performing vulnerability analysis and risk assessment, developing a security plan and protecting data, systems and infrastructure. This course also builds on the fundamentals of reliability and safety engineering, which include software reliability, growth models, testing and stopping-rules, safety methods and redundancy.
Prerequisite: CS 3323 or 3330.

CS 4452 **Cyber Security Policies and Compliance (3)**
Course introduces cyber policies, including cyber law, cyber policy, intellectual property, privacy, professional responsibility, and global societal impacts.
Prerequisite: CS 3334.

CS 4453 **Ethical Hacking (3)**
Course provides an introduction to the principles, techniques, and tools of ethical hacking. Topics include information gathering and scanning, vulnerability analysis and exploitation.
Prerequisite: CS 3323.

CS 4454 **Secure Software Development (3)**
Topics include Software Development Life Cycle (SDLC), Vulnerability Mapping, Security requirement planning, threat analysis, software testing.
Prerequisite: CS 3323.

CS 4455 **Cyber Security Techniques and Practices (3)**
This course introduces various tools and techniques used to secure computer systems. Topics include packet analysis with diagnostic software, firewall configuration, conduct forensic investigation, etc.
Prerequisite: CS 4445.

CS 4461 **Software Engineering II (3)**
This course is a continuation of Software Engineering I with additional topics that include software quality insurance and testing techniques. Students will design, implement and test a large project.
Prerequisite: CS 3332.

CS 4462 **Special Topics in Object-Oriented Programming (3)**
This course is a continuation of CS 3361. It presents the conceptual framework for the design of object-oriented systems. Topics include re-factoring designs and design patterns, presented through the use of some object-oriented language.
Prerequisite: CS 3361.

CS 4495 **Special Topics in Computer Science (3)**
Topics in computer science that are not included in regular course offerings. Specific contents are announced in the course schedule for a given term.
Prerequisites: senior standing or consent of instructor.

DANCE COURSES (DAN)

DAN 1112 **Contemporary Technique I (2)**
Designed for the dance major, DAN 1112 is the study of beginning/intermediate Contemporary dance, including dynamic alignment, body/mind connection, increased vocabulary and musicality, with emphasis on artistry through the contemporary aesthetic.
Prerequisite: Placement.

DAN 1115 **Ballet Technique I (2)**
Designed for the dance major, DAN 1115 is the study of beginner/intermediate ballet technique, including safe and efficient alignment and clear articulation of movement vocabulary with emphasis on increased vocabulary and musicality.
Prerequisite: Placement.

DAN 1130 **Social Dance in the 21st Century (1)**
A cross-cultural survey of theories and styles of dance, their relationship to societal contexts and other art forms.

DAN 1132 **Beginning-Intermediate Contemporary for Non majors (1)**
Refinement of technical skills in contemporary/ modern dance at the intermediate level, including intermediate movement capabilities, rhythmic structures, spatial relationships, movement vocabulary with emphasis on aesthetic and expressive qualities that lead to performance.
Prerequisite: Placement.

DAN 1134 **Ballroom Dance**
An introduction to social dancing with an emphasis on American ballroom dances (foxtrot, waltz, swing) and Latin ballroom dances (cha cha, mambo, tango). Equivalent to KHP 1134.

DAN 1135 **Ballet I (1)**
The development of technical skills in beginning ballet, including safe and efficient alignment and clear articulation of movement vocabulary with emphasis on increased vocabulary and musicality.

DAN 1136 **Jazz I (1)**
The study and application of the fundamental concepts, skills, movement vocabulary, and artistic expression specific to beginning jazz dance.

DAN 1137 **Tap I (1)**
Progressive development of beginning to low/ intermediate movement concepts, skills, vocabulary, and styles specific to tap dance.

DAN 1150 **Creative Habit (1)**
A component of the Department of Theatre and Dance First Year Initiative program (FYI), Creative Habit is part of the introductory learning community established at the entry level for incoming theatre and dance students. Centering on Twyla Tharp's book *The Creative Habit*, the learning community examines strategies for successful studies in theatre and dance.
Co-requisites: THE 1130 and TROY 1101.

DAN 2200 **Orientation to Dance (2)**
Introduction to the basic concepts and principles common to ballet, contemporary and jazz dance through studio experience, discussions and concert attendance. This is a skills class.

DAN 2212 **Contemporary Technique II (2)**
Designed for the dance major, DAN 2212 is the study of intermediate modern, including dynamic alignment, body/mind connection, complex center and across the floor phrase work with increased vocabulary and musicality.
Prerequisite: Placement.

DAN 2214 **Pointe Ballet Technique I (2)**
Designed for the female dance major, DAN 2214 is the foundational study of pointe work technique using specially reinforced shoes called pointe shoes. Students will focus on Barre and center work that will introduce the foundation and basics needed to strengthen the student's legs and torso to overcome the demands of dancing in pointe shoes. The class will offer an increased vocabulary specific to dance on pointe.

DAN 2215 **Ballet Technique II (2)**
Designed for the dance major, DAN 2215 is the further development of technical skills in intermediate ballet, including dynamic alignment, body/mind connection, with emphasis on self-expression through the ballet aesthetic, increased vocabulary and musicality.
Prerequisite: Placement.

DAN 2232 **Contemporary II (2)**
Refinement of technical skills in contemporary/ modern dance at the intermediate/high intermediate level, including complex movement capabilities, rhythmic structures, spatial relationships, movement vocabulary with emphasis on aesthetic and expressive qualities that lead to performance.
Prerequisite: Audition placement or permission of the Department of Theatre and Dance.

DAN 2235 **Intermediate-Beginning Ballet: Non-majors (2)**
Further development of technical skills in beginner/ intermediate ballet, including dynamic alignment, body/mind connection, with emphasis on self-expression through the ballet aesthetic, increased vocabulary and musicality.
Prerequisite: Placement.

DAN 2236 **Jazz II (2)**
The study and application of the fundamental concepts, skills, movement vocabulary and artistic expression specific to jazz dance.
Prerequisite: Placement.

DAN 2237 **Tap II (1)**
Progressive development of intermediate to intermediate/high movement concepts, skills, vocabulary, and styles specific to tap dance.
Prerequisite: Placement.

DAN 2250 **Music Fundamentals for Theatre and Dance (2)**
Fundamental music skills for theatre and dance, including those for musical theatre, stage management, dance, and actors. The course focuses on reading music (rhythm and melody), vocabulary, development of aural skills, and an introductory recognition of the piano keyboard.

DAN 2252 **Methods of Teaching Dance (3)**
Social, folk and square dancing, including basic rhythmic activities which can be taught in elementary, middle and high schools. Equivalent to KHP 2252.

DAN 2289 **Dance Practicum I (1)**
This course is designed to provide the student individual practical performance, choreographic, teaching, or dance industry support.

DAN 3300 **Musical Theatre Dance I (2)**
The exploration of the genre of musical theatre dance examining storytelling, script, music, and mood through movement. This course will focus on early American jazz and tap styles related to theatre production by working with selected pieces from the mid-20th century including that of Gene Kelly, Fred Astaire, Jerome Robbins, and other icons of this period.
Prerequisites: DAN 1135.

DAN 3312 **Contemporary Technique III (2)**
Designed for the dance major, DAN 3312 is the study of advanced modern dance, including dynamic alignment, body/mind connection, and increased vocabulary with emphasis on artistry through the contemporary aesthetic. Students will focus on complex center and across the floor combinations with an emphasis on musicality and a greater understanding of anatomical alignment.
Prerequisite: Placement.

DAN 3314 **Pointe Ballet II (2)**
Designed for the intermediate/advanced female dance major, DAN 3314 is the further development of pointe work technique using specially reinforced shoes called pointe shoes. Barre and center work will strengthen the student's legs and torso, increasing vocabulary, comfort, and ease of movement while dancing on pointe.
Prerequisite: Pointe Ballet I or Placement.

DAN 3315 **Ballet Technique III (2)**
Designed for the dance major, DAN 3315 is the further development of technical skills in advanced ballet, including dynamic alignment, body/mind connection, increased vocabulary, with emphasis on the qualities of self-expression and musicality which lead to performance.
Prerequisite: Placement.

DAN 3330 **Special Topics in Dance (1 to 3)**
Special topics in dance.

DAN 3332 **Intermediate Contemporary for Non- majors (2)**
Continued refinement of technical skills in contemporary/modern dance at the high intermediate/advanced level, including complex movement capabilities, rhythmic structures, spatial relationships, movement vocabulary with emphasis on aesthetic and expressive qualities that lead to performance.
Prerequisite: Placement

DAN 3335 **Intermediate Ballet for Non-majors (2)**
Further development of technical skills in advanced ballet, including dynamic alignment, body/mind connection, with emphasis on self expression through the ballet aesthetic.
Prerequisite Placement.

DAN 3336 **Jazz III (2)**
The study of the advanced concepts, skills, movement vocabulary and artistic expression specific to jazz. *Prerequisite: Placement.*

DAN 3340 **Dance Composition and Choreography I (2)**
An exploration of movement and an analytical study of the art of making dances. The course will concentrate on the four basic elements of composition: space, shape, time and energy.
Prerequisite: Permission of the Department of Theatre and Dance.

DAN 3350 **Conditioning (2)**
Designed to complement the dancer's regimen, DAN 3350 will focus on a hybrid conditioning experience to include pilates, yoga, floor barre, jogging, and swimming, improving the dancer's overall strength, stamina, flexibility and muscle tone and will assist in overcoming specific musculature weaknesses.

DAN 3351 **Men's Ballet Technique (2)**
Designed for male dance majors, the course will focus on the elements necessary for improving the vocabulary of the male dancer, such as jumps, turns, and line. The course will focus on dynamics necessary to increase speed, coordination, and elevation, especially as needed to execute big jumps. Anatomical placement, strength, and musicality will be the emphasis to build confidence in men's variations, in classical and contemporary styles.

DAN 3352 **Pas de deux (2)**
Designed for the intermediate dance major, DAN 3352 is the study of partnering technique. The course will focus on the elements needed for the

female and the male dancer to develop a foundation for dancing together, progressing technically through promenades, lifts, turns, and jumps. The course will introduce special vocabulary that is used only in partnering which enhances the skills needed to become a complete and secure dancer.

DAN 3353 **Anatomy and Alignment (3)**
This course covers aspects of anatomy and kinesiology that directly apply to correct development of dance technique, emphasizing exercises and imagery for floor and center work to correct insufficient muscle patterns and is designed to give dance majors a practical, functional, and theoretical understanding of kinesiology such as identifying bony landmarks, muscles, and joint actions as well as injury prevention.

DAN 3354 **Improvisation (2)**
This course introduces students to the art of improvisation. They will examine the elements of and approaches to the improvisational process as they develop their ability to react imaginatively to extemporaneous situations created through dance. This course will focus on spontaneous problem solving through the exploration of movement and will evoke the student's individual creative process while maintaining the sense of ensemble.

DAN 3355 **Commercial Dance I (2)**
This course addresses the needs of dancers who aspire to perform in television, music videos, or on stage. Students will receive intermediate technical instruction in a variety of dance forms and styles that will introduce them to the commercial industry. With an emphasis on the artistry of the commercial dance aesthetic, students will develop technical skills, including dynamic alignment and body/mind connection, increased musicality, and movement vocabulary. Special attention will be placed on tricks, jumps, and turns.

DAN 3356 **Commercial Dance II (2)**
This course addresses the needs of advanced dancers who aspire to perform in television, music videos, or on stage. Students will receive advanced technical instruction in a variety of dance forms and styles, which will expand on principles established in Commercial Dance I.
Prerequisite: DAN 3355.

DAN 3360 **Musical Theatre Dance II (2)**
Further exploration of the genre of musical theatre dance examining storytelling, character, script, score, and mood through movement. This course will focus on late 20th century (1975 forward) and contemporary dance and movement styles related to theatre productions.
Prerequisite: DAN 1135.

DAN 3380 **Travel Study in Dance (1-3)**
Supervised study of dance through travel abroad or within the United States.
May be repeated for credit.
Prerequisite: Permission of instructor.

DAN 3389 **Dance Practicum II (2)**
A highly individualized practical experience course designed for the student to continue work in choreography, teaching, performance, production, design, or management with the purpose of focusing on career plans.
Prerequisite: DAN 2289.

DAN 4400 **Repertory Ensemble (1)**
Designed for auditioned members of the TROY Dance Repertory Ensemble.
Prerequisite: Audition or invitation.

DAN 4410 **Dance History I (3)**
A survey of dance history from the 16th through the 19th centuries, DAN 4410 examines the evolution of dance forms which have been influenced by both cultural world dance and ballet, focusing on the rise of ballet as a communicative art form. It will explore the theoretical underpinnings of these forms as they have shaped dance today.

DAN 4411 **Dance History II (3)**
A survey of the purposes, functions, and manifestations of American and European dance forms from the beginning of the 20th century to the present. Dance History II covers the forerunners and pioneers of modern dance; avant-garde and post-modernists; and the artists of jazz, tap, Broadway, film, and current media, introducing dance students to the innovators, dancers, and choreographers responsible for shaping 20th and 21st century dance.

DAN 4412 **Contemporary Technique IV (2)**
For the Dance major. Study of pre-professional modern dance, including dynamic alignment, body/mind connection, and increased vocabulary with emphasis on artistry through the contemporary aesthetic. Students will focus on complex center and across the floor combinations with an emphasis on musicality and a greater understanding of anatomical alignment.
Prerequisite: Placement.

DAN 4415 **Ballet Technique IV (2)**
For the advanced major. Further development of technical skills in a semi-professional level ballet class, including dynamic alignment, body/mind connection, increased vocabulary, with emphasis on the qualities of self-expression and musicality, which enhance performance abilities.
Prerequisite: Placement.

DAN 4440 **Composition and Choreography II (3)**
Exploring movement and analytical study of the art of making dances at the advanced level. Concentration on the four basic elements of composition—space, shape, time, and energy. By Choreography II, students should be crafting full-length dances.
Prerequisite: DAN 3340 passing with a grade of C or higher.

DAN 4480 **Pedagogy (3)**
Exploration of teaching methods in dance that can be adapted to diverse populations and to use these methods in classroom teaching situations, offering the student simulated hands-on experience. Through experiential pedagogy, students will gain a deeper appreciation for the instructor and develop a more thoughtful approach to taking class. This course is designed to provide students with the ability to integrate their professional studies of technical and conceptual content knowledge with pedagogical content knowledge related to dance.

DAN 4489 **Dance Practicum III (2)**
A final departmental assessment course for the dance major to include the exit exam, this course completes the broad based strategies for career development.
Prerequisite: DAN 3389.

EARLY CHILDHOOD EDUCATION (ECE)

ECE 3315 **Assessment in ECE (3)**
Child observation, documentation, and other forms of assessment central to the practice of all early childhood professionals will be presented. The goals, benefits and uses of assessment will be studied. Systematic observations, documentation, and other effective assessment strategies used in a responsible way, in partnership with families and other professionals, to positively influence the development of every child will be explored.
Prerequisite: Admission to TEP.

ECE 3325 **Child Growth & Development (Birth to 8 years) (3)**
The purpose of this course is to provide candidates a child development knowledge base. Candidates will use their understanding of young children' characteristics and needs, and of multiple interacting influences on children's development and learning, to create environments that are healthy, respectful, supportive, and challenging for each child. This course will include a minimum of 15 hours of clinical field experience in a child care setting.
Prerequisite: Admission to TEP.

ECE 3340 **Language Acquisition (3)**
The purpose of this course is to assist candidates as they investigate and construct an operational knowledge of young children's language and literacy acquisition. A wide array of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and positively influence each child's development and learning will be explored. This course includes 15 hours of clinical field experiences where students interact with diverse learners through observation and participation in the application of appropriate language and literacy experiences, including technology.
Prerequisite: Admission to TEP.

ECE 3385 **Primary Math & Science (3)**
The purpose of this course is to assist candidates as they investigate and construct an operational knowledge of young children's construction of logico-mathematical and physical knowledge. This course includes 15 hours of clinical field experiences where students interact with diverse learners through observation and participation in the application of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and positively influence each child's development and learning.
Prerequisite: Admission to TEP.

ECE 3391 **Social Studies; Community & Family (3)**
This course prepares candidates to understand that successful early childhood education depends upon partnerships with children's families and communities. Knowledge, understanding, and valuing the importance and complex characteristic of children's families and communities will be used to create respectful, reciprocal relationships that support and empower families, and involve families in their children's development and learning. A minimum of 15 hours of clinical field experience will be required.
Prerequisite: Admission to TEP.

ECE 4401 **Integrated Program (3)**
This course is designed to prepare early childhood majors to use their knowledge of academic disciplines to design, implement and evaluate experiences that promote positive development and learning for each and every young child. The essential concepts, inquiry tools, and structure of content areas, including academic subjects, and resources to deepen their understanding will be explored. A minimum of 15 hours clinical field experience is required.
Prerequisite: Admission to TEP.

ECE 4454 **Internship Seminar for Early Childhood Education (3)**
This course provides seniors an opportunity during internship to examine 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.
Prerequisite: ad-mission to TEP;
Co-requisite: ECE Internship.

ECE 4474 **Internship in Early Childhood Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: ECE 4454.

INTERNATIONAL ECONOMIC DEVELOPMENT COURSES (ECD)

ECD 3362 **Applied Spatial Analysis for Business (3)**
This introductory course prepares students to become decision makers able to analyze business data, both internal and external, from a spatial perspective utilizing geographic information systems software.

ECONOMIC COURSES (ECO)

ECO 1150 **Survey of Economics (3)**
This course is a study of commerce and economics and their impact on society, technology, and business. This course will cover basic commerce and economics terminology and concepts important to managers.

ECO 2251 **Principles of Macroeconomics (3)**
Macroeconomic theory of the national economy with emphasis on income, employment, banking, and public policy.

ECO 2252 **Principles of Microeconomics (3)**
Microeconomic theories of value, production, distribution of income, and basic international economic analysis.

ECO 3351 **Intermediate Macroeconomics (3)**
Study of the variables affecting employment, income, and prices. Monetary theory and theories of fluctuation are reviewed. Policies dealing with economic stabilization are examined.
Prerequisite: ECO 2251.

ECO 3352 **Intermediate Microeconomics (3)**
Study of price and distribution theory as it relates to households, firms, and industries. Theories of factor prices and general equilibrium are also examined.
Prerequisite: ECO 2252.

ECO 3353 **Money and Banking (3)**
Principles of money, credit, and banking including monetary systems, theories, and commercial banking operations related to the Federal Reserve System.
Prerequisite: ECO 2251 and ECO 2252.

ECO 3355 **Labor Economics (3)**
Employment, unionism, labor-management relations and human capital.
Prerequisite: ECO 2252.

ECO 3360 **Entrepreneurial Economics (3)**
This course presents a wide-ranging overview of the place of entrepreneurship in economic theory, with a special focus on applications to institutions, organizations, strategy, economic development, and related fields. An emphasis on historical pieces on the economics of entrepreneurship as well as modern applications will be studied.
Prerequisites: ECO 2251, ECO 2252.

ECO 3361 **Sports Economics (3)**
Sports Economics introduces essential core economic concepts and then develops them with examples and applications from the sports industry. The sections are devoted to illustrating prominent areas of economics: industrial organization, public finance, labor economics, and econometrics.
Prerequisites: ECO 2251, 2252.

ECO 3362 **Public Choice (3)**
Public choice applies economic tools and methodology to the study of public decision-making. The emergence of government, collective choice within government, effects of legislative structures on outcomes, the role of interest groups as compared to that of the median voter, rent-seeking, bureaucracy, regulation, the size and scope of government, and alternative forms of governance.
Prerequisites: ECO 2251, 2252.

ECO 3363 **Mathematical Economics (3)**
This course develops the mathematical treatment of theory of firm, household behavior, stabilization policy, growth theory, input-output analysis, and linear programming.
Prerequisites: ECO 2251, 2252, AND MTH 1125, or 2201.

ECO 3365 **History of Economic Thought (3)**
This course surveys the main schools in the history of the development of economic thought.
Prerequisite: ECO 2251, 2252.

ECO 4434 **International Economics (3)**
An advanced analysis of the principles underlying international trade and international finance. This course is for Economics Majors. Students who have taken ECO 4451 cannot take ECO 4434 for credit.
Prerequisite: ECO 2251 & ECO 3352.

ECO 4451 **Economics of Globalization (3)**
Principles underlying international trade and international finance.
Prerequisite: ECO 2252 & Lower-level core.

ECO 4452 **Environmental Economics (3)**
Theoretical and empirical examination of natural resource and environmental economics.
Prerequisite: ECO 2252.

ECO 4453 **Public Finance (3)**
An analysis of the principles underlying government expenditure and taxation programs presented from both a theoretical and a pragmatic perspective.
Prerequisite: ECO 2252.

ECO 4454 **Economic History: The Rise of the Western World (3)**
A study of the institutional factors that contributed to the Western world's economic growth.
Prerequisite: ECO 2251, 2252 and one introductory HIS course.

ECO 4455 **Comparative Economic Systems (3)**
An analysis of the economic systems of capitalism and socialism focusing upon how a multitude of specific nations in the Americas, Europe, and Asia, such as the United States, Mexico, Germany, Poland, Japan, and China, et al., arrange and conduct economic affairs in the 21st century.
Prerequisite: ECO 2251 or 2252.

ECO 4456 **The Economics and Moral Foundations of Capitalism (3)**
A study of the interrelationship between markets and morals. Investigates the role ethics and ethical ideas play in understanding economic life.
Prerequisite: ECO 2251, 2252.

ECO 4457 **Econometrics (3)**
A study of the methods used to empirically verify economic theory. Statistical inference applied to economic models, both micro and macro.
Prerequisite: ECO 2251, 2252 and QM 2241, or SS 3376, or MTH 2210.

ECO 4458 **Law & Economics (3)**
An economic analysis of the legal system that explores the efficiency of different legal decisions.
Prerequisite: ECO 2251, 2252.

ECO 4459 **Economics Seminar (3)**
Current problems in economics.
Prerequisite: ECO 3351 and ECO 3352.

ECO 4460 **Regional and Urban Economics (3)**
The economics of cities and urban problems and the effects of geographic location on the decisions of individuals and firms. The importance of location in everyday choices is easily assessed from our day-to-day lives, yet traditional microeconomic models are spaceless.
Prerequisites: ECO 3351,3352.

ECO 4461 **Austrian Economics (3)**
The historical and philosophical roots of the Austrian School, the impact it has had within the economics profession, and the unique insights it has provided in such areas as the theory of value, monetary theory, and business cycles.
Prerequisites: ECO 2251 and ECO 2252.

ECO 4462 **Game Theory (3)**
This course provides an introduction to game theory with applications to economics. Moreover, the course presents an approach to modeling a social situation as a game and develops techniques for solving the game in order to gain insight to individual behavior.
Prerequisites: ECO 2251, 2252, AND MTH 1125, or 2201.

ECO 4499 **Internship (3)**
The Economics Internship provides is a supervised work experience that provides students with the opportunity to gain applied work experience their field of study. Students with the opportunity to gain real-world experience in their field of study. Students are interviewed and selected by the individual companies offering the internship. This course may be repeatable and must comply with the SCOB internship policy. See the Economics division chair for details.

EDUCATION COURSES (EDU)

EDU 2220 **Introduction to International Education (3)**
This course is designed as a general introduction to the field of international education, broadly defined. In addition to exploring educational structures, philosophies and curricula of selected countries outside of USA, students will examine educational issues, challenges, and outcomes from a global perspective. Prominent issues related to education, including history, cultural traditions, politics, globalization, poverty, gender issues, and the legacy of colonization will be examined and discussed. Students will also explore and compare US education with the educational systems and contests of other countries.

EDU 2230 **Fundamentals of Teaching (3)**
The course is designed for students who are interested in pursuing careers in education. A minimum of 10 hours of field experiences is a required component of this course.

EDU 3303 **Educational Psychology and Classroom Assessment (3)**
Characteristics of the learner and the teaching-learning process. Theories of learning, instruction, and motivation, and their application to students in grades P-12.

EDU 3305 **Teaching with Technology (3)**
This course is designed to introduce prospective teachers to currently available technology and to

prepare them to use various media for their own education as well as in their professional careers. Students are expected to become comfortable in the use of various media and to explore the possibilities for the use of media in the classroom. Emphasis is given to ways in which multimedia can be used to meet the needs of the varying learning styles.

EDU 3308 Integrated STEM (3)
Science, technology, engineering, and mathematics (STEM) literacy is a critical component of 21st century education. The central tenet of STEM literacy is the preparation of people who are knowledgeable of the connections between the content and practices of the STEM fields. This course will foster students' abilities to teach in an integrative way through real world design based problems that both stimulate and teach students to think critically.
Note: should be taken semester prior to internship
Prerequisites: admission to TEP; must have taken or be concurrently enrolled in ELE 3361, ELE 3362
Co-requisite: EDU L308.

EDU L308 Integrated STEM Lab (1)
Science, technology, engineering, and mathematics (STEM) literacy is a critical component of 21st century education. The central tenet of STEM literacy is the preparation of people who are knowledgeable of the connections between the content and practices of the STEM fields. This course will foster students' abilities to teach in an integrative way through real world design based problems that both stimulate and teach students to think critically.
Note: should be taken semester prior to internship
Prerequisites: admission to TEP; must have taken or be concurrently enrolled in ELE 3361, ELE 3362
Co-requisite: EDU 3308.

EDU 3310 Introduction to Education (3)
This course provides a broad overview of education, teaching and schools, and an orientation to the Teacher Education Program. Multiple field experiences in school settings are required as part of the course.
This is a prerequisite course for most other education courses.

EDU 3390 Global Identity (3)
Studying abroad is a transformative experience that has the power to challenge our thinking and our perspective on the world. This course aims to attract students across disciplines, to promote interprofessional development, and to prepare them to expand their understanding of their global identity and communicate their growth in intercultural competence toward their personal and professional development. Students make connections between their study abroad experience and the broader range of skills connected with this experience, to become a competitive member of a global workforce.

EDU 4400 Classroom Management (3)
This course is designed for all education majors. The purpose of this course is to establish a foundation of content and application relative to classroom management and discipline, emphasizing reflection, decision making, and integrated teaching/learning strategies. Methodologies utilized will include discussion, lecture, field experience, case studies, problem solving sessions, projects, and research.

EDU 4471 Curriculum and Instructional Delivery (3)
This course offers a survey of school curricula, organizational patterns for school systems and classrooms. It is designed for Early Childhood Education, Elementary Education, Special Education, and Middle and Secondary Education majors. Various instructional strategies, major philosophies and learning theories are examined.
Note: should be taken semester prior to internship.
Prerequisite: admission to TEP.

EDU 4491-92 Guided Independent Research (1 to 3 credit hours)
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

EDU 4493-94 Guided Independent Study (1 to 3 credit hours)
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.".

EDUCATIONAL, ADMINISTRATION & LEADERSHIP (EAL)

EAL 3301 Education Leadership and Motivation in Adult Learning (3)
In this course, you will learn how to create a shared vision for your team and effectively communicate it to your teammates. You will also learn how to set effective goals and expectations in a way that best enables your team to attain the shared vision. Finally, you will understand the most important needs and drivers of performance across cultures, and will learn to align rewards with desired behaviors so that your teammates are motivated to attain the team's objectives. This course will help you diagnose and solve motivation problems so that you can bring out the best in your people.

EAL 4401 Problem Solving and Decision Making (3)
This course explores the application of effective problem solving and decision making strategies in the workplace. It examines involvement of stakeholders in decision processes, models for decision making, decision trees, risk analysis, and issues associated with implementation of decisions.

ELECTRONIC ENGINEERING TECHNOLOGY (EET)

EET 2210 Electronic Devices and Materials (3)
Topics covered include semiconductor energy band diagrams, bulk properties, conduction mechanism, Haynes-Shockley experiment, p-n junction characteristics, low frequency model, transient response and breakdown mechanism, Zener diode, step-recovery diode, tunnel diode, backward diode, Schottky diode, LED and photodiodes, and metal-semiconductor junctions. If time permits, selected topics from bipolar junction transistors, current flow, amplification, switching, metaloxide-semiconductor structures, MOSFETs, and device scaling will be covered as well.
Prerequisites: PHY 2263, PHY L263.

EET 2215 Analog Circuits and Systems (3)

Topics covered include semiconductor diodes, bipolar junction transistors and MOSFETs, half and full-wave rectifiers, filters, regulated power *supplies,* biasing circuits of BJT, FET, MOSFET, RC and DC coupled amplifiers, wide-band and tuned amplifiers, active impedance transformers, power amplifiers, impedance matching, feedback amplifiers, RC and LC oscillators, blocking oscillators, characteristics, limitations and applications of OP-AMPS, voltage regulators, timers, analog to digital converters and vice versa will be discussed as well.
Prerequisites: EET 2210.
Co-Requisites: EET L215.

EET L215 Analog Circuits and Systems Lab (1)
This course is focused on experimentation, design, analysis and verification of analog circuits. Lab topics include but are not limited to diodes, transistors, op-amps, and oscillators. Students will also learn to use various instrumentation to build and test analog circuits.
Co-requisites: EET 2215.

EET 3315 Digital Circuits and Systems (3)
Topics covered include design of combinational functions using standard logic gates, combinational functions, sums of product and product of sums representation, function minimization and realization concepts, prime implicants. Additional topics include advanced concepts in combinational circuits, decomposition of switching functions, modular realization of switching circuits, sequential functions and circuits, and memory elements.
Prerequisites: EET 2215, EET L215.
Co-requisites: EET L315.

EET L315 Digital Circuits and Systems Lab (1)
This course is focused on experimentation, design, analysis and verification of digital circuits. The lab topics include but are not limited to gate logics, adders, multiplexer/de-multiplexer, and counters. Students will also learn to use various devices to build and to test digital circuits.
Co-requisites: EET 3315.

EET 3320 Measurement and Instrumentation (3)
Topics covered include fundamental of units systems, precision and accuracy, errors in measurement and types of errors, electromechanical instruments, DC ammeters and voltmeters, AC ammeters and voltmeters, electrodynamometers in power measurements, bridge DC measurements, bridge AC measurements, transducers concepts and types, oscilloscope principles and applications in measurements.
Prerequisites: EET 2215, EET L215.

EET 4410 Signal Processing (3)
Topics covered include fundamental of units systems, precision and accuracy, errors in measurement and types of errors, electromechanical instruments, DC ammeters and voltmeters, AC ammeters and voltmeters, electrodynamometers in power measurements, bridge DC measurements, bridge AC measurements, transducers concepts and types, oscilloscope principles and applications in measurements.
Prerequisites: PHY 3320.

EET 4415 Automation and Control (3)
Topics covered include but are not limited to, the concept of control systems open-loop and closed-loop control, PI and PID controllers relays, transistors, thyristors, sensors, DC motor control, stepper motor control, programmable logic controllers (PLCs), and the applications of control systems.
Prerequisites: EET 3315, EET L315.

EET L415 Automation and Control Lab (1)
Lab course is focused on exercising the concepts learned in course titled automation and control. Students will learn to use motor control, PLCs, sensors, transistors etc., during the lab work.
Co-requisite: EET 4415.

EET 4420 Fundamentals of Microcontrollers
Topics covered include but are not limited to microcontroller architecture, instruction sets, programming and interfacing with electronic circuits, interrupts, microcontroller peripherals, microcontroller application development tools and platforms.
Prerequisites: EET 3315, EET L315.
Co-requisites: EET L420.

EET L420 Fundamentals of Microcontrollers Lab (1)
This course is focused on design, implementation and debugging of microcontroller based systems. Students will also learn about timers, ADC, wave generations, RC measurement etc. The course also has a project where students are expected to build and implement a microcontroller.
Co-requisite: EET 4420.

EET 4425 Data Communication and Networking (3)
Topics covered include but are not limited to microcontroller architecture, instruction sets, programming and interfacing with electronic circuits, interrupts, microcontroller peripherals, microcontroller application development tools and platforms.
Prerequisites: EET 3315, EET L315.

EET 4430 Optical Electronics (3)
Topics covered include devices and applications of optoelectronics, photonic waveguides, Gaussian beam propagation, interaction of light and matter, spontaneous and stimulated emission, laser rate equations, semiconductor lasers, optical detectors, amplifiers, modulators and switches.
Prerequisites: PHY 3359, PHY L359, EET 2210.

EET 4435 LSI/VLSI Design (3)
MOS Transistors – fabrication and characteristics. MOSFET scaling and short-channel effects. Layer representation and layout rules. Analysis and design of inverters and inverter based circuits. Circuit and interconnection delays, driving large loads. Dynamic logic circuits. Memories, VLSI design strategies – Full custom, Standard Cell and Gate Array design, FPGAs, Subsystem design. Testing and testability. CAD for VLSI.
Prerequisites: EET 2215, EET 3315.

EET 4440 Electronic Testing with Lab (4)
Topics include, identifying and reading electronic circuit diagrams, using electronic test equipment to analyze circuits, applying a systematic approach to fault finding, and location a range of faults to component level.
Prerequisites: EET 2215, EET 3315.

EET 4499 Electronic Engineering Technology Capstone (3)
Project base course that will incorporate ideas of deliverables, risk, cost and milestones. Project must terminate in a written report and a prototype of the deliverable.
Prerequisites: Permission of Instructor.

ELEMENTARY EDUCATION COURSES (ELE)

ELE 3360 Teaching Social Science (3)
This course provides a study of the varied dimensions of instruction in social sciences. Emphasis is placed on appropriate instruction and resources, including technology for the instruction of students in grades K-6.
Prerequisite: admission to TEP.
Co-requisite: ELE L360.

ELE L360 **Teaching Social Science Lab (1)**
This course includes Lab/Field-oriented experiences designed to enhance understanding of varied dimensions of instruction in social sciences.
Prerequisite: admission to TEP.
Co-requisite: ELE 3360.

ELE 3361 **Teaching Natural Science (3)**
This course provides a study of the varied dimensions of instruction in natural sciences. Emphasis is placed on appropriate instruction and resources, including technology for the instruction of students in grades K-6.
Prerequisite: admission to TEP.
Co-requisite: ELE L361.

ELE L361 **Teaching Natural Science Lab (1)**
This course includes Lab/Field-oriented experiences designed to enhance understanding of varied dimensions of instruction in natural science.
Prerequisite: admission to TEP.
Co-requisite: ELE 3361.

ELE 3362 **Teaching Mathematics (3)**
This course provides a study of the varied dimensions of instruction in mathematics. Emphasis is placed on appropriate instruction and resources, including technology for the instruction of students in grades K-6.
Prerequisites: admission to TEP, completion of MTH 2251 or MTH 2252 with a grade of C or better.
Co-requisite: ELE L362.

ELE L362 **Teaching Mathematics Lab (1)**
This course includes Lab/Field-oriented experiences designed to enhance understanding of varied dimensions of instruction in mathematics.
Prerequisites: admission to TEP, completion of MTH 2251 and 2252 with a grade of C or better.
Co-requisite: ELE 3362.

ELE 4454 **Internship Seminar for Elementary Education (3)**
This course provides seniors an opportunity during internship to examine 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.
Prerequisite: admission to TEP.
Co-requisite: ELE Internship.

ELE 4474 **Internship in Elementary Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: ELE 4454.

ELE 4491-92 **Guided Independent Research (1 to 3 credit hours)**
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

ELE 4493-94 **Guided Independent Study (1 to 3 credit hours)**
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.".

ENGLISH COURSES (ENG)

ENG 0096 **Fundamentals of Grammar and Sentence Writing (3)**
Developmental/remedial instruction in the basic elements of standard American English grammar, with an introduction to the essentials of effective written communication. Involves application of appropriate computer software. Students are placed in this course, ENG 1100 or ENG 1101, depending on placement exam score; see the local campus testing center for specific cut-off scores. Students may also be required to attend weekly sessions at a writing and/or computer center.
Note: Under no circumstance may this course be used to substitute for any general studies requirement; nor may it be used to meet minimum degree requirements. Grade of C or better and successful completion of exit exam required.

ENG 1100 **Preparatory English (3)**
Developmental/remedial instruction in composition and mechanical skills needed to write clear, effective sentences and paragraphs. Involves application of appropriate computer software and a variety of written activities. Students are placed in this course, ENG 0096, or ENG 1101 depending on placement exam score; see the local campus testing center for specific cut-off scores. Students may also be required to attend weekly sessions at a writing and/or computer center.
Note: Under no circumstances may this course substitute for any general studies requirement; nor may it be used to meet minimum degree requirements. Grade of C or better required.

ENG 1101 **Composition And Modern English I (3)**
Intensive instruction in the writing process. Focuses on organization of ideas in well-developed expository and argumentative essays (usually six to eight essays), with stress on grammar, punctuation, and vocabulary development. A grade of C or better is required for credit. Must be completed within first 30 hours of enrollment.
Prerequisite: Placement Testing.

ENG 1102 **Composition and Modern English II (3)**
Text-based analyses and application of principles and tools of research in writing short research papers. A grade of C or better is required for credit. Must be taken within first 30 hours of enrollment.
Prerequisite: ENG 1101 or equivalent.

ENG 1103 **Honors English Composition I (3)**
Introductory study and practice of composition for the superior student.
Prerequisite: Minimum English score of 27 on the ACT or 640 on the SAT, or recommendation by an 1101 instructor.

ENG 1104 **Honors English Composition II (3)**
Continuation of study and practice of composition for the superior student.
Prerequisite: Minimum grade of C in ENG 1103 or recommendation by a 1101 or 1102 instructor.

ENG 2205 **World Literature before 1660 (3)**
Introduction to attitudes, philosophies, and reflections of life in world literary masterpieces from the ancient world, Middle Ages, and Renaissance. Requires demonstration of acceptable writing skills.
Prerequisite: ENG 1102 or equivalent.

ENG 2206 **World Literature after 1660 (3)**
Introduction to attitudes, philosophies, and reflections of life in world literary masterpieces from the Enlightenment to the present. Requires demonstration of acceptable writing skills.
Prerequisite: ENG 1102 or equivalent.

ENG 2207 **Honors World Literature before 1660 (3)**
A course for the superior student, focusing on representative selections of the world's dramatic masterpieces in prose and poetry.
Prerequisite: ENG 1104 or permission of department chair.

ENG 2208 **Honors World Literature after 1660 (3)**
A course for the superior student, focusing on representative selections of the fictional masterpieces in Western literature.
Prerequisite: ENG 1104 or permission of department chair.

ENG 2211 **American Literature before 1875 (3)**
Study of works of selected writers in various American traditions and styles from colonial times to 1875.
Prerequisite: ENG 1102 or equivalent.

ENG 2212 **American Literature after 1875 (3)**
Study of works of selected writers in various American traditions and styles from 1875 to the present.
Prerequisite: ENG 1102 or equivalent.

ENG 2244 **British Literature before 1785 (3)**
A survey of British literature from its beginning to 1785.
Prerequisite: ENG 1102 or equivalent.

ENG 2245 **British Literature after 1785 (3)**
A survey of British literature from 1785 to the present.
Prerequisite: ENG 1102 or equivalent.

ENG 2260 **Introduction to Technical and Professional Writing (3)**
Technical communications for science, business, and professional work. Emphasis on writing for specific purposes to particular audiences in an organizational setting. Preparation of documents such as technical description of a mechanism or process, instructions, recommendations, reports, and resumes.
Note: course is a prerequisite for all required 3300and 4400-level courses in the Professional Writing Emphasis. Students may take elective courses concurrently with this course.

ENG 3301 **Women's Literature (3)**
Representative works of literature by women.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3305 **Folklore/Mythology (3)**
A multicultural survey of the forms and varieties of the mythology and folklore of major western cultures, emphasizing stories of Scandinavian, German, British, and American origin, and the application of these forms in modern cultures and literature. This course is recommended for English teachers seeking middle school certification.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3310 **Fiction and Film (3)**
Representation of fiction on film, with attention to visual techniques and the translation and representation of major literary themes.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3315 **Modern Drama (3)**
Study of plays written between 1900 and the present. List of plays may vary with each offering.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3320 **Introduction to Linguistics (3)**
Overview to linguistics, the scientific study of language. The course will acquaint students with the grammatical, social, biological, and technological applications of language.
Prerequisites: ENG 1101, 1102.

ENG 3326 **Science Fiction (3)**
An exploration of the literary, social, and generic importance of science fiction.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3341 **Advanced Grammar I (3)**
Detailed study of the structural system of English grammar.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3345 **Technical and Professional Editing (3)**
Principles and practices of editing technical and scientific documents. Overview of the editing process; defining the editor's rules and responsibilities, revising at structural and sentence levels, and addressing stylistic conventions of technical fields. Includes technical and scientific documents such as reports, proposals, and user manuals.
Prerequisite: ENG 2260 or permission of instructor.

ENG 3351 **Introduction to Creative Writing I (3)**
Practice in writing poetry, short stories, and/or plays, along with a concentrated study of the techniques and principles of creative writing in each genre.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3352 **Advanced Creative Writing I (3)**
Continued practice in writing poetry, short stories, and/or plays, along with a more advanced study of the techniques and principles of creative writing in each genre.
Prerequisite: six semester hours of 2000-level English courses; ENG 3351 or permission of instructor.

ENG 3353 **Advanced Creative Writing II (3)**
Practice in writing poetry, short fiction, or plays for class and instructor evaluation.
Prerequisite: six semester hours of 2000-level English courses; ENG 3351 or permission of instructor.

ENG 3354 **Advanced Nonfiction Writing (3)**
The literature of fact. Emphasis on student writing and analysis of nonfiction forms, such as personal narrative, autobiography, lyric in prose, and New Journalism.
Prerequisite: six semester hours of 2000-level English courses; ENG 3351 or permission of instructor.

ENG 3355 **Verse Writing (3)**
Development of techniques in the practice of poetry, including expression through metrical patterns, rhyme, rhythm, imagery, metaphor, and symbolism.

Prerequisite: six semester hours of 2000-level English courses; ENG 3351 or permission of instructor.

ENG 3356 **Form and Theory of Fiction (3)**
Primarily a reading course for writers. Examination of the classic texts of literary theory; analysis of the use and purpose of the elements of fiction; and discussion of fiction form, from the short-short to hyper-text.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3357 **Form and Theory of Nonfiction Literature (3)**
Examination of 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 course offering.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3362 **The Arthurian Legend through the Ages (3)**
Examination of Arthur not only in literary and historical works from its earliest traces in the Middle Ages to the present, but also in archaeology, the visual and decorative arts (especially painting and sculpture), manuscript decoration, film, musical, and opera.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3365 **Advanced Technical & Professional Writing (3)**
Study of technical communication as a dynamic process in organizational and social environments, including the manner in which organizational hierarchies, purposes, and stylistic conventions interact with the writing process. Professional literature and professional associations concerned with improving communications within students' disciplines.
Prerequisite: ENG 2260 or permission of instructor.

ENG 3366 **Professional Document Design (3)**
Overview of the fundamental concepts and techniques of information design and production for both print and online documents, including the coordination of text, typography, and graphics; principles of audience analysis, usability, and readability; and an introduction to computer software for desktop publication and web design.
Prerequisite: ENG 2260 or permission of instructor.

ENG 3371 **Literature for Adolescents (3)**
Principles of and practice in the selection of literature for upper-elementary and for junior and senior high school students, with attention given to multicultural literature.
Note: No credit toward English major or minor. Credit applied only to middle school education certification program in English.
Prerequisite: six semester hours of 2000-level English courses.

ENG 3380 **Sociolinguistics: Language, Culture and Society (3)**
The study of the relations of language to culture and society, inclusive of regional, social, and stylistic variation, as well as gendered discourse. The course will introduce students to the socio-cultural factors in language varieties.

ENG 3385 **Foundations of Second Language Acquisition (3)**
Learning theory, acquisition barriers, various methodologies, communicative approaches and competence, and applied linguistics, including the practical issues of L2 learning.

ENG 4400 **Selected Topics in Literature and/or Professional Writing (3)**
Study of a topic of special interest and importance not covered in regularly offered courses in English.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4401 **Chaucer (3)**
Study of Chaucer's major poetry.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4402 **Studies in Medieval Literature (3)**
Study of non-Chaucerian British literature from the Middle Ages, including Beowulf, Piers Plowman, Sir Gawain and the Green Knight, mystery plays, Le Morte d'Arthur, and other works.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4403 **English Renaissance Literature (3)**
English prose and poetry of the 16th and 17th centuries with an emphasis on Sidney, Spenser, Donne, and Jonson.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4404 **Milton (3)**
Milton's poetry and major prose.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4405 **History of the English Language (3)**
Study of the development of English from the Anglo-Saxon period through the present, with reference to the Indo-European background of English.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4406 **Studies in British Literature Before 1660 (3)**
Selections from Medieval and/or Renaissance British literatures, including classical, historical, and cultural background.
Prerequisite: six semester hours of 2000-level English course.

ENG 4407 **Fantasy Literature (3)**
This course will introduce the student to a wide range of Fantasy literature from the Middle Ages to Modern times. This course will discuss allegory and other subgenres that use fantastic elements that alter reality as we know it in order to concentrate on a very real problem in the human condition, especially when no better way exists for an author to make the point.
Prerequisites: Six semester hours of 2000-level English courses.

ENG 4410 **Studies in Eighteenth-Century British Literature (3)**
Selections from Restoration and 18th-century British literature and its historical and cultural background.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4413 **Studies in Nineteenth-Century British Literature (3)**
Study of Romantic and/or Victorian literatures.
Prerequisite: six semester hours of 2000 level English courses.

ENG 4414 **British Novel Before 1900 (3)**
Representative novels by British writers of the 18th and 19th centuries.
Prerequisite: six semester hours of 2000-level English courses.

ENG 4415 **American Renaissance (3)**
Selections from the major writers of the American literary renaissance, including such writers as Emerson, Thoreau, Hawthorne, Melville, Whitman, and Dickinson.

Prerequisite: six semester hours of 2000-level English courses.

ENG 4416 **Nineteenth-Century American Novel (3)**
Study of representative American novels of the 19th century.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4417 **Modern Short Story (3)**
Examination of 20th and 21st century short stories. List of stories may vary with each offering.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4418 **British Culture on Location (3)**
An intensive presentation of British culture on-site in London, Oxford, and other important British locations.

ENG 4419 **Advanced Writing (3)**
Provides students the opportunity to write, review, and evaluate texts relevant to the professions they plan to enter and to apply rhetorical analysis to specific writing situations.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4420 **Selected Topics in Creative Writing (3)**
Study of a topic of special interest and importance not covered in regularly offered courses in creative writing.
Prerequisites: Six semester hours of 2200-level English courses; ENG 3351 or permission of instructor. Note: may be taken for credit no more than two times.

ENG 4421 **English Novel (3)**
Selected 18th,
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4425 **Modern Novel (3)**
Study of representative novels written in English in the 20th and 21st centuries.
Prerequisites: Six semester hours of 2000-level English courses.

ENG 4426 **Modern Poetry (3)**
Study of 20th- and 21st-century poetry.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4427 **Contemporary American Literature (3)**
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.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4428 **The Age of Johnson (3)**
A study of the works of Samuel Johnson and of his most important contemporaries, from about 1745 to 1798.
Prerequisite: Six semester hours of 2000-level English courses

ENG 4430 **Shakespeare I: The Tragedies (3)**
Study of major and minor tragedies, with some attention to non-dramatic poetry. List of plays may vary with each offering.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4431 **Shakespeare II: The Comedies (3)**
Study of comedies and romances. List of plays may vary with each offering.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4432 **Shakespeare III: The Histories (3)**
Study of history plays, especially those concerning Wars of the Roses. List of plays may vary with each offering.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4433 **Literary Criticism (3)**
Study of the major literary critics and their works from classical times to the present.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4434 **Romantic Period in English Literature (3)**
Romantic prose and poetry with emphasis on the writings of Blake, Coleridge, Wordsworth, Byron, Keats, and Shelley.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4435 **The Bible as Literature (3)**
A detailed study of the literary components, composition techniques, and inclusion factors ins elected works from the New and Old Testaments.
Prerequisite: Six semester hours of 2200-level ENG courses.

ENG 4443 **Southern Literature (3)**
Study of works by writers from the American South from colonial times to the present.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4445 **Global Anglophone Literature (3)**
Introduces students to a variety of literary masterpieces that explore global writings in English by authors who are not from Europe and North America. This course will explore issues concerning the nativazation of English, exile and migration, and the postcolonial concept of the "empire writing back" to its center.
Prerequisites: Six semester hours of 2000-level English courses.

ENG 4452 **Medieval and Renaissance English Drama (3)**
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.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4453 **English Drama through the 18th Century (3)**
English drama (excluding Shakespeare) from the 9th through the 18th century.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4455 **Multicultural Literature (3)**
A thematic study of minority American writers of various diasporic backgrounds. Works will include fiction and non-fiction by first/second generation immigrants in the United States including those of Native American People, in view of showing how they have contributed to the contemporary multicultural American landscape.
Prerequisites: Six semester hours of 2200-level ENG courses.

ENG 4460 **Victorian Poetry (3)**
A study of Victorian poetry, with emphasis upon the works of Tennyson, Browning, Arnold, and Hardy.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4461 **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.

Prerequisite: Six semester hours of 2000-level English courses.

ENG 4465 African American Literature (3)
Study of the major African American writers from the beginning of American history to the present.
Prerequisite: Six semester hours of 2000-level English courses.

ENG 4466 Advanced Grammar II (3)
Advanced Grammar II: Descriptive constituent analysis of syntax in the context of generative grammar its relation to syntactic structures and to sentential meaning (semantics), including error/ contrastive analysis, and to pragmatics and discourse analysis.
Prerequisite: ENG 3341

ENG 4468 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, audio lingual 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 4470 Practicum and Assessments (3)
Overview of assessments and application of skills, concepts and principles in supervised experiences related to teaching ESL students. The Practicum is required for the TESOL Certificate.
Prerequisite ENG 4468

ENG 4474 Internship in English/Language Arts Education (9)
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454.

ENG 4478 Theory and Practice of Composition: Writing and Learning Across the Curriculum (3)
A study of the methodology of teaching English composition and practice in advanced writing
Prerequisites: Six semester hours of 2000-level English courses.

ENG 4481 Methods and Materials for the Secondary Teacher (3)
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of English language arts materials for grades 6-12 will be covered in detail. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

ENG 4488 Seminar in Professional Writing Portfolio Development (3)
Senior seminar. and development of a professional portfolio containing carefully selected materials that demonstrate seniors' mastery of specific writing capabilities and skills.
Prerequisite: senior class standing, ENG 2260, and completion of at least three required courses and three electives in the major, or permission of instructor.

ENG 4489 Internship (3)
Practical experience involving writing and editing skills while working under the supervision of the Alabama Literary Review staff.
Prerequisite: ENG 3352, 3353 or permission of instructor.

ENG 4490 Professional Writing Internship (3)
Writing Practicum/Internship at a local industry, publisher, arts or public agency. Provides workplace experiences in solving problems in writing, including those of career preparation and development.
Prerequisite: ENG 2260, and completion of at least three required courses and three electives in the major, or permission of instructor.

ENG 4491-94 Guided Independent Research and Study (3)
Thorough examination of material on a selected subject, requiring a documented research paper. Additional information indexed under "Guided Independent Research and Study."
Prerequisite: six semester hours of 2000-level English courses. Note: Students who need regimentation of regular classroom to do good academic work should not attempt these courses. Also see index for "Independent Study and Research.".

ENG 4495 Senior Seminar in English (3)
A senior-level course capstone designed to engage the student with the central questions of literary studies and to develop the student's skills in critical thinking and writing and in research. Must make a grade of C or better.
Prerequisite: senior status.

ENG 4498-99 Honors Research and Writing (1 credit hour per course per semester)
The above courses are designed for outstanding students majoring in English. Taken collectively, they constitute the English upper-level honors program in which students may specialize in a selected area of literary study. Upon successful completion of all course work and other requirements, the student will be recognized as a graduate with English honors.
Prerequisite: junior or senior level, grade point average no less than 3.2 in English studies and completion of the English honors application procedure. Consult the department chair for additional information.

ENGLISH AS A SECOND LANGUAGE (ESL)

For more information, see the index for English as a Second Language Program.

ESL 1100 Preparatory English *Nonnative Speakers of English* (3, with petition)
Instruction for nonnative speakers of English preparing for ENG 1101. Focus on application of rules of standard English grammar and U.S. composition patterns. Involves application of appropriate computer software and a variety of written activities. Students who do not pass the eWrite text are placed in this course. Students write five to seven in-class compositions and may be required to attend weekly session at the ESL Tutoring Center and ESL Computer Lab. Classes meet four days per week.
Note: This course will not substitute for any general studies requirement and will not be used in meeting minimum degree requirements.

ESL 1102 Listening/Speaking VI *Advanced*
Academic focus: listening strategies for academic lectures, such as anticipating and organizing information; understanding connecting words and

pronoun referents; recognizing analogy, quotations, and paraphrasing. Skill-building exercises include listening for main ideas, making inferences, listening for specific information, summarizing, and recognizing vocabulary in context. Speaking focuses on delivering oral presentations, engaging in academic discourse. Computer Lab requirement.

ESL 1104 **Reading VI *Advanced***
Helps the students be ready for academic reading. Vocabulary building through brainstorming, vocabulary lists, and close exercises that help learners guess the meaning from context and see regularity in the language. Introduces students to the lifestyles, attitudes, customs, and traditions of Americans. Reading Lab requirement: one hour per week.

ESL 1106 **Grammar VI *Advanced***
Review, expansion, and practice of auxiliaries and phrasal verbs, gerunds and infinitives, introduces adverbs and adverb clauses, noun clauses (subjects and objects), unreal conditionals and other ways to express unreality, and the subjunctive, inverted and implied conditionals. Includes in-depth analysis of sentence structure: sentence types, sentence fragments, parallelism of gerunds and infinitives, sentence and fragments, writing direct and indirect speech, and avoiding run-ons and comma splices. Independent CD-based exercises on topics covered in 1106 – two hours per week.

ESL 1108 **Writing VI *Advanced***
Focus on essay construction. Emphasis is placed on coherence, unity, and writing well-developed and well-organized essays. Explores different rhetorical patterns (chronological order, logical division of ideas, cause-effect, comparison/contrast, etc) as means to the end in fulfilling academic writing assignments. Study of different ways to organize and present ideas for different groups of readers. Emphasis on writing as a process, with frequent group work to generate ideas and practice peer editing. Writing Lab requirement: one hour per week.

FINANCE COURSES (FIN)

FIN 2210 **Personal Financial Planning (3)**
Introduction and comprehensive overview of personal financial planning. Topics include introduction to financial planning, managing assets, credit, insurance, investments, retirement and estate planning.

FIN 3331 **Managerial Finance (3)**
Analysis, planning and control of key financial decisions of the firm.
Prerequisites: Lower-level Core, ACT 2291, MTH 1112, and QM 2241.

FIN 3332 **Financial Management II (3)**
Second course in a sequence of corporate finance. Continuation of FIN 3331 with focus on topics in financial management not covered in FIN 3331.
Prerequisites: FIN 3331.

FIN 3333 **Financial Mathematics (3)**
Analysis of time value of money as it applies to loans, securities, banks, annuities, and insurance.
Prerequisite: MTH 1112.

FIN 3334 **Financial Statement Analysis (3)**
The process of understanding financial statements by financial analysts and credit analysts, and other uses of financial data.
Prerequisite: FIN 3331.

FIN 3336 **Real Estate Finance I (3)**
Procedures and operations of real estate mortgage markets.
Prerequisite: FIN 3331.

FIN 3360 **Entrepreneurial Finance (3)**
This course covers financial issues related to entrepreneurship. The focus is on how to apply financial tools and skills to entrepreneurial businesses. The topics covered in this course include financial management and planning, financial statement analysis, time value of money, capital budgeting, working capital management and sustainability.
Prerequisites: FIN 3331, MGT 4475.

FIN 4419 **Derivatives (3)**
This course examines theory and usage of forward contracts, future contracts, index futures, Markov and Wiener processes, Black Scholes analysis, options, Indexed options, and hedging using naked and covered positions, and other nonstandard derivative securities.
Prerequisite: FIN 3331.

FIN 4431 **Intermediate Financial Management (3)**
Analysis of financial management of a firm at the intermediate level, with emphasis on the corporation. Includes more advanced analysis of topics covered in FIN 3331 as well as other advanced topics**.**
Prerequisites: FIN 3331.

FIN 4432 **Investments (3)**
Financial analysis of investments, including markets, institutions, and instruments with emphasis on security analysis, portfolio analysis, and financial planning.
Prerequisite: FIN 3331.

FIN 4434 **Financial Modeling (3)**
This course provides an examination of standard financial models used in corporate finance, financial statement stimulation, portfolio problems, options, portfolio insurance, duration, and immunization. The primary focus of study is on the application of strategic models of decision making and marketplace activity within the stimulated environments which approximate real time.
Prerequisite: FIN 4432.

FIN 4435 **International Finance (3)**
A comprehensive introduction and overview of international finance with emphasis upon multinational corporation management, international trade, foreign exchange, and international financial markets, institutions, and instruments.
Prerequisite: FIN 3331.

FIN 4436 **Securities Analysis (3)**
Introduction and comprehensive overview of securities analysis. Topics include stocks, bonds. Mutual funds, taxes, annuities, new issues, IPOs, OTC, exchanges, options, margin trading, short selling, laws and regulations, and fundamental technical, and modern security and portfolio analysis techniques.
Prerequisite: FIN 4432

FIN 4437 **Financial Institutions (3)**
A comprehensive study of financial markets, institutions, instruments, etc.
Prerequisite: FIN 3331.

FIN 4438 **Bank Management (Capstone) (3)**
Introduction and comprehensive overview of bank management. Topics include: organization, regulation, performance, asset management, liabilities management, credit policy, loan evaluation, global banking, bank mergers and acquisitions, etc.
Prerequisites: FIN 4431, and FIN 4437.

FIN 4440 **Real Estate Finance II (3)**
Second course in a sequence on real estate finance. Continuation of FIN 3336.
Prerequisite: FIN 3336

FIN 4454 **Public Finance (3)**
This course examines and analyses public finance from the perspective of the financial management of governmental enterprises. It examines revenues and expenditures at all levels of government, the financial management of government enterprises, and effects of public finance on business and finance and personal finance.
Prerequisite: FIN 3331.

FIN 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course.

FIN 4493-94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course.

FIN 4499 **Internship (3)**
The Finance Internship provides is a supervised work experience that provides students with the opportunity to gain applied work experience their field of study. Students with the opportunity to gain real-world experience in their field of study. Students are interviewed and selected by the individual companies offering the internship. This course may be repeatable and must comply with the SCOB internship policy. See the Economics/ Finance division chair for details.

FIRE SCIENCE AND EMERGENCY MANAGEMENT COURSES (FS)

FS 3300 **Introduction to Fire Science (3)**
An Introduction to the science of public fire protection, with a review of the role, history and philosophy of the fire service in the United States. Includes career orientation and a discussion of current and future problems in fire protection. Note: This class is offered as an Internet-based class and as a classroom-based class.

FS 3305 **Community Risk Reduction for Emergency Services (3)**
This course provides an overview of Community Risk Reduction in which the student will be able to identify risks and hazards as well as develop programs to help prevent or mitigate manmade and natural incidents and disasters. The course will examine current issues affecting the health and safety of communities and develop a plan to apply learned methodologies to reduce risk. Case studies, exercises are discussions will be used to encourage critical review of the philosophy and application of community risk reduction. This course addresses the development of risk matrices, identification of community health threats and developing initiatives to help lower exposure to the risks identified.

FS 3310 **Fire and Emergency Services Administration (3)**
This course provides an overview for fire and emergency services administration. This course demonstrates the importance of the following fundamental concepts necessary to effectively manage and lead a fire and emergency services organization while dealing the challenges and changes of the 21st century. Accountable budgeting, Anticipation of challenges, Organizational management, Persuasion and influence, Organizational changes, Analytical problem solving. A central part of the course focuses on how the leadership of a fire and emergency services organization develops and maintains both internal and external cooperation to create a coordinated approach to achieving the organization's mission.

FS 3315 **Financial Management in Fire and Emergency Services (3)**
This course introduces principles and practices of budget and finance, and combines them with the methods and techniques of both oral and written communication. The course is intended to prepare students for tasks and challenges related to fire and emergency services financial management, and to effectively communicate those business-related matters through either presentations or documents. This course equips students with competence in the use of budgeting terminology, innovations in budget preparation, and the linkage of the role of technology in shaping budget preparation and administrative implementation. The focus is to have the student appreciate the importance of sound fiscal budgetary practices within the fire and emergency service settings and the ability to present presentations professionally.

FS 3320 **Arson Investigation (3)**
An analysis of incendiary fire investigation from the viewpoint of the field investigator, with an emphasis on the value of various aids and techniques in the detection of arson, collection and preservation of evidence, investigation, interrogation, related laws of arson, court appearance and testimony.

FRENCH COURSES (FRN)

Note: For additional information, see Placement in Academic Courses.

FRN 1101 **Introductory French I (3)**
Introduction to the French language and culture.

FRN 1102 **Introductory French II (3)**
Introduction to the French language and culture.
Prerequisite: FRN 1101 or permission of instructor.

FRN 2201 **Intermediate French I (3)**
Reinforcement of fundamental skills, study of sophisticated language structures and reading of simple French prose and poetry.
Prerequisite: FRN 1102 or permission of instructor.

FRN 2202 **Intermediate French II (3)**
Reinforcement of grammatical skills, reading of simple French prose and poetry, composition and conversation.
Prerequisite: FRN 2201 or permission of instructor.

FRN 3310 **French Culture on Location I (3-TBA)**
An in-depth presentation of French culture combining lectures, readings, films, audiotapes, discussions and intensive language practice on the Troy Campus with on-site visit to a Francophone environment.
Prerequisite: Permission of instructor.

FRN 3311 **French Culture on Location II (3-TBA)**
An in-depth presentation of French culture combing lectures, readings, films, audiotapes, discussions and intensive language practice on the Troy Campus with on-site visit to a Francophone environment.
Prerequisite: Permission of instructor.

FRN 4491/92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

FRN 4493/94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

SURVEYING AND GEOMATICS SCIENCES

COURSES (GEM)

GEM 1100 **Computer-Aided Drafting I (2)**
This course gives students basic skills using computer-aided drafting software in fundamental two dimensional drafting and design, and advanced techniques in three-dimensional geometric modeling.

GEM 1101 **Computer-Aided Drafting II (2)**
This course gives students skills in surveying drafting, map components, and fundamental skills in drafting basic surveying features using computer aided software.

Prerequisite: GEM 1100.

GEM 2220 **Basics of Surveying (3)**
This course provides each student an introduction to measurement theory, instrumentation, measurement systems, measurement computations, data accuracy and precision. The structure of the field of geomatics is explored. Major components of the course are survey statistics, traverse computations, coordinate systems and datums, elevations, and mapping. The use of computer-aided drawing software to produce maps and plats is required.
Prerequisites: MTH 1114.
Co-requisite: GEM L220.

GEM L220 **Basics of Surveying Lab (1)**
This field laboratory provides the opportunity to use instrumentation to make the necessary measurements to produce computed products. Focuses on the use of a field book to record measurements, the analysis of field measurements, and the use of survey instrumentation.
Co-requisite: GEM 2220.

GEM 3309 **Land Survey Principles (3)**
The course includes the basic principles of land tenure and the cadaster with the major component being the study and application of survey statute and related case law. The concepts underlying the hierarchy of evidence, sequential versus simultaneous conveyances, adverse possession, riparian rights, land descriptions, and the U.S. Public Land Survey System are explored.
Prerequisite: GEM 2220.
Co-requisite: GEM L309.

GEM L309 **Land Survey Principles Lab (1)**
This laboratory explores the impact of land survey law on the practice of surveying and mapping in the state of Alabama. Focuses on the practice of writing legal descriptions, the structure of the U.S. Public Land Survey System, and courthouse research.
Co-requisite: GEM 3309.

GEM 3310 **Land Survey Practice (3)**
The issues of boundary location and retracement are central to this course. Focuses on Alabama survey history, the practice of surveying in Alabama, professional ethics, and the Standards of Practice for Surveying in Alabama.
Prerequisite: GEM 3309.
Co-requisite GEM L310

GEM L310 **Land Survey Practice Lab (1)**
Students will participate in surveys of sectionalized land in Pike County. Section corners, quarter corners and other evidence will be located using GPS and traditional surveying methods. Students will also be assigned a township research project and will present the research results to the class.
Co-requisite: GEM 3310.

GEM 3330 **Advanced Measurement Analysis (3)**
Survey equipment calibration, instrumentation error, topographic mapping, control leveling, instrumentation error, and the propagation of error through survey calculations. This course is the second course of a one-year study of survey fundamentals.
Prerequisite: GEM 2220.
Co-requisite: GEM L330.

GEM L330 **Advanced Measurement Analysis Lab (1)**
Field laboratory experience using EDMI calibration baselines, conducting topographic mapping projects and control level loops, and testing for instrument errors. The student is introduced to the field use of data collectors.
Co-requisite: GEM 3330.

GEM 3366 **Photogrammetry and Remote Sensing (3)**
Introduction to metrical photogrammetry, interpretative photogrammetry, and remote sensing. Focuses on the theory, instrumentation, and practical application of photogrammetry to the problem of mapping the earth's surface. Remote sensing concepts, principles, sensors, and specific satellite platforms are covered in the course. Hands-on exercises are given that makes use of software to create stereo models, orthophotos, and perform image processing.

GEM 3379 **Introduction to Least Squares Adjustment (3)**
The theoretical principle of error propagation and least squares adjustment theory to compute optimized solutions to geomatics problems involving redundant data. The use of mathematical scripts and least squares software to solve spatial data adjustment problems in land surveying and geomatics applications.
Prerequisites: MTH 1125, MTH 2210, GEM 3330.

GEM 3390 **Fundamentals of Geographic Information and Analysis (3)**
This course is the first course in a one-year study of the fundamentals of Geographic Information Systems (GIS). Topics of study are digital mapping, data capture, data conversion, data structures, and spatial data concepts. Hands-on exercises are included using some of the common GIS software.

GEM 3391 **Application of Geospatial Information Science (3)**
This course provides a study of common applications of GIS. The course provides further study in database design, digital base map analysis and testing, and spatial analysis. Hands-on exercises are included using some of the common GIS applications.
Prerequisite: GEM 3390.

GEM 3395 **Cooperative Work Experience I (1)**
The course provides students with experience working with an employer approved for the Cooperative Work Experience component of the Surveying and Geomatics Sciences Program. The student is expected to submit a written and oral report to the faculty member directing the project, detailing the work experience.
Prerequisites: GEM 2220, 2.0 overall grade point average, and approval of the Geomatics Program Director.

GEM 4405 **Route and Construction Surveying (3)**
Explores the theoretical foundations of route and construction surveying. Course topics are coordinate geometry (COGO), horizontal and vertical curve models, spirals, alignments, stationing, cross sections, areas, volumes, and route design elements.
Prerequisites: GEM 3330.
Co-requisite: GEM L405.

GEM L405 **Route and Construction Surveying Lab (1)**
This field laboratory applies the principles of route and construction surveying, the use of civil design software, and the use of data collectors for practical design and field layout.
Co-requisite: GEM 4405.

GEM 4407 **Land Development (3)**
Explores the concepts and problems associated with the design and construction of subdivisions and related infrastructure.
Prerequisites: GEM 4409.
Co-requisite: GEM L407.

GEM L407 **Land Development Lab (1)**
This computer laboratory provides the student the opportunity to design and create those drawings necessary for local government approval of the typical subdivision.
Co-requisite: GEM 4407.

GEM 4408 **Geodesy and Geodetics (3)**
Focuses on mathematical models of the earth, survey astronomy, the earth's gravity field, and coordinate systems, and geodetic reference framework. Important skills developed in this course include coordinate and datums transformations, map projections, astronomic observation, geodetic computations, surveying network design, and geodetic control survey.
Prerequisites: MTH 1125.

GEM 4409 **Hydrology (3)**
Explores several models used to compute runoff estimates based on particular rainfall events. Course topics are the hydrologic cycle, rainfall intensity, runoff models, hydrographs, storm sewer design, culvert design, open channel flows, watershed delineation, water detention and retention structures, and onsite sewage disposal systems.
Prerequisite: GEM 3330.
Co-requisite: GEM L409.

GEM L409 **Hydrology Lab (1)**
Compute peak runoff estimates, and open channel designs. Computer models are explored with respect to solving and presenting peak runoff solutions. A design project involving the use of large-scale topographic maps will be assigned.
Co-requisite: GEM 4409.

GEM 4410 **Introduction to Global Positions (GPS) (3)**
Introduction to history and development of GPS and global navigation satellite systems (GNSS); GPS signals and observables; basic principles of GPS operations; GPS error analysis, GPS survey methods and procedures; and GPS data collection, processing; and GPS applications to Geomatics.
Prerequisite: GEM 3390.

GEM 4490 **Geomatics Capstone (1)**
This course prepares students for the national Fundamentals of Surveying exam to cover all aspects of the exam.
Prerequisite GEM 4409, MTH 1126.

GEM 4493 **Guided Independent Study (1-3)**
Supervised study through creative field and laboratory projects in the Surveying and Geomatics field. A written request is to be submitted to the guiding professor and Program Director at least two weeks in advance of the term in which the study is to be undertaken. This study is NOT to be used to repeat a course for which a grade of 'D' or below has been earned. Application forms are available in the office of University Records. For more information see index for "Independent Study and Research".
Prerequisites: GPA of 3.0, permission of guiding professor, approval of Geomatics Program Director, Department Chair, and Dean.

***GEM* 4494** **Guided Independent Study (1-3)**
Supervised study through guided readings, creative endeavors in the Surveying and Geomatics field. A written request is to be submitted to the guiding professor and Program Director at least two weeks in advance of the term in which the study is to be undertaken. This study is NOT to be used to repeat a course for which a grade of 'D' or below has been earned. Application forms are available in the office of University Records. For more information see index for "Independent Study and Research".
Prerequisites: GPA of 3.0, permission of guiding professor, approval of Geomatics Program Director, Department Chair, and Dean.

GEM 4496 **Cooperative Work Experience II (1)**
The student must be in residence at Troy University for a minimum of one semester after completion of GEM 3395 before leaving for cooperative work experience under GEM 4496. The student is expected to submit a written and oral report to the faculty member directing the project, detailing the work experience.
Prerequisites: GEM 3395 and approval of the Geomatics Program Director.

GEM 4499 **Geomatics/GIS Projects (2)**
This course offers the Geomatics/GIS student the opportunity to apply the fundamental principles and concepts learned in the study of Geomatics/GIS to a particular problem or project. The student will state the problem, design an experiment to test a hypothesis concerning the problem statement, take the measurements, array the data, analyze the data, state conclusions, and write a final report based on the analysis and conclusions.
Pre-requisite: GEM 4409.

GEOGRAPHY COURSES (GEO)

GEO 2210 **World Regional Geography (3)**
Physical and cultural features, economy, and populations of the geographic regions of the world.

GEO 2299 **Basic GIS (3)**
This course is for students who are interested in learning the basics about Geographic Information System (GIS) and use of this powerful technology to create maps, collect data, and perform advanced analysis. This course is designed for a broad audience.

GEO 3300 **Principles of Physical Geography (3)**
Earth geography including climate, soils, natural vegetation, water resources, rocks, minerals, and surface structures.

GEO 3301 **Principles of Cultural Geography (3)**
Interrelationship of geographical elements in various world situations.

GEO 3307 **Geography of Europe (3)**
Selected topic studies in the physical and cultural environment, resource distribution, economy, and population characteristics of the European-Slavic land areas. Special attention will be devoted to the study of the geo-political influence of this area or least developed nations and the U. S.

GEO 3309 **GIS/Spatial Data Applications in Criminal Justice (3)**
An introduction to the use of spatial data applications in a wide range of real world policing endeavors; i.e., monitoring sexual predators, traffic accident reporting and modeling, crime scene analysis. One field trip to the Department of Public Safety in Montgomery, Ala. is required.

GEO 3312 **Geography of Latin America (3)**
An analysis of the major physical and cultural aspects of Middle and South America.

GEO 3326 **Geography of the Russian Realm (3)**
An analysis of the physical and cultural aspects of Russia and the other former republics of the Soviet Union.

GEO 3331 **Geography of the Middle East and North Africa (3)**
Physical setting, resource distribution, economy, population characteristics, and geopolitical importance of the region.

GEO 3350 **Weather and Climate (3)**
A study of the physical properties of weather and climate.

GEO 4402 **Political Geography (3)**
Analysis of the reciprocal effects of geography and political organization on the behavior of states including boundaries and frontiers, national resources, spatial strategy, and maritime power.

GEO 4403 **Conservation (3)**
The conservation of natural and human resources with emphasis on population expansion as the major element in changing ecology.

GEO 4404 **GIS/Spatial Data Applications in Economics (3)**
An introduction to the use of spatial data applications in the fields of business and economic development, including site selection and analysis of customer characteristics.

GEO 4406 **Urbanism (3)**
Historical, physical, economic, and societal evolution of the urban area. American metropolitan problems and implications for policy and planning. *Note: One field trip required at student's expense. This course may be taken for sociology credit.*

GEO 4408 **Rural America: Past and Present (3)**
A study of rural society, its organization, agencies, institutions, population trends and composition, patterns of settlement, social processes, and change in character.

GEO 4411 **Population and Society (3)**
This course provides an overview of how to analyze and think about changing population trends in the U.S. as well as around the world. Students will learn how to relate contemporary and pressing problems such as migration, population growth, fertility, death rates, and other population changes to current social and economic policy debates (e.g., funding for Social Security, education, healthcare, etc.).

GEO 4415 **North American Geography (3)**
Survey of agricultural, industrial, and commercial development of Anglo-America. Covers physical and cultural environment, resource distribution, economy, and population characteristics.

GEO 4420 **Web Based GIS/Spatial Data Applications (3)**
The student will learn the techniques and protocols needed to develop and transmit spatial databases for use by a variety of interests on the World Wide Web. "Remote" spatial data analysis on existing databases will be an important component of the course.

GEO 4435 **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.

GEO 4485 **Practicum in GIS/Spatial Data (3)**
Supervised GIS projects on a topic chosen by the student. Intended to give practical experience for the student seeking GIS employment post-graduation.

GEO L485 **GIS/Spatial Data Modeling Lab (2)**
The purpose of this lab is to allow the students to demonstrate their ability to collect, formulate, analyze, and draw conclusions based upon a real world modeling exercise.

GEO 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research."

GEO 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Supervised study through field and laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: Junior or senior standing, with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research."

GEO 4498 **Honors Independent Study (1 to 3 credit hours)**
Advanced research and study for outstanding students in their major field. Culminates in report to a department committee which includes invited faculty members in related fields.

GERMAN COURSES (GER)

Note: For additional information, see Placement in Academic Courses.

GER 1121 **Introductory German I (3)**
Introduction to the German language and culture.

GER 1122 **Introductory German II (3)**
Introduction to the German language and culture.
Prerequisite: GER 1121 or permission of instructor.

GER 2221 **Intermediate German I (3)**
Emphasis on basic language skills and knowledge of German culture.
Prerequisite: GER 1122 or permission of instructor.

GER 2222 **Intermediate German II (3)**
Emphasis on basic language skills and knowledge of German culture.
Prerequisite: GER 2221 or permission of instructor.

GER 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

GREEK COURSES (GRK)

Note: For additional information, see Placement in Academic Courses.

GRK 1111 **Introductory Greek I (3)**
Introduction to the ancient Greek language with emphasis on pronunciation, basic vocabulary, fundamentals of grammar, and graded readings.

GRK 1112 **Introductory Greek II (3)**
Continuation of GRK 1111.
Prerequisite: GRK 1111 or permission of instructor.

GEOGRAPHIC INFORMATION SYSTEMS

GIS 3301 **Cartography & Geovisualization (3)**
Skills and knowledge required to design, produce and reproduce maps, and understand the

computation issues relating to these workflows, and capabilities for representing and interpreting spatial information through maps and related mapping products.

GIS 3305 **Spatial Information and Analysis (3)**
Skills and knowledge related to spatial processes, point patterns, and autocorrelation in area data, as well as in continuous fields.

GIS 4401 **Spatial Database Design and Management (3)**
Introduction to design, implementation, and management of spatial data base systems; modeling and representation of spatial objects; fundamentals of relational database design, normalization, and SQL; spatial data queries, spatial indices, and integrity constraints; and spatial database management and applications.
Prerequisite: GEM 3390.

GIS 4405 **Spatial Modeling and Programming (3)**
Introduction to geospatial analysis and modeling process using GIS modeling tools and programming languages. Focuses on GIS customization, integration of basic geoprocessing tools, programming fundamentals of Python, spatial data access and manipulation with Python, design and implementation of geospatial solutions to automate geoprocessing tasks using Python.
Prerequisite: GEM 3390.

HISTORY COURSES (HIS)

HIS 1101 **Western Civilization I (3)**
Survey of developments in Western history from the pre-historic era to early modern times, including classical antiquity, Middle Ages, and Renaissance and Reformation.

HIS 1102 **Western Civilization II (3)**
Survey of developments in Western history from modern times to the contemporary era, including the Scientific Revolution, Enlightenment, French Revolution and Napoleon, nationalism, imperialism, two world wars, and the postwar era.

HIS 1103 **Honors Western Civilization I (3)**
Chronological coverage same as HIS 1101. Enrollment restricted to superior students.
Prerequisite: Permission of department chair.

HIS 1104 **Honors Western Civilization II (3)**
Chronological coverage same as HIS 1102. Enrollment restricted to superior students.
Prerequisite: Permission of department chair.

HIS 1111 **U.S. to 1877 (3)**
Survey of American history from the colonial period through Reconstruction, including the Revolution, Constitution, Early National Era, sectional problems, and the Civil War.

HIS 1112 **U.S. since 1877 (3)**
Survey of American history from post-Reconstruction to the contemporary era, including industrialization, emergence as a world power, World War I, Great Depression, World War II, Cold War, the expanding role of government, and global issues in the post-Communist era.

HIS 1113 **Honors U.S. to 1877 (3)**
Chronological coverage same as HIS 1111. Enrollment restricted to superior students.
Prerequisite: Permission of department chair.

HIS 1114 **Honors U.S. since 1877 (3)**
Chronological coverage same as HIS 1112. Enrollment restricted to superior students.
Prerequisite: Permission of department chair.

HIS 1122 **World History to 1500 (3)**
This course surveys the origins, development, and character of the major centers of civilizations and their relationships to one another from the earliest civilizations to 1500.

HIS 1123 **World History from 1500 (3)**
This course surveys the growth, development, and character of the major centers of civilizations from 1500 to the present. The course focuses on the growing interconnections among societies around the globe in politics, economics, culture, and technology and examines the wide processes leading to the emergence of the present world.

HIS 1124 **Honors World History I to 1500 (3)**
Chronological coverage same as HIS 1122. Enrollment restricted to superior students.
Prerequisite: Permission of department chair.

HIS 1125 **Honors World History II to 1500 (3)**
Chronological coverage same as HIS 1123. Enrollment restricted to superior students.
Prerequisite: Permission of department chair.

HIS 2210 **History Through Games (3)**
This course will utilize a variety of different game formats, including video games, role-playing games, board games, and sports to explore historical concepts and events. Students will be encouraged to think analytically about the ways games interpret historical events versus textbook explanations.

HIS 2215 **History Through Movies and Music (3)**
This course will explore historical topics through various popular culture sources, including movies and music. Students will be encouraged to compare the popular culture material with historical events as well as analyze the sources in the context of their times.

HIS 2220 **Cultural History of Alcohol and Drug Use in the United States (3)**
This course examines attitudes, laws, religious structures, and political movements related to the prohibition and promotion of alcohol and other drugs in various periods in American's past. The course will examine films, music, novels, and dramatic works in an attempt to understand the role of mood-altering substances in American life. Particular attention will be paid to attempts to provide solutions to problems associated with alcohol and drug use such as the prohibition movement, Alcoholics Anonymous, medical-based treatment programs, and prevention programs.

HIS 2225 **The African-American Experience (3)**
This course explores African-American history f rom slavery though the present day, with a focus on societal roles and contributions, along with political thought and cultural movements. The course emphasizes the importance of this history and culture in understanding the world today.

HIS 2230 **General Topics in History (3)**
Historical examination of a designed topic of special and/or current interest and importance generally not covered in regularly offered courses by the department.

HIS 2280 **Travel Study in History (3)**
Supervised investigation of relevant topics in history through travel-study abroad or within the interior of United States.
Prerequisite: Permission of instructor.

HIS 3302 **History of Religion in the United States (3)**
A study of the development of religion in the United States, including denominations, beliefs, church life, and the relationship of religious beliefs to other beliefs and institutions.
Prerequisite: HIS 1111 and 1112 or permission of instructor

HIS 3304 **Military History of the United States (3)**
A study of war in United States history from the Colonial period to the present, with emphasis on the role of warfare in United States history and the relationship of the military to the civilian.
Prerequisite: HIS 1111 and 1112 or permission of instructor.

HIS 3316 **History of Alabama (3)**
A study of the demographic, political, social, economic, and religious aspects of Alabama's history, emphasizing the role of the state within the nation.
Prerequisites: HIS 1111 and 1112 or permission of instructor

HIS 3320 **Colonial Latin America (3)**
Study of the history of Latin America from the pre-Columbian times to the beginning of the independence movements of the early 19th century. Topics will include the indigenous populations, European colonialism and its effects, and the causes and early development of revolution.
Prerequisites: HIS 1122 or HIS 1123 or permission of instructor.

HIS 3321 **Modern Latin America (3)**
Study of Latin America from the early 19th century to the present. Topics will include the cultural, social, political, and economic developments as well as international and U.S. relations in the area.
Prerequisites: HIS 1122 and HIS 1123 or permission of instructor.

HIS 3331 **Western Thought since the 17th Century (3)**
Principal ideas and political thinking from the Age of the Enlightenment to the present.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 3346 **Cultural History of the United States to 1877 (3)**
A study of American society through its literature, religion, philosophy, and the arts. Emphasis will be on immigration patterns, European cultural transfer, and environmental adaptations that created the American character.
Prerequisites: HIS 1111 and HIS 1112 or permission of instructor.

HIS 3347 **Cultural History of the United States since 1877 (3)**
This course provides a concentrated study of changing thought patterns resulting from the rise of Big Business, theories of the public interest, and the emergence of the United States as a world power. Wide opportunities for reading offered in religion, philosophy, literature, and the arts
Prerequisites: HIS 1111 and HIS 1112 or permission of instructor.

HIS 3352 **History of Africa (3)**
A survey of 19th and 20th century political, social, and cultural history of the region, including the partition of Africa by European powers and decolonization.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 3360 **Introduction to Archives: Theory and Issues (3)**
This course will introduce students to the history and social value of records and archives, to the theory underlying professional archival practice, and to the application of archival theories in the digital world.

HIS 3365 **Bioethics in Historical Context (3)**
This course focuses on the development of bioethics, organized both chronologically and thematically. By situating fundamental ethical questions in historical context, we will analyze the influence of developments in science and technology (e.g., introduction of new drugs, transplantation, dialysis, cloning), as well as the cultural, political, and legal contexts of key ethical issues.

HIS 3375 **Research and Methodology (3)**
A course designed to acquaint students with research methods and computer skills as related to the history profession. The principal requirement is the successful completion of a formal research paper in which students will demonstrate proficiency in research, writing, and basic computer skills.
Note: It is strongly recommended that history majors complete this course during the first term of their junior year. Prerequisite: Nine semester hours of history surveys including one of the freshman/ sophomore-level series. Note: Students must receive a grade of C or better for credit toward completion of degree requirements.

HIS 4401 **French Revolution and Napoleon (3)**
A study of absolutist-aristocratic France challenged by democratic-egalitarian ideals and revolution, including the role of Napoleon as conqueror of Europe and as propagator and destroyer of the French Revolution.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4402 **Europe from 1815-1900 (3)**
A study of Europe from the Congress of Vienna to 1900, including political, social, and economic developments in various countries, the rise of nationalism and unification movements, and imperialism.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4404 **Modern Eastern Europe (3)**
This course examines political, economic, and social developments of nineteenth- and twentieth-century Eastern Europe from the Revolutions of 1848 through the collapse of the Soviet bloc and beyond. The course analyzes the impact of the disintegration of Russian, Ottoman, and Habsburg empires on inter-war Eastern Europe; examines the establishment**,** development, and eventual collapse of communism in the region; and explores the dynamics of post-Cold War European integration.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4405 **Old South (3)**
An examination of the cultural, political, religious, and economic trends that shaped the colonial and antebellum South and the Civil War which ended that era.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4406 **New South (3)**
An examination of the political, social, racial and religious trends and policies that defined the New South. Topics include reconstruction, redemption, agrarian unrest, Jim Crow, industrialization, Progressive Movement, World War I, the Great Depression, World War II, and the Civil Rights Movement.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4407 **Jacksonian America (3)**
A study of the emerging American nation. Topics will include Jeffersonian and Jacksonian democracy, the market revolution and slavery, the Second Great Awakening, and rise of reform movements, Manifest Destiny and the Mexican War.
Prerequisites: HIS 1111 and HIS 1112 or permission of instructor.

HIS 4409 **Infectious Diseases and History (3)**
The courses provides a study of the causes and effects of infectious diseases on major events in human history from the Neolithic revolution to the present. A selected case study will be presented.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4410 **Gender, Health, and History (3)**
Explores the historical relationships between sex, gender, and medicine in the western world and improves students' cultural and historical literacy, understanding of major health issues in the health professions, the role of gender and sex in medicine and culture, and the diversity of medical and social practices.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4411 **Colonial America (3)**
Study of the colonial period from European discovery to the end of the French and Indian War, with emphasis on the political, economic, and social developments that set the stage for the American Revolution.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4412 **American Revolution and New Nation (3)**
Ideas and institutions which led to American independence, the creation of an American union, and the development of a distinctive American culture in the period preceding 1800.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4413 **Sectionalism, Civil War, and Reconstruction (3)**
Examines territorial expansion, slavery, and sectional strife, and the resulting Civil War and Reconstruction.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4414 **Rise of Industrial America, 1877-1920 (3)**
Examines the period in American History between 1877and 1920. Topics covered include the results of Reconstruction, the development of the New South, agricultural decline and crisis, industrialization and urbanization, Progressive Era reform, the growth of America as a world power, and the causes and effects of World War I.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4415 **Post World War II America (3)**
Examines the political, economic, and cultural themes in American history from 1945 to the present. Topics covered include the effects of World War II, the origins and development of the Cold War, the Civil Rights Movement, the social movements of the 1960s and 1970s, the Vietnam War, the economic and political crises of the 1970s, the rise of conservatism in the 1980s, and the effects of America's rise to superpower status.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4420 **History of American Minorities (3)**
Study of selected ethnic, racial, cultural, social, and religious minorities, their treatment within and their contributions to American society.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4421 **African-American History (3)**
An introduction to the history of African Americans from the 17th century to the present, including slavery, Civil War and emancipation, legalized discrimination, and the struggles for equality in present day American society.
Prerequisite: HIS 1111 and 1112 or permission of instructor.

HIS 4422 **Gender History in America (3)**
An introduction to the history of gender in America from the 17th century to the present, exploring the major economic, religious, social, and political ideas and developments which have shaped conceptions about gender in American history.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4423 **American Diplomatic History (3)**
A study of the factors, forces, and functions in the making of American foreign policy from the 1760s to the present.
Prerequisites: HIS 1111 and HIS 1112 or permission of instructor.

HIS 4425 **Principles of Public History (3)**
Introduces students to the field of public history and addresses the relationship of applied and academic history, the major debates in the discipline, and provides an overview of public history's subfields and historic traditions.

HIS 4430 **Civil Rights Movement (3)**
Study of the origins of the Civil Rights Movement in the late nineteenth and twentieth centuries, the 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.
Prerequisites: HIS 1111 and HIS 1112 or permission of instructor.

HIS 4431 **The Vietnam War (3)**
A study of the period 1946 to 1975 in Indochina with emphasis on American involvement in the region as part of the larger Cold War context. The course draws heavily on the new historiography of the Vietnam War that has emerged following the collapse of the Soviet Union and is based on newly declassified documents from the western world (especially the United States), Vietnam, China, Russia, and the former socialist camp.
Prerequisites: HIS 1111 and 1112 or permission of instructor. Note: may be used for political science credit.

HIS 4433 **Modern Russia (3)**
The development of the revolutionary movements and tsarist reform attempts, World War I, revolutions of 1917 and the Bolshevik victory, establishment of the Stalinist state, World War II, the Cold War, Soviet domestic problems, and the disintegration of the USSR.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4437 **Interwar and World War II America (3)**
A study of America in the years between the end of World War I and the end of World War II. Topics will include cultural and economic changes during the 1920s, the causes and effects of the Great Depression, the programs of the New Deal, and the diplomatic, culture, and social causes and effects of World War II.
Prerequisites: HIS 1111 and HIS 1112 or permission of instructor.

HIS 4438 **The Cold War (3)**
This course explores the history of the Cold War, focusing on its origins, the major events (the Korean War, the Cuban Missile Crisis, the Vietnam War, the Berlin Crises, and so on), and the collapse of the Soviet Union. The emphasis of the course is placed on analyzing newly available primary documents from the Western and former communist sources and their impact on previous Cold War historiography.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1111 and HIS 1112 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4441 **American Constitutional Development (3)**
A study of the American constitutional system with emphasis upon its origin and evolution via amendments and Supreme Court decisions.
Prerequisites: HIS 1111 and 1112 or permission of instructor. Note: May be used for political science credit.

HIS 4443 **Late Antiquity (3)**
Study of developments in the Mediterranean and Europe during the third through eighth centuries ,including the fall of the Roman empire and the rise of barbarian kingdoms. The course examines the interrelatedness of economics, politics, warfare, and religion in shaping late ancient societies.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4444 **The Crusades (3)**
Study of the origins and execution of the series of religious wars called the crusades. In addition to analyzing the various campaigns, the course also examines the phenomenon in the context of the social and cultural conditions in medieval Europe, Byzantium and Islam.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4445 **History of Modern Germany (3)**
Survey of Germanic peoples from the Revolutions of 1848 to the present, emphasizing unification, two world wars, postwar division, and reunification.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4447 **The Holocaust (3)**
An examination of the Holocaust, from medieval origins of antisemitism to the persecution of the Jews in the 1930's, resulting in the Final Solution of the 1940's. This course will focus on the implementation of the Nazis' anti-Semitic politics and the responses of other nations to the Holocaust, examining the roles of victims, perpetrators, and bystanders. The course will also survey the impact of the Holocaust on the world today.
Prerequisites: HIS 1101 and HIS 1102, or HIS 1122 and HIS 1123, or permission of the instructor.

HIS 4448 **The West in American History**
Study of the history of the American West from European contact to the present. Topics will include the role of the US government, the effects of American expansionism on immigrants and indigenous populations, and struggles over resources and territory.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4449 **History of Nazi Germany (3)**
An examination of Adolph Hitler and the Nazi Party from their origins in the aftermath of World War I, through their rise to power to defeat of the regime in 1945. The course will focus on how the Nazis came to power and what they did when they achieved it: their policies and practices, collaboration and resistance to the Nazis, and ramifications of Nazi rule. The course will also address why such an advanced country as Germany would support such regime.
Prerequisites: HIS 1101 and HIS 1102, or HIS 1122 and HIS 1123, or permission of the instructor.

HIS 4450 **Environmental History of the U.S. (3)**
An introduction to environmental history of the United States from the 18th century to the late 20th century, emphasizing the post-World War II period. The course will focus on the historical development of the science of ecology, the origins of environmental problems and solutions attempted by government and experts, as well as responses by grassroots activists over time.
Prerequisites: HIS 1111 and 1112 or permission of instructor.

HIS 4451 **Modern East Asia**
Study of the development and interaction of Chinese, Japanese, and Korean civilizations, the impact of Western cultures, twentieth-century conflicts, resolutions and accommodations.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4452 **History of the Medieval Middle East (3)**
This course covers the Middle East from the time of the birth of Islam through the founding of the Ottoman Empire in 1517. This class will provide a thematic treatment of issues like historiography, religious division, slavery, gender, and the status of Jewish and Christian communities under the Islamic Caliphs and Sultans.
Prerequisites: HIS 1101and 1102 OR HIS 1122 and 1123 or permission of instructor.

HIS 4453 **History of the Modern Middle East (3)**
This course covers the Middle East from Napoleon's invasion of Egypt through the present day, covering the 19th Century, Zionism, the fall of the Ottoman Empire, the Arab-Israeli Conflict, and the colonial and postcolonial periods.
Prerequisites: HIS 1101and 1102 OR HIS 1122 and 1123 or permission of instructor.

HIS 4462 **Age of Absolutism (3)**
Survey of political and religious controversies that shaped affairs in Europe during the 16th and 17th centuries, emphasizing the cataclysmic

developments in scientific, political, humanitarian, and economic thought that prepared the way for the rise of democracy in both the old and the new world.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4463 **Europe in the Age of Enlightenment (3)**
Survey of European history in the 18th century, emphasizing developments in society, politics, economics, and culture. The course will broadly emphasize the changing nature of authority in the 18th century from the beginning of the century until 1789- the year of the French Revolution.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4464 **England to 1688 (3)**
A survey of English history from the Anglo-Saxons to the Glorious Revolution, emphasizing the interaction of geographical, political, economic, and cultural forces which shaped England as a monarchy.
Prerequisites: HIS 1101 and1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4465 **England from 1688 (3)**
The final evolution of the English political system from the reign of William and Mary to the contemporary era, including social and economic transformations, the British Empire, the two world wars, the welfare state, and current issues.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4466 **Renaissance and Reformation (3)**
Historical review of the transitional centuries bridging the medieval and the modern eras, including the rebirth of art and literature, the Protestant and Catholic reform movements, and the role of kings and states.
Prerequisites: HIS 1101 and1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4467 **Medieval Europe (3)**
Western Europe from the fall of Rome to the Renaissance, including religious and intellectual traditions and the revival of governmental institutions.
Prerequisites: HIS 1101 and 1102 or HIS 1122 and 1123 or permission of instructor.

HIS 4468 **Europe in the World Wars, 1914-1945 (3)**
The course explores Europe from the beginning of the First World War through the end of the Second World War, with examination of the causes, conduct, and consequences of World War I, the interwar period, the growth of fascism and totalitarian regimes, and the outbreak and effects of World War II. Emphasis will be placed on the political, military, economic, and social developments of the European continent during this period.
Prerequisites: HIS 1101and 1102 OR HIS 1122 and 1123 or permission of instructor.

HIS 4469 **Europe since World War II (3)**
The course explores political, military, economic, and social developments of Europe after World War II, including the reconstruction and division of Europe, the rise and the end of the Cold War, the establishment and collapse of communism, division of Germany, military alliances, the European Community, and the efforts towards European integration.
Prerequisites: HIS 1101and 1102 OR HIS 1122 and 1123 or permission of instructor.

HIS 4470 **Oral History Methods and Practices (3)**
An introduction to the methods and practice of oral history.

HIS 4471 **Local History Methods and Practices (3)**
An exploration of history, historiographic issues, and methodology of local history in the United States. Provides opportunities to become familiar with sources used in studying local history and to gain practical experience in conducting local history research.

HIS 4473 **Archival Methods and Practices (3)**
Provides students with an opportunity to apply their knowledge of archival and records management theory and practice. Students will be assigned to work on projects at an archival repository chosen in cooperation with instructor.
May be repeated once as an elective. Note: Credit in Archival Minor only.

HIS 4474 **Internship in History Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454.

HIS 4481 **Methods and Materials for the Secondary Teacher (3)**
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of history/social science materials for grades 6-12 will be covered in detail. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

HIS 4486 **The Caribbean (3)**
A history of the Caribbean region from pre-Columbian times to the present. Topics will include the indigenous population, European colonialism and its legacy, the impact of slavery and racial diversity in the region, cultural and political revolutions, and the area's relationship with the United States.
Prerequisites: HIS 1101 and HIS 1102 or HIS 1122 and HIS 1123 or permission of the instructor.

HIS 4490 **Senior Seminar in History (3)**
The capstone course for history majors which synthesizes students' course work through research, historiography, writing, speaking, and reading comprehension.
Prerequisites: senior standing at all institutions and HIS 3375. Note: Students must receive a grade of "C" or better for credit toward completion of degree requirements.

HIS 4491-92 Guided Independent Research (1 to 3 credit hours)
Additional information is indexed under Independent Study and Research.

HIS 4493-94 Guided Independent Study (1 to 3 credit hours)
Additional information is indexed under Independent Study and Research.

HIS 4495 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.
Prerequisites: Applicable survey courses and permission of instructor.

HIS 4498 Honors–Independent Study (1 to 3 credit hours)
Advanced research and study for outstanding students in their major field. Culminates in report to a departmental committee that includes invited faculty members in related fields.
Prerequisite: Senior level and 3.5 overall grade point average. Permission of guiding professor and approval of department chair and the dean of arts and sciences. A written request must be submitted to the department chair at least six weeks in advance of the semester the research is to be undertaken.

HIS 4499 Internship in History (1 to 3 credit hours)
Supervised work in an agency that can provide practical experience in the field of study.
Prerequisites: senior standing, at least 2.5 GPA, 12 hours in upper-division courses in the field, and permission of supervising instructor, department chair and/or dean.

HEALTH COURSES (HLT)

HLT 4481 Methods and Materials for the Secondary Health Educator (3)
Teaching methods, selection, organization and use of health education materials in grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson plan formatting. A professional laboratory experience is included in this course.
Prerequisite: admission to the Teacher Education Program.

UNIVERSITY HONORS PROGRAM COURSES (HON)

Please see the index for additional information regarding the University Honors Program.

HON 1101 Freshman Honors Colloquium (3)
The first in a series of interdisciplinary seminars for University Honors Program candidates, combining class work with focus on the humanities, social sciences, natural sciences, attendance at campus and community events, and University Honors Program student activities.
Prerequisite: admission as a candidate for University Honors Program in fall semester of the freshman or sophomore year.

HON 2200 University Honors Special Topics: Interdisciplinary I (3)
A one-semester course for students who have been accepted into the University Honors Program via the PEAK Program and completion of the requirements for candidacy. Interdisciplinary topics are determined in advance by the Honors Council and the honors director.
Prerequisites: HON 1101 or permission of the honors director.

HON 3300 University Honors Special Topics: Interdisciplinary II (3)
A one-semester course for students who have been accepted into the University Honors Program. Interdisciplinary topics are determined in advance by the Honors Council and honors director.
Prerequisite: HON 2200 or permission of the honors director.

HON 4400 University Honors Capstone Seminar in Leadership (3)
The final course in the interdisciplinary sequence of University Honors courses is focused upon the subject of leadership, with specific leadership and service topics determined in advance by the Chancellor, the director of the honors program, and the director of the Institute for Leadership Studies.

HON 4498 Department Honors Thesis or Project (3)
Independent study with honors-level credit within the student's major department. See departmental offerings in English and history.

HUMAN RESOURCE MANAGEMENT COURSES (HRM)

HRM 3375 Global Human Resource Management (3)
A survey of the roles, functions, and activities of human resource management including job analysis, job design, recruiting, selection, placement, training and development, compensation, employee and labor relations, and current issues in both the domestic and global environments.
Prerequisite: Lower-level Core.

HRM 4455 Employment Law (3)
A study of the major employment laws and related regulations as they apply to the private sector.
Prerequisite: Lower-level Core.

HRM 4473 Labor Law and Collective Bargaining (3)
A study of court decisions, national labor, administrative regulations, and procedures of the National Labor Relations Board that guide effective approaches to collective bargaining and labor relations.
Prerequisite: Lower -level Core.

HRM 4481 Staffing (3)
Addresses theory, principles, practices, and legal requirements for effective recruitment, selection, and promotion in organizational settings.
Prerequisite: Lower--level Core.

HRM 4482 Managing Health, Safety and Diversity (3)
This course addresses the theory, practice and legal requirements in managing employee health, safety, and cultural diversity in organizational settings
Prerequisite: Lower-level Core.

HRM 4483 Human Resource Development (3)
Theory and practice in human resource training and development applied to organizational settings.
Prerequisite: Lower-level Core.

HRM 4485 Performance Appraisal and Compensation (capstone) (3)
Addresses theory, principles, practices, and legal requirements linking effective performance management and compensation and benefit systems in organizational settings.
Prerequisite: Lower-level Core.
Co-requisite: And at least three of the 4000-level Human Resource management courses.

HRM 4496 Selected Topics in HR (3)
An in-depth study of a broad range of human resource management topics. Individual investigations and reporting are emphasized in

seminar fashion. Focus on a topic of a timely nature and/or special interest.
Prerequisite: Lower-level Core.

HRM 4499 Internship (3)
The Human Resource Management Internship is a supervised work experience that provides students with the opportunity to gain applied work experience their field of study. Students are interviewed and selected by the individual companies offering the internship. This course may be repeatable and must comply with the SCOB internship policy.

HOSPITALITY, SPORT, TOURISM MANAGEMENT COURSES (HSTM)

HSTM 2201 Leisure in Society (3)
This course provides the student with a broad understanding and appreciation of the significance of leisure as well as examine what people do for leisure in a changing society. Students will explore the place of leisure in society and in their individual life. Students form all majors can evaluate the significance of leisure in their lives, develop personal leisure lifestyles that promote development and health, and understand how leisure affects society.

HSTM 2210 Introduction to Event Management (3)
This course is a fundamental introduction to the event planning industry with an emphasis on the role and relevance of the industry to society. This course is designed to explore the multi-disciplinary nature of event management to provide a foundation of practical skills and knowledge students need to succeed in the events industry.

HSTM 2255 Introduction to Hospitality, Sport and Tourism Management (3)
This course is a fundamental introduction to the leisure industry with an emphasis on the role and relevance of the industry to society. This course is designed to introduce students to an understanding of the various roles recreation, sport, hospitality management, and tourism have in society.

HSTM 2257 Global Hospitality, Sport and Tourism Management (3)
This course allows students to obtain a global hospitality, sport and tourism management perspective by traveling and studying abroad. Classroom lectures, field trips and presentations from international hospitality, sport and /or tourism professionals and academicians will supplement the cultural experience.
Prerequisite: Permission of instructor.

HSTM 3320 Event Information, Communication, and Technology (3)
This course is designed to serve as an introduction and exploration of various common and emerging information technologies in the event management field. This course will encourage the undergraduate students interested in event planning and management to remain with contemporary developments in the field.
Prerequisite: HSTM 2210.

HSTM 3330 Festivals and Special Events (3)
This course provides a comprehensive overview of the festival and event industry. Students will be introduced to the various types of festivals and special events as well as their personal, societal, cultural, economic, and environmental consequences. The course also explores management issues and strategies necessary to plan, organize, fund, market, stage, and evaluate festivals and special events.

HSTM 3340 Principles of Recreation (3)
This course provides an overview of recreation on federal, state, and local levels with respect to history, program, population, facilities and trends.

HSTM 3345 Recreation Programming (3)
This course provides the foundations of basic programming skills, methods, and techniques necessary to deliver recreational activities within a variety of settings, agencies, and organizations.

HSTM 3360 Tourism Management (3)
This course is an introduction to the travel and tourism industry which provides students on overview of the scale, scope, and organization of the industry. Students will be exposed to a variety of concepts and subject areas related to travel and tourism.
Prerequisite: HSTM 2255.

HSTM 3372 Hospitality Management (3)
This is a survey course providing an overview of the hospitality industry, its history, issues, and general operating procedures.
Prerequisite: HSTM 2255.

HSTM 3374 Hotel Management (3)
This course prepares students to manage basic hotel operations including hotel organization, rooms, housekeeping, engineering and security, food and beverage, marketing, and financial control.
Prerequisite: HSTM 2255.

HSTM 3377 Domestic and International Tourism (3)
This course examines the tourism industry from a domestic and international perspective. Students will analyze the domestic tourism market and international tourism market. Students will also be exposed to various tourism segments which may include: cultural tourism, heritage tourism, sport tourism, eco-tourism, adventure tourism and others.
Prerequisite: HSTM 2255.

HSTM 4410 Tourism Economics (3)
This course examines the fundamental economic principles as they apply to the tourism industry. Students will be exposed to the application of various economic analyses to tourism and will also examine the impacts of tourism on regional and national economies.
Prerequisite: HSTM 2255.

HSTM 4414 Sustainable Tourism (3)
This course covers the management of sustainable tourism through decision making on the economic, social, and environmental ("triple bottom line") sustainability of actual cases from the tourism industry. The course comprehensively examines the theoretical and applied dimensions of contemporary sustainable tourism fro a local to global perspective. Subject matter includes: alternative tourism or small-scale tourism and its pros and cons; sustainable tourism within the context of mass tourism; green consumerism; transportation, accommodation, attractions, the tour operator, and quality control; destination sustainability including community empowerment and sustainability models; and future directions in sustainable tourism.
Prerequisite: HSTM 2255.

HSTM 4415 Tourism Impacts and Planning(3)
This course concentrates on the study of tourism impacts, both positive and negative, ranging in scope from the local to the global. Students will be exposed to a range of environmental, economic, socio-cultural and political issues and impacts at the local, regional, national, and international level.
Prerequisite: HSTM 2255.

HSTM 4417 Current Issues in Tourism (3)
This course is designed to serve as a mechanism for the introduction of new information and technology issues for the tourism industry. This course will encourage the undergraduate student in tourism management to remain current with contemporary developments in the tourism industry.
Prerequisite: Senior Standing.

HSTM 4418 Tourism Development and Planning (3)
This course provides an introduction to the nature and scope of tourism planning and development at the local, regional, and national levels. Topics to be addressed include economic, social, environmental, and policy considerations within the sustainable development framework. This course also discusses planning and development guidelines to be considered in different geographical areas.
Prerequisite: HSTM 2255.

HSTM 4419 Tourism Enterprises (3)
This course concentrates on the creation and management of tourism business entities and the dynamics of operating these businesses successfully. Students will be exposed to entrepreneurial opportunities, business development and managerial activities associated with successful operation of tourism businesses.
Prerequisite: Senior Standing.

HSTM 4420 Revenue Management in Hospitality (3)
This course investigates principles, concepts, and current trends in financial and revenue management as related to the hospitality industry.
Prerequisite: HSTM 2255.

HSTM 4423 Current Issues in Hospitality (3)
This course is designed to serve as a mechanism for the introductions of new information and technology issues for the hospitality industry. This course will encourage the undergraduate hospitality student to remain current with contemporary developments in the hospitality industry.
Prerequisite: Senior Standing

HSTM 4425 Human Resource Management in Hospitality (3)
This course focuses on a decision making process that affects the performance, quality, and legal compliance of the hospitality business as a whole. Beginning with a foundation of the hospitality industry, employment law, and HR policies, the coverage includes recruitment, training, compensation, performance appraisal, environmental and safety concerns, ethics and social responsibility, and special issues.
Prerequisite: HSTM 2255.

HSTM 4428 Legal Aspects in Hospitality Management (3)
This course provides coverage of legal issues in hospitality and tourism, including those associated with hotels, restaurants, transportation, travel agents, tour operators, gamin, mixed-use, and timeshare properties.

HSTM 4430 Marketing in Hospitality, Sport and Tourism Management (3)
This course is designed to introduce the student to marketing practices of hospitality, sport and tourism. The course will review terminology, systems, techniques and processes that are used in the specialized application of hospitality, sport and tourism marketing. This course will also encourage students to consider how traditional marketing strategies may be applied to these substantial and growing industries.
Prerequisite: HSTM 2255.

HSTM 4435 Current Issues in Sport Management (3)
This course is designed to serve as a mechanism for the introduction of new information and technology issues for the sport industry. This course will encourage the undergraduate sport management student to remain current with contemporary developments in the sport industry.
Prerequisite: Senior Standing.

HSTM 4440 Governance and Policy in Sport (3)
This course is designed to provide the student with information concerning basic structure and governing principles of various sport agencies. The course will include, but is not limited to, an examination of the National Collegiate Athletic Association, National Association of Intercollegiate Athletics, and national and international professional sports leagues. In addition, students will be introduced to the importance of policy development in the areas of finance, human resources, facility use and control, equipment, travel, public relations, and risk management.
Prerequisite: HSTM 2255.

HSTM 4443 Sport Administration (3)
This course is designed to provide the student with an understanding of the organization and administration of sport management related programs.
Prerequisite: Permission of instructor.

HSTM 4445 Research Methods in Hospitality, Sport and Tourism Management (3)
The purpose of this course is to provide undergraduate students with a fundamental understanding of the research and evaluation process in hospitality, sport and tourism industries. The course is intended to familiarize students with research and evaluation principles, concepts, methods, techniques, and application that can be applied in a wide variety of leisure settings.
Prerequisite: HSTM 2255, MTH 1112.

HSTM 4450 Event Management in Hospitality, Sport and Tourism Management (3)
This course is designed to give advanced students the opportunity to plan, prepare and administer leisure-related events, thus providing students with practical experiences in hospitality, sport and tourism management. Students will gain experiences in event management, including planning, organizing, implementing, evaluating, directing personnel, securing sponsorships and marketing for multiple events.
Prerequisite: Permission of instructor

HSTM 4451 Sport Finance (3)
This course is designed to provide the student with information concerning the basic theories of finance as applied to managerial control of sport organizations. Included are forms of ownership,

financial analysis, financial issues in the sport industry, and economic impact studies.
Prerequisite: HSTM 2255

HSTM 4452 Sport Communication (3)
This course provides the student with an opportunity to apply communication theories to the sport industry. Emphases are on the examination of public and media relations with a special focus on message development, image building, and crisis management for sport organizations.

HSTM 4453 Legal Aspects in Sport Management (3)
In this course the student will gain an appreciation for the legal and business matters that pertain to sport and related areas. Students will acquire working awareness and understanding of the basic legal and business responsibilities of coaches, sport managers and practitioners, along with an understanding of legal terms, concepts and issues that influence the management of programs. Students will also develop appreciation for business elements of sport, which encroach upon the law.

HSTM 4455 Facility Management (3)
This course is designed to provide the student with information concerning the planning, design, organization, and administration of sport, fitness and recreational facilities.
Prerequisite: HSTM 2255

HSTM 4460 Leadership Principles in Hospitality, Sport and Tourism Management (3)
This course is designed to assist students in undertaking and developing a personal philosophy on leadership. Students will be required to conduct self-evaluation, examine and develop a leadership philosophy, values and moral reasoning skills. Major leadership/ moral/ and ethical issues in hospitality, sport and tourism will be researched and discussed. The student will explore how personal ethics affect leadership and organizational responsibility.
Prerequisite: HSTM 2255.

HSTM 4465 Hospitality Service (3)
This course provides students with the study of basic service throughout the various hospitality industries including: food & beverage, gaming, lodging, country clubs, events, and travel and tourism.
Prerequisite: HSTM 2255

HSTM 4466 Restaurant Management (3)
This course provides students with the study of basics of restaurant management fundamentals to include organizations, facilities design, equipment and environmental considerations, food safety, operational functions, and management.
Prerequisite: HSTM 2255.

HSTM 4470 Revenue Generation in Hospitality, Sport and Tourism Management (3)
This course will provide professional sales techniques needed to form a framework for revenue generation in the hospitality, sport and tourism industries. Students will examine the foundations, theory, and framework associated with sales, and the dynamics associated with building and fostering relationships necessary for a vibrant client base.
Prerequisites: HSTM 2255, HSTM 4430.

HSTM 4480 Event Planning and Operation (3)
This course is an in-depth look at the skills and knowledge required to develop, plan, and execute events. This course is designed to extend beyond basic planning functions and develop core competencies including: strategic planning, project management, risk management, financial management, administration and HR management, site selection, marketing, and event design.
Prerequisite: Instructor Approval Required

HSTM 4485 Practicum (3)
The practicum opportunity is designed to provide practical experiences for Hospitality, Sport and Tourism Management Students. The practicum allows the student to develop and mature through exposure to and practical experience with a variety of tasks under the guidance of trained, established leaders in the field. This is a supervised learning experience with an approved hospitality, sport, tourism, or event service agency, organization, or institution.
Prerequisite: Instructor Approval Required

HSTM 4488 Internship I in Hospitality, Sport, and Tourism Management (3)
A supervised experience in planning, staging, and evaluating a form practicum in related field. This is the first term in a two term internship experience.
Prerequisite: Permission of internship coordinator and Troy Online home location.

HSTM 4489 Internship II in Hospitality, Sport, and Tourism Management (3)
A supervised experience in planning, staging, and evaluating a formal practicum in related field. This is the second part in a two part internship experience.
Prerequisite: HSTM 4488 and permission of internship coordinator, and Troy Online home locator.

HSTM 4490 Internship in Area of Concentration (6)
A supervised experience in planning, staging, and evaluating a formal practicum in related field.
Prerequisite: Permission of Instructor and Troy campus-home location.

HSTM 4491/92 Guided Independent Research (3)
Additional information is indexed under Independent Study and Research.

HSTM 4493/94 Guided Independent Study(3)
Additional information is indexed under Independent Study and Research.

HSTM 4499 Seminar in Hospitality, Sport and Tourism Management (3)
Students enrolled in this capstone course will examine trends, career paths, and discuss current topics in the hospitality, sport and tourism industries. Students will also prepare cover letters, resumes, undergo a mock job interviews, develop career path portfolios, and undergo supervised experiences in a related field.
Prerequisite: Permission of instructor..

HUMAN SERVICES COURSES (HS)

HS 2230 Survey of Human Services (3)
A survey of the major human service delivery systems to include historical development, populations served, professional roles, and interrelationships between targeted social problems and services delivered. Introduction to the ecological/systems perspective as a tool for understanding these relationships. Includes observations and field trips.

HS 2240 **Ethics (3)**
Ethical decision-making and skill development within the helping professions.

HS 2250 **Fundamentals of Case Management (3)**
This course will introduce the foundation of case management to include the process of assessment, planning, facilitation, care coordination, evaluation, documentation and advocacy of options and service. Case studies will be utilized to facilitate practical application.

HS 3310 **Human Behavior In the Social Environment I (3)**
The biopsychosocial aspects of human growth and development throughout the life cycle. Emphasis is placed on understanding the individual in interaction with major social systems. Knowledge, skill, and value bases necessary for biopsychosocial assessment are built.

HS 3325 **Wellness Across the Lifespan I (3)**
Introductory examination of several aspects of wellness to include nutrition, physical activity, and mental wellness, from birth to young adulthood. This course exposes the student to resources related to a wellness plan.

HS 3335 **Wellness Across the Lifespan II (3)**
Introductory examination of several aspects of wellness to include nutrition, physical activity, and mental wellness, adulthood to death and dying**.** This course exposes the student to resources related to a wellness plan.

HS 3370 **Professional Communication Skills (3)**
Principles and techniques of interviewing for human services professionals. Major emphasis is the building of empathic skills.

HS 3375 **Diversity (3)**
This course provides students with an understanding and appreciation of cultural diversity, ethnic and gender sensitivity, as well as ageism, in social work practice with a variety of populations is highlighted.

HS 3380 **Human Services Study Abroad (3)**
Students will study abroad and engage in service learning opportunities in another culture. Students will develop an understanding of the economy, culture, customs and human services practices of the country while observing and engaging in direct human service practice.
Prerequisites: successful completion of Troy Study Abroad Program requirements and fees.

HS 3399 **Pre-Practicum Seminar (3)**
This course will evaluate the student's ability (knowledge, values, and skills) required to begin Human Service Field Experience. The class will focus upon areas essential for competent human service practice, including social policy and contemporary topics.
Prerequisite: Completing of HS Major requirements. The practicum site must be approved.

HS 4400/ 4410/4420 **Human Service Field Experience I (3), II (3) and III (3)**
Provides experiences in a variety of social and human services settings with an emphasis on the multiple natures of human problems and the impact these problems have on the disabled and disadvantaged. Includes a weekly seminar plus a minimum of 120 clock hours per course hour spent in a particular agency setting. Clinical hours and responsibilities will be determined by internship supervisor.
Prerequisites: Senior level, HS 2230, HS 3370and HS 3399 or permission of instructor.

HS 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

HS 4493-94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

INTERDISCIPLINARY STUDIES COURSES (IDS)

IDS 1101 **Global Challenges (3)**
Students will build knowledge and skills for globally competent citizenship and public service to address global challenges (population, resources, technology, information, economies, governance) faced in the 21st century.

IDS 2200 **Crossroads: Sophomore Interdisciplinary Seminar in Creative Thinking (3)**
This seminar examines specific academic themes from a variety of interdisciplinary perspectives that reach across the human, natural, and social sciences. By capitalizing on the distinctive methodologies offered by faculty members from different academic disciplines, the seminar involves students and faculty in creating original approaches to course.
Prerequisites: completion of 29 hours of coursework by the start of the seminar; written statement of interest to Seminar faculty; 3.0 grade point average, ENG 1101 with a grade of B or better.

IDS 2201 **Applications in Public Service (3)**
An overview of strategies for civic enrichment that engage various forms of community capital (social, religious and governing institutions, citizens, and business/economic interests) to address defined civic issues. Focus is given to diagnosing civic issues, developing and implementing an intervention and evaluating its impact.

IDS 3310 **Principled Public Service in a Modern Age (3)**
This course concentrates on exploring ethical practices when individuals come together and address social problems in their communities. Emphasis will be on ethical leadership in the context of teamwork, participatory decision-making, and citizen empowerment.
Prerequisites: IDS 1101 and IDS 2201.

IDS 3315 **Systems and Structures of Public Service (3)**
Students will learn basic principles of public management and administration, including history and development, organizational structures, and modern functions of public service organizations and advocacy efforts.
Prerequisites: IDS 1101 and IDS 2201.

IDS 4410 **Social and Policy Entrepreneurship (3)**
This course introduces students to social and policy entrepreneurship through case studies, key readings, and primary information resources. The class will explore the sources of funding for social enterprises, such as philanthropy, governmental funding, grant writing, as well as income generating, self-sustaining arrangements that promote long-term change.
Prerequisites: IDS 1101 and IDS 2201.

IDS 4495 **Capstone Experience in Public Service and Civic Engagement (3)**
300 hour field experience internship based at a community agency, healthcare facility, school or government agency focused on application of

student's personal plan for community engagement and public leadership. Through the course, students will build applied public leadership skills and use various applications and strategies for civic enrichment.

INTERDISCIPLINARY EDUCATION COURSES (IED)

IED 4454 **Internship Seminar for Interdisciplinary Education (3)**
This course provides seniors an opportunity during internship to examine 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.
Prerequisite: admission to TEP.
Co-requisite: IED Internship.

IED 4472 **Internship in Grades P-12 (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: IED 4454.

IED 4491-92 **Guided Independent Research (1 to 3 credit hours)**
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research."

IED 4493-94 **Guided Independent Study (1 to 3 credit hours)**
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: Junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research."

INFORMATION SYSTEMS COURSES (IS)

IS 2241 **Computer Concepts and Applications (3)**
This course provides an interdisciplinary introduction to microcomputer literacy, word processing, spreadsheets, database, business graphics and the internet.

IS 3310 **Introduction to Information Systems & Data Analytics (3)**
Introduction to the types of information systems used in the global business environment, with an emphasis on describing how information systems support operations and are used to make business decisions.
Prerequisites: Lower-level Business Core, IS 2241.

IS 3315 **Advanced Applications for Accounting**
A computer software applications course in which students use electronic spreadsheet software and other application software to design and implement solutions to common accounting problems and issues.
Prerequisites: ACT 2292, BUS 3310 and IS 2241.

IS 3320 **Data Communication & Networks (3)**
This course introduces the theory and practical applications of current technologies in data communication and computer networks. Emphasis is placed on data communication principles, local and wide area networks and an understanding of the basic features, operations, and limitations of data communications and computer networks. Coverage includes wireless technologies, industry convergence, compression techniques, network security, LAN technologies, VoIP, and error detection and correction.
Prerequisite: IS 2241, IS 3310.

IS 3346 **Database Management Systems I (3)**
This course is an introduction to database management systems (DBMS) and design via conceptual, logical, and physical modeling techniques. Emphasis is on relational DBMS, including modeling organizational data, representation of data relationships, data definition and manipulation, database design and normalization concepts, database generation, and database administration.
Prerequisites: IS 2241, IS 3310, or consent of instructor.

IS 3350 **Business Programming (3)**
The course introduces and develops programming fundamentals, including program structure, assignment, data types, input/output, flow of control, functions, arrays, pointers, strings, object structures, list processing, and advanced I/O. emphasis is placed on understanding and developing object oriented programs in an integrated development environment (IDE).
Prerequisites: Grade of 'C' or higher in IS 2241 and MTH 1112.

IS 4410 **Business Data Mining (3)**
This course introduces the concepts and practices of extracting information from large databases to support human business decision-making in the areas of summarization, prediction, patterns, relationships, trends, and customer behavior. The course covers various analytical techniques to extract managerial information from large data warehouses using a number of well-defined data mining tasks such as classification, estimation, prediction, affinity grouping and clustering, and data visualization. The course will examine methods and software tools for transforming large amounts of data into new and useful information, uncovering factors that affect purchasing patterns, and identifying potential profitable investments and opportunities. The course will also survey applications and provide an opportunity for hands on experimentation with algorithms for data mining using software and cases.
Prerequisites: IS 3346, QM 2241, or consent of instructor.

IS 4415 **Big Data Analytics and Visualization (3)**
This course introduces best practices of data analytics to create a more competitive and profitable organization. Students will learn how Big Data interacts with business, and how to apply data analytic methodologies to create value for an organization. The course includes hands-on applications of sophisticated data-analysis functions and methodologies to real world data sets with

cutting edge software and tools. The course also includes business cases of how the leading digital companies embrace big data culture and the use of data analytic techniques to out-compete rivals in their industry and to be more profitable than traditional companies in the global business environments. This course is a capstone course for the concentration.
Prerequisites: IS 3350, IS 4410.

IS 4440 Knowledge Management and Business Intelligence (3)
This course is an introduction to organizational data a business resource, using business intelligence and knowledge management techniques. Emphasis is on developing database management systems (DBMS) as operational data stores and data warehouses for management decision-making, through business analytics, balanced score card metrics, data visualization, data mining, dashboards, and business performance management.
Prerequisites: IS 3346.

IS 4447 Systems Analysis and Design (3)
This course discusses the processes, methods, techniques, and tools to develop information system. The course covers a systematic methodology to analyze business requirements, design information system solution, implement and test information system. This course is the capstone course for the concentration. This course follows a project-based approach that requires students to complete a software implementation project using a systems development lifecycle methodology.
Prerequisites: IS 3346, IS 3350.

IS 4451 Information Security, Assurance and Compliance (3)
This course introduces information security awareness, governance, assurance, and compliance associated with essential network infrastructure. Emphasis is placed on understanding information systems security policy and technology countermeasures across network infrastructure access points including physical security, authentication, access control, encryption, and system management.
Prerequisites: IS 3320.

IS 4460 E-Commerce Design (3)
This course introduces the basic concepts and language of e-commerce. Coverage includes the planning and development of an e-commerce site, including such issues as security, customer service, payment, and marketing. The course is designed to teach students to explore and evaluate e-commerce technologies, sites, and issues.
Prerequisite: IS 4447.

IS 4470 Server-Side Web Development and Administration (3)
This course introduces server side web application development and administration technologies. The course emphases on the ability to design and implement real-world web applications, and the solutions of server related issues including security and scalability.
Prerequisites: IS 3346, IS 3350.

IS 4475 Internet Technology Development (3)
This course introduces web application development technologies in an Internet environment and the related scripting languages. The course emphasis is on developing secure client-side web applications with HTML and JavaScript, and consuming web services.
Prerequisites: IS 3350.

IS 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course.

IS 4498 Information Systems Internship (3)
The Information Systems Internship provides students with the opportunity to gain real-world insurance experience in their field of study. Students are inter-viewed and selected by the individual companies offering the internship. See the Information Systems division chair for details.
Prerequisite: Student must have completed all four required IS courses with a "B" average. Student must have Internship Proposal approved prior to registering for class.

INTERPRETER TRAINING PROGRAM (ITP)

ITP 2200 Introduction to Interpreting: Professional Identity and Ethical Considerations (3)
Introduces basic principles and practices of interpreting. The course is designed to provide an over view of interpreting with respect to professional orientation and identity, including an overview and history of the interpreting industry and work of interpreters, hearing and deaf interpreting teams, certification and licensure, legislation affecting interpreters, 2d vs 3d interpreting work, multiculturalism and the variety of consumers and modalities with which interpreters work. Ethical decision-making models and the Code of Professional Conduct are explored. The course culminates in the students mapping out the competencies required to be successful on interpreting certification exams and resources (including Troy University classes, extra-curricular activities, organizations, etc.) to acquire the competencies.
Pre-requisite: ASL 2242 with a grade of C or better, or permission of ITP academic Advisor.

ITP 3351 ASL/English Linguistics (3)
This course is designed to introduce the linguistics of ASL, including phonology, morphology, syntax and semantics. Geographical, generational, racial and gender differences are explored. English and ASL similarities and differences are highlighted.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3353 Introduction to Interpreting English to ASL (3)
This is a theory-to-practice course in which interpreter trainees are required to analyze message input from a person using the source language (English), and process and produce an equivalent message intended for an individual using the target language (ASL). Cognitive processing skills will be refined with an emphasis on text and situational analyses and self-evaluation. Interpretations will be rendered consecutively.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3360, EDU 3366 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3354 Introduction to Interpreting ASL to English (3)
This is a theory-to-practice course in which interpreter trainees are required to analyze message input from a person using the source language (ASL), and process and produce an equivalent message intended for an individual using the target language (English). Cognitive processing skills will be refined with an emphasis on text and situational analyses and self-evaluation. Interpretations will be rendered consecutively.

Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3360, EDU 3366 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3355 **Transliteration (3)**
Focuses on expressive and receptive transliterating skill development in English and manual Codes for English with attention to setting and register.
Pre-requisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3353, EDU 3354, EDU 3360, EDU 3366 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3360 **Models of Interpretation / Transliteration (3)**
Students will be introduced to various interpreting ncmodels, eluding the Process Model, the Cokely Model, and the Colonomos Model. Students will use the models to analyze interpretations. Self-assessment techniques will be taught and Demand-Control theory will be introduced.
Prerequisite: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3364 **Introduction to Educational Interpreting/ Transliterating (3)**
This course surveys the field of interpreting in educational settings. The focus of the course is on an analysis of the educational environment's impact on the deaf/hard of hearing student and the myriad roles of an interpreter in these settings. Guidelines of professional conduct are presented and specialized subject vocabulary is introduced.
Prerequisite: ASL 2242, ITP 2200, with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3366 **Discourse Analysis I (3)**
Course Description: Introduces the concept of discourse analysis as it relates to ASL and English. Transcriptions and analysis of English discourse and texts will be the focus with the implications to interpreters. Emphasis will be on analyzing messages and metamessages within multicultural settings and understanding the biases and filters interpreters often bring to the interpreted task with assumptions made about the meaning of a text based on the interpreter's own experiences. The overarching goal will be to ensure interpreters are able to analyze a text to understand the conversational signals and devices used.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200 and EDU 3351 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3368 **Interpreting in Specialized Settings (3)**
An introductory course which provides an overview of the ethical considerations, specialized vocabulary and skills needed to interpret in special settings such as performing arts, conferences, legal settings, phone relay, religious and health settings.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 3375 **Introduction to Interactive Interpreting (3)**
Course Description: This is a theory-to-practice introductory course in interactive interpreting in which students will both observe and practice consecutive interactive interpreting, analyze the parts of the process that go into such interactions and interpretations and analyze the resulting work, creating a continuous feedback loop to build awareness and skills in each of the requisite parts.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3360 and EDU 3366 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4452 **Discourse Analysis II (3)**
Course Description: Students will develop a better understanding of the broad methodological areas of discourse analysis and conversation analysis as an approach for understanding signed languages and English, particularly in the context of interpreting. Expands the concepts of discourse analysis as it relates to ASL and interpreted interactions. Transcriptions and analysis of ASL and interpreted discourse and texts will be the focus with the implications to interpreters. Emphasis will be on analyzing messages and metamessages within multicultural settings and understanding the biases and filters interpreters often bring to the interpreted task with assumptions made about the meaning of a text based on the interpreter's own experiences. The overarching goal will be to ensure interpreters are able to analyze a text to understand the conversational signals and devices used are interpreted accurately and effectively across the interpreted boundary from the source message to the target message.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351 and EDU 3366 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4456 **Advanced English to ASL (3)**
Focuses on interpreting/transliterating from spoken English to ASL or Manual Codes for English.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3353, EDU 3366 and EDU 3375 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4457 **Advanced ASL to English (3)**
Focuses on interpreting/transliterating from ASL or Manual Codes for English to spoken English. Students develop appropriate use of register and cross-cultural bridging techniques.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3354, EDU 3366 and EDU 3375 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4458 **Advanced Interactive Interpreting (3)**
Course focuses on consecutive and simultaneous interpreting and transliterating. Students will develop skills in team interpreting in interactive settings.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and ASL 2242, EDU 2200, EDU 3351, EDU 3353,EDU 3354, EDU 3366 and EDU 3375 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4462 **Practicum I: Seminar and Field Experiences (3)**
This is a field experience course in which interpreter trainees have the opportunity to interview, observe, interact with and shadow interpreters in public venues.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and EDU 4452, EDU 4456, EDU 4457 and EDU 4458 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4463 **Practicum II: Seminar and Field Experience (3)**
This is a field experience course in which interpreter trainees have the opportunity to team interpret with credentialed interpreters. Trainees will interpret in one on-one situations for which they are qualified.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and EDU 4452, EDU 4456, EDU 4457 and EDU 4458 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4465 **Internship: Educational Interpreting (6)**
Course Description: The internship provides an opportunity for the student to perform, under supervision, a variety of activities that a regularly employed interpreter would be expected to perform in an educational setting. The interpreter-in-training is involved in interpreting interactions appropriate to his/her skill level and training. Interns receive feedback and supervision from on-site supervisors, group seminar supervisors, team interpreters, consumers, and faculty members. Interns are assigned to an educational setting (k-12 or postsecondary) for 300 clock hours, 120 of which must be in direct interpreting service. Students are also responsible for developing and fulfilling a Service Learning Project (SLP) equivalent to at least 20 hours of planning and 20 hours of service to the community serving children. The SLP shall be in partnership with the community and sustainable.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and EDU 4462 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4466 **Internship: Community Interpreting (6)**
Course Description: The internship provides an opportunity for the student to perform, under supervision, a variety of activities that a regularly employed interpreter would be expected to perform in a community setting. A regularly employed interpreter is defined as a person occupying the professional interpreting role to which the student is aspiring. The interpreter-in-training is involved in interpreted interactions appropriate to his/her skill level and training. Interns receive feedback and supervision from on-site supervisors, group seminar supervisors, team interpreters, consumers, and faculty members. Interns are assigned to a business, organization, interpreting agency, qualified interpreter(s), or rehabilitation setting for 300 clock hours, 120 of which must be in direct interpreting service. Students are also responsible for developing and fulfilling a Service Learning Project (SLP) equivalent to at least 20 hours of planning and 20 hours of service to the community serving adults. The SLP shall be in partnership with the community and sustainable.
Prerequisites: Sign Language Proficiency Interview rating of Intermediate Plus, and EDU 4463 with a grade of C or better, or permission of ITP Academic Advisor.

ITP 4467 **Interpreting Mentorship I: Sign Language/ English Interpreting (3)**
Surveys mentoring approaches in interpreter education in the United States. Topics include definitions of mentorship, knowledge and skills needed to mentor, qualities of mentors and mentees, mentorship management, portfolios as mentoring tools, and approaches to mentoring in the US.
Prerequisites for ITP majors: Only by permission of ITP Academic Advisor on the basis of possessing a nationally validated certification prior to admission and completion of all coursework excluding EDU 4462 and EDU 4463.

ITP 4468 **Interpreting Mentorship II: Sign Language/ English Interpreting (3)**
This course builds on the information presented in Mentoring I, providing opportunities to practice various approaches and develop expertise in interpreting assessment and feedback. Students will develop their own approaches to mentoring and design their Internship project.
Prerequisites for ITP Majors: Completion of all coursework excluding EDU 4462 and EDU 4463 or permission of ITP Academic Advisor.

ITP 4469 **Interpreting Mentorship III: Sign Language/ English Interpreting Practicum (3)**
Supervised mentoring experience with intensive application of mentoring skills. Emphasizes practical application of mentoring through ongoing assessment of interpreting and interpreting settings; provides hands-on opportunities to assess, provide feedback, and receive feedback about both interpreting and mentoring skills.
Prerequisites for ITP majors: Only by permission of ITP Academic Advisor on the basis of possessing a nationally validated certification prior to admission to ITP. Completion of all course work excluding EDU 4470 and successful completion (grade C or better) in EDU 4467 and EDU 4468.

ITP 4470 **Interpreting Mentorship IV: Sign Language/ English Interpreting Internship (3)**
Implements a supervised mentoring project designed in Mentorship II: Interpreting. Applies knowledge and skills acquired and integrates them with real-world experiences in mentoring. Projects are implemented in collaboration with students' home or sponsoring region to provide mentoring in that area.
Prerequisites for ITP majors: Only by permission of ITP Academic Advisor on the basis of possessing a nationally validated certification prior to admission to ITP. Completion of all course work excluding EDU 4469and successful completion (grade C or better) in EDU 4467 and EDU 4468.

ITALIAN COURSES (ITL)

ITL 1101 **Introductory Italian I (3)**
Introduction to the Italian language and culture.

ITL 1102 **Introductory Italian II (3)**
Introduction to the Italian language and culture
Prerequisite: ITL 1101.

JAPANESE COURSES (JPN)

JPN 1101 **Introductory Japanese I (3)**
Introduction to the Japanese language and culture.

JPN 1102 **Introductory Japanese II (3)**
Introduction to the Japanese language and culture.
Prerequisite: JPN 1101 or permission of instructor.

JPN 2201 **Intermediate Japanese I (3)**
Progressive development of basic language skills in Japanese.
Prerequisite: JPN 1102 or permission of instructor.

JPN 2202 **Intermediate Japanese II (3)**
Progressive development of basic language skills in Japanese.
Prerequisites: JPN 2201 or permission of instructor.

JOURNALISM COURSES (JRN)

Note: Reasonable proficiency in keyboarding (25 wpm) is a prerequisite for all journalism courses except COM 1101 and JRN 1103.

JRN 1100 **Technologies in Journalism (3)**
An introduction to the technological advances in journalism and the promotion of an understanding of the impact of these advancements.
Must make a C or better.

JRN 1102 **Writing for the Mass Media (3)**
A basic course in preparing written materials for the mass media and for online communications, with emphasis on using Associate press style and writing leads.
Prerequisites: ENG 1101, 1102, JRN 1100, with grade of C or better in each course.
May be taken concurrently with JRN 1100.
Must make at least C or better in JRN 1102 before taking JRN 2201.

JRN 1103 **Introduction to Radio and Television (3)**
An introduction to the electronic forms of mass communication with discussions on the theoretical and business aspects of radio and television, cable and corporate video communications, and an introduction to programming and regulations.

JRN 2201 **Reporting (3)**
Gathering, evaluating and reporting the news for traditional and online media.
Prerequisite: Completion of JRN 1102 with grade of C or better. Must make at least C or better in JRN 2201 before taking 3000 level or higher Journalism courses.

JRN 2211 **Editing and Design (3)**
Editing copy and video, headline writing, layout and design for print, video and electronic publications plus online communications.
Prerequisites: JRN 1100 and 1102. Must make a C or better in JRN 2211 to receive credit toward degree.

JRN 2289 **Social Media Practicum (1)**
Social Media has become an instrumental tool of communication for businesses and organizations of all sizes. Understanding how to use social media effectively as a professional resource is a skill important for any graduate. This course will provide students with real-world lessons and practical experience in the use and function of social media as a tool for public relations outreach and communication.
Prerequisite: ENG 1101 or permission of the instructor.

JRN 3300 **Digital News Photography (3)**
Discussion of and practical experience in digital and video photography for print, broadcast, electronic and online media.

JRN 3302 **Feature and Magazine Article Writing (3)**
Researching and writing feature stories with emphasis on covering issues and trends in magazines, electronic and online publications, pitching ideas to editors and marketing articles as a freelancer.
Prerequisite: JRN 2201.

JRN 3312 **Advanced Editing (3)**
Advanced study and practice in layout and design of newspapers, electronic publications and online media, including special pages and editions; typography and graphics; copy editing and video.
Prerequisite: JRN 2211.

JRN 3315 **Advanced Reporting (3)**
News reporting and writing on sports, business, consumer affairs, the environment, and public affairs, particularly local and state government, the courts and education, in a multimedia environment including print, video and online communications. Emphasis is placed on use of background research and multiple sources and writing on deadline.
Prerequisite: JRN 2201. Must make a C or better in JRN 3315 to receive credit toward degree.

JRN 3326 **Advising Student Publications (3)**
Students successfully completing this class will have the ability to teach journalism, including how to produce magazine and newspaper layout; develop copy and/or storyboard for radio and television production; apply techniques of advertising, reporting and editing; and use current and emerging technology in the production of print and non-print journalism.

JRN 3327 **Sports Broadcasting (3)**
Advanced methods, techniques and performance styles for broadcast sports news and information.

JRN 3330 **Journalism Practicum (1 to 3 credit hours)**
Supervised journalism-related experiences focusing on gathering information, writing, editing, photography, design, online journalism, electronic journalism, broadcast journalism, advertising and/or public relations.

JRN 3340 **Introduction to Mobile Journalism (3)**
The concepts and technologies for this course include newsgathering through multiple digital methods and storytelling across multiple platforms from the field.
Smartphones or computer tablets are required.
Prerequisite: JRN 2201.

JRN 3360 **Broadcast News Writing (3)**
Gathering, evaluating, writing and performing broadcast copy. Applies news gathering techniques to the broadcast writing style, on-the-scene coverage, interviewing and announcing. Must make a C or better.
Prerequisite: JRN 2201.

JRN 3365 **TV Studio Techniques and Producing (3)**
An introduction to the production elements, theories and procedures of producing news broadcasts for television. Lighting, set design, preparation, operation of equipment, graphics, editing, responsibilities of those members involved in the production, electronic news gathering (ENG), operation of remote equipment and interviewing are topics discussed in this class.

JRN 3380 **Global Journalism and International Media Systems (3)**
An examination of international and domestic mass media systems, the flow of information and technology, and issues of media ownership, access, regulations, programming and cultural differences in international communications.

JRN 4400 **Special Topics in Journalism (1 to 3 credit hours)**
Lecture, discussion, and research course designed to acquaint students with special topics in the fields of broadcast and print journalism. May be taken for a maximum of six hours.
Prerequisite: JRN 1100

JRN 4401 **Community Media Management (3)**
Discussion of special problems and management techniques of print, broadcast, cable, online media, public relations and communication organizations.

JRN 4403 **Radio News Practicum (3-6)**
Supervised experience in gathering, writing and performing radio news broadcasts.
Prerequisite or Co-requisite: JRN 3360 or permission from the instructor.

JRN 4405 **Radio Production Practicum (3-6)**
Supervised experience in radio studio work. Includes audio techniques for both public affairs and musical productions, tape editing, and use of automated programming.
Prerequisite or Co-Requisite: JRN 3360 or permission from the instructor.

JRN 4410 **Advanced Radio Practicum (3-6)**
Emphasis on individualized work in radio news or production.
Prerequisite: JRN 4403 or 4405.

JRN 4413 **Television News Practicum (3-6)**
Supervised experience in gathering, writing and performing for a daily news broadcast.
Prerequisite or Co-requisite: JRN 3360 or permission from the instructor.

JRN 4415 **Television Production Practicum (3-6)**
Supervised experience in technical television work. Includes in-studio and remote camera operation, lighting, video tape editing and directing.

JRN 4420 **Advanced Television Practicum (3-6)**
Emphasis on individualized work in television news or production.
Prerequisite: JRN 4413 or permission from the instructor.

JRN 4421 **Opinion Writing (3)**
Writing and editing of opinion for print, broadcast, electronic and online communication systems, with extensive practice in writing editorials and opinion columns.
Prerequisite: JRN 2201.

JRN 4425 **Multimedia Law (3)**
The rights and restrictions of the press: the First Amendment, privilege, libel, slander, contempt, right of privacy, etc.
Prerequisite: Junior standing or above.

JRN 4427 **Sports Reporting (3)**
Advanced methods, techniques, and writing styles for reporting sports news and information.
Prerequisite: JRN 2201.

JRN 4430 **Processes and Effects of Mass Communication (3)**
This course provides students with an understanding of the development of the most notable, historical, social scientific and empirically grounded theoretical perspectives with regard to mass communication. In addition, analysis and interpretation of these theories will be addressed.

JRN 4440 **Advanced Technologies in Journalism (3)**
An introduction to using advanced technologies and on-line reporting techniques in journalism and public relations.

JRN 4445 **Mobile Journalism Practicum (3)**
Supervised experience in mobile journalism reporting, including in-depth fieldwork and producing original content to build student portfolios.
Smartphones or computer tablets are required.
Prerequisite: JRN 3340.

JRN 4450 **Electronic Publishing (3)**
This is a hands-on mastery course in using words, images, video, sound and social media to communicate in an interactive and online environment.

JRN 4460 **Network Sports Production (3)**
Supervised experience in television sports production, including in-depth fieldwork with the Troy University Athletics Department and the sports network, ESPN3. Students will shoot and edit sporting events for use on ESPN3. Weekend work is required.

JRN 4489 **Internship (5)**
Supervised work that can provide practical experience in the field of study.
Prerequisites: At least junior standing and approval of the academic adviser and departmant chair.

JRN 4490 **Field Experience (1-7)**
Supervised study in the practical application of issues related to journalism and communication.
Prerequisites: Approval of the director of the School of Journalism and Communication.

JRN 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

JRN 4493-94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

JRN 4495 **Communication Seminar (1)**
Study of issues related to communication theory, the history and future of communication industries, the impact of online communication and ethics. Additionally, students will create a professional portfolio.
Prerequisite: This class if for Juniors and Seniors only.

KINESOLOGY AND HEALTH PROMOTION COURSES (KHP)

KHP 1101 **Badminton (1)**
Physical education activity course.

KHP 1107 **Swimming (1)**
Physical education activity course.

KHP 1108 **Tennis (1)**
Physical education activity course.

KHP 1109 **Intermediate Swimming (1)**
Physical education activity course.

KHP 1110 **Paddle Tennis (1)**
Physical education activity course.

KHP 1111 **Archery (1)**
Physical education activity course.

KHP 1112 **Advanced Swimming (1)**
Physical education activity course.

KHP 1122 **Water Aerobics (1)**
Physical education activity course.

KHP 1124 **Beginning Yoga (1)**
Course will introduce students to yoga as a different type of exercise. Students will explore the opportunity for yoga to become a lifetime activity in order to promote health and wellness in their daily routines.

KHP 1134 **Ballroom Dance (1)**
An introduction to social dancing with an emphasis on American ballroom dances (foxtrot, waltz, swing) and Latin ballroom dances (cha cha, mambo, tango). Equivalent to DAN 1134.

KHP 1139 **Fitness for Life I (1)**
Physical education activity course.

KHP 1141 **Jogging (1)**
Physical education activity course.

KHP 1142 **Weight Training (1)**
Physical education activity course.

KHP 1144 **Step Aerobics (1)**
Physical education activity course.

KHP 1146 **Physical Defense for Women (1)**
Physical education activity course.

KHP 2200 **Health Concepts (1)**
A study of health concepts that characterizes a process in the life cycle that is typical of every individual.

KHP 2201 **Camping and Outdoor Education (2)**
Camping, leadership and program planning.

KHP 2202 **First Aid and Safety and CPRO (2)**
Community first aid and safety instruction and CPRO for the professional following American Red Cross techniques.

KHP 2208 **Intermediate Tennis (1)**
Physical education activity course.

KHP 2211 **Human Nutrition (3)**
Explores the relationship between nutrition and health. Emphasizes the roles of nutrients, their utilization in the human system and their contributions to the health of individuals of all ages. Includes dietary patterns, of various cultural, ethnic and religious groups, nutritional assessments, and food safety. Open to all majors.

KHP 2212 **First Aid and CPRO Recertification (1)**
Community first aid and safety instruction and CPRO for recertification.
Prerequisite: Proof of certification in American Red Cross Community First Aid and Safety/CPRO

within 1 year of start date of class. Permission of instructor or department chair.

KHP 2239 **Fitness for Life II (1)**
Physical education activity course.

KHP 2240 **Personal and Community Health (3)**
Personal health as it applies to practices, knowledge and behavior.

KHP 2241 **Intermediate Jogging (1)**
Physical education activity course.

KHP 2242 **Intermediate Weight Training (1)**
Physical education activity course.

KHP 2246 **Advanced Physical Defense for Women (1)**
Physical education activity course.
Prerequisite: Grade B or better in KHP 1146.

KHP 2250 **Foundations of Health Science (1)**
A study of the historical, philosophical and theoretical foundations of health education and health promotion, including the current status and projected trends in health education and promotion.

KHP 2251 **Foundations of Physical Education & Health (3)**
A study of the history and principles of health education and physical education with particular emphasis placed on present practices and trends in exercise science.
Prerequisite: Student must be a Health, Physical, Exercise, Elementary, Collaborative K-6, or Collaborative 6-12 Education Major.

KHP 2252 **Methods of Teaching Dance (3)**
Social, folk and square dancing, including basic rhythmic activities which can be taught in elementary, middle and high schools. Equivalent to DAN 2252.
Prerequisite: Permission of instructor.

KHP 2260 **Applied Fitness Concepts (2)**
Personal conditioning-based course focusing on training principles, modes of exercise, training tools, performance enhancers, measurement concepts and exercise prescription.

KHP 2263 **Lifeguard Training (3)**
Organization and teaching of the fundamental skills for water safety and the prevention of drowning.
Prerequisites: Advanced swimming or permission of instructor.

KHP 2270 **Intermediate Military Fitness and Exercise (2)**
Students will develop overall cardio-respiratory fitness, muscular endurance and strength; plan and develop an individual physical training program; enhance individual knowledge of fitness and well being; and understand the principles of exercise and components of fitness.

KHP 2276 **Theory and Techniques of Coaching Softball (2)**
Development of basic skills necessary for team play, squad organization, rules, scouting procedures, team conditioning, and equipment needs.

KHP 2277 **Theory and Techniques of Coaching Football (2)**
Offensive and defensive techniques, purchase and care of equipment, budgeting, ethics, rules, scouting and team conditioning.

KHP 2278 **Theory and Techniques of Coaching Soccer (2)**
The development of basic skills necessary for team play, squad organization, rules, scouting procedures, term conditioning and equipment needs.

KHP 2279 **Theory and Techniques of Coaching Volleyball (2)**
Offensive and defensive techniques, purchase and care of equipment, budgeting, squad organization, rules, scouting and team conditioning.

KHP 2281 **Theory and Techniques of Coaching Baseball (2)**
Offensive and defensive techniques, purchase and care of equipment, budgeting, batting and field drills, rules, scouting and team conditioning.

KHP 2282 **Theory and Techniques of Coaching Basketball (2)**
Offensive and defensive techniques, purchase and care of equipment, budgeting, squad organization, rules, scouting and team conditioning.

KHP 3310 **Introduction to Food Science (3)**
This course provides a basic study of the chemical and biological principles of food and food preparation techniques including food quality, nutrition, safety, processing, meal management, and laws regulating food handling.
Co-requisite: KHP L310.
Prerequisites: None. Open to all majors.

KHP L310 **Introduction to Food Science Lab (1)**
Experimental and observational techniques in food preparation.
Co-requisite: KHP 3310.
Prerequisites: None. Open to all majors.

KHP 3311 **Nutritional Assessment (3)**
This course provides a study and application of techniques for assessing dietary, anthropometric, and biochemical indices in normal and selected clinical and community settings. Assessment techniques will be explored in the context of nutrition screening, chronic disease prevention, and intervention effectiveness.
Prerequisite: KHP 2211 or NSG 2204.

KHP 3315 **Complementary and Alternative Therapies (2)**
This course provides the study and application of knowledge of contemporary and alternative therapies (CAT). Federal regulations, cultural beliefs, evidence-based research, perceived benefits, and risks will be explored.
Prerequisite: KHP 2211 or NSG 2204.

KHP 3316 **Community Nutrition (3)**
This course provides knowledge relevant to public health nutrition and the role of the federal government in establishing nutrition policy in the context of the demographic profile of the United States. Concepts include nutritional epidemiology, public health monitoring through food and nutrition surveys, nutrition programs to reduce health disparities and address diet-related chronic disease, and nutrition issues of special populations.
Prerequisites: KHP 2211 or NSG 2204 or permission of instructor.

KHP 3330 **Physical Skills Proficiency I (2)**
This course covers rules, regulations, terms, origin, development, safety, equipment and performance of skills of specified sport activities including archery, soccer, conditioning and track and field which are related to KHP 4485/4486.

KHP 3331 **Physical Skills Proficiency II (2)**
This course covers rules, regulations, terms, origin development, safety, equipment, and performance of skills of specified sport activities including badminton, swimming, volleyball, and tennis which are related to KHP 4485/4486.

KHP 3350 **Psychology of Wellness and Performance (3)**
Theory and practical application of psychological factors that impact wellness and performance of individuals and groups.

KHP 3352 **Kinesiology and Efficiency of Human Movement (3)**
General anatomy, joint and muscle function, and analysis of body movements.
Prerequisites: Grade of C or better in KHP 3360 or BIO 3347/L347 and BIO 3348/L348.

KHP 3360 **Physiological Principles of Body Systems (3)**
This course will examine the structure, function and control mechanisms of the following body systems: musculoskeletal, nervous, endocrine, cardiovascular, and respiratory. Metabolism, temperature regulation and fluid, electrolyte and acid base balance will also be discussed.
Prerequisites: Grade of C or better in BIO 1100/ L100 and CHM 1142/L142; or SCI 2233/L233; or PHY 2252/L252.

KHP 3361 **Integrating HPER into the Curriculum (3)**
Methods and materials of teaching physical education for grades K-6.
Prerequisite: EDU 3310.

KHP 3363 **Lifeguard Training Instructor (3)**
Review of all physical skills included in lifeguard training. Course will consist of theory and techniques of organizing and conducting the lifeguard training instructor course.
Prerequisite: KHP 2263.

KHP 3368 **Water Safety Instructor (WSI) (2)**
Organization and teaching swimming and water safety programs.
Prerequisite: Swimming Certificate.

KHP 3369 **Scuba (2-4)**
Basic techniques of scuba diving.
Prerequisites: In addition to lab fee, a student is required to purchase mask, fins, snorkel, weight belt and weights. Students are also required to make two trips for final certification. The student will be responsible for the cost of transportation, food and lodging during the two trips.

KHP 3391 **Testing and Statistical Interpretation (3)**
Test selection, analyzing test scores and measurement as a technique of evaluation in evaluation in health education and physical education.
Prerequisites: admission to TEP.

KHP 3395 **Care and Prevention of Athletic Injury (2)**
The study of basic care and prevention, evaluation, management and rehabilitation of athletic injuries.
Prerequisites: Grade of C or better in BIO 3347/ L347 and BIO 3348/L348 or KHP 3360.

KHP 4400 **Sports Officiating and Programs in Intramurals (3)**
Focuses on school and community recreation programs, including sports, games and officiating techniques.

KHP 4405 **Physical Activity and Disease Prevention (3)**
This course will explore the link between physical activity and the major diseases experienced by modern day humans. Evidence for and against the potential benefits of physical activity will be reviewed for conditions such as coronary heart disease, cancer, stroke, diabetes, arthritis, low back pain, asthma, infection, high blood cholesterol, high blood pressure, obesity and stress.
Prerequisites: Grade of C or better in BIO 1100/ L100 and CHM 1142/L142 or PHY 2252/ L252 or SCI 2233/L233, and KHP 3360 or BIO 3347/L347 and BIO 3348/L348.

KHP 4410 **Motor Development (3)**
An analysis of the ways in which children develop movement capabilities.
Prerequisite: Junior standing or above.

KHP 4427 **Health Behavior (3)**
The theoretical foundations of health behavior and evaluation and their application to health practice.
Prerequisite: KHP 2240.

KHP 4435 **Current Issues in Sport and Fitness Management (3)**
This course is designed to serve as a mechanism for the introduction of new information and technology issues for the sport industry. This course will encourage the undergraduate sport and fitness management student to remain current with contemporary developments in the sports industry.
Prerequisites: KHP 3355 and nine additional hours of 4000 level KHP courses.

KHP 4442 **Health Education (3)**
Course focuses on school health organization, services and institutions, grades N-12.
Prerequisite: admission to TEP.

KHP 4458 **Lifecycle Nutrition (3)**
This course provides an examination of nutrition concerns, requirements and metabolism from a biological, psychosocial, and cultural perspective from conception through late adulthood. The impact of nutrition on preconception, pregnancy, lactation, infancy, adolescence, adulthood, and aging will be studied in the context of normal nutrition and nutrition-related special conditions and interventions.
Prerequisites: KHP 2211 or NSG 2204.

KHP 4459 **Sport and Exercise Nutrition (3)**
This course examines the special dietary requirements of physically active individuals and athletes in training. The course will cover the basics of nutrition and bioenergetics along with current issues such as fad diets and disordered eating, pre-competition meals, sports drinks, mineral supplements, and other various ergogenic aids.
Prerequisites: Grade of C or better in KHP 4474/ L474.

KHP 4460 **Principles of Strength and Conditioning (3)**
This course will enable the student to develop knowledge and expertise in the areas of strength training, cardiovascular endurance, flexibility, reaction time, speed, and agility in traditional and non-traditional sports. Emphasis will be placed on implementation and measurement of the above programs in conjunction with athletic development.
Prerequisites: Grade of C or better in KHP 3360 or BIO 3347/L347 and BIO 3348/L348 and KHP 3352. Co-requisite: KHP L460.

KHP L460 **Principles of Strength and Conditioning Lab (1)**
This lab is designed to develop practical knowledge and expertise in the areas of strength training, cardiovascular endurance, flexibility, reaction time, speed, and agility in traditional and non-traditional sports. Emphasis will be placed on implementation and measurement of the above programs in conjunction with athletic development.
Co-requisite: KHP 4460.

KHP 4462 **Physical Education for Exceptional Children (3)**
This course explores programs to serve the needs of the exceptional child in schools.
Prerequisites: KHP 3361.

KHP 4465 **Classroom Management and Organization for HPE (3)**
This course will explore the issues of organization, curriculum, and classroom management as they relate to the physical education environment. Directed field requirements will be presented and observation hours will be conducted.
Prerequisite: admission to TEP.

KHP 4472 **Internship in Health/Physical Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.

Prerequisite: admission to TEP. Co-requisite: IED 4454.

KHP 4474 Exercise Physiology (3)
Physiological mechanisms and adaptations of cells, tissues, organs and systems during physical activity.
Prerequisites: Grade of C or better in KHP 3360 or BIO 3347/L347 and BIO 3348/L348.
Co-requisite: KHP L474.

KHP L474 Exercise Physiology Lab (1)
Course will provide experience for applied exercise physiology principles as students are introduced to laboratory and field tests of muscular strength, anaerobic power, maximal oxygen uptake, body composition and other physiological measurements.
Co-requisite: KHP 4474.

KHP 4475 Exercise Testing and Prescription (3)
Course will examine the criteria for evaluation of health status of persons wishing to begin an exercise program, guidelines of establishing current fitness level, and the basic principles of exercise prescription. Levels of certification and criteria by ACSM will also be discussed.
Prerequisites: Grade of C or better in KHP 4474/ L474.

KHP 4476 Laboratory Practicum in Exercise Performance (2)
Students will be introduced to some of the measurement techniques routinely used in exercise physiology and will gain practical experience in administration of these tests. Emphasis will be placed on how to avoid measurement errors.
Prerequisite: Grade of C or better in KHP 4475.

KHP 4481 Methods and Materials for the P-12 Physical Educator (3)
Teaching methods, selection, organization and use of physical education materials in grades P-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson plan formatting. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

KHP 4485 Teaching Individual and Team Sports I (3)
Teaching methods, techniques, and officiating badminton, swimming, tennis and volleyball.
Prerequisite: KHP 3330, KHP 3331, and KHP 3391.

KHP 4486 Teaching Individual and Team Sports II (3)
Teaching methods, techniques, and officiating archery, conditioning, soccer, and track and field.
Prerequisite: KHP 3330, KHP 3331, and KHP 3391.

KHP 4487 Special Topics in Exercise Performance (2)
An intensive study of selected topics in exercise science. Topics to be taught each term TBA.
Prerequisite: KHP 4474 or permission of instructor.

KHP 4488 Issues and Practice in Cardiac Rehabilitation (3)
Course will examine the policies and procedures of cardiac rehabilitation programs. Students will be introduced to the phases of cardiac rehabilitation programs, administration and reporting of graded exercise stress tests, administration of exercise sessions, reporting procedures, and techniques of successful patient educational programs.
Prerequisite: Grade of C or better in KHP 4475.

KHP 4490 Internship in Area of Concentration (6)
A supervised experience in planning, staging and evaluating a formal practicum in related field.
Prerequisite: KHP 4443, 4499, permission of the department chair.

KHP 4491-92 Guided Independent Research (1 to 3 credit hours)
Additional information is indexed under Independent Study and Research.

KHP 4493-94 Guided Independent Study (1 to 3 credit hours)
Additional information is indexed under Independent Study and Research.

KHP 4495 Advanced Exercise Physiology (3)
This course will allow students to experience and explore advanced concepts and topics related to exercise physiology.
Prerequisites: Grade of C or better in KHP 4474.

KHP 4496 Biomechanics (3)
The study of anatomical, mechanical, and neurophysiological factors influencing human motion. Emphasis is given to the qualitative and quantitative application of biomechanical principles to analyze human movement.
Prerequisites: Grade C or better in KHP 3352
Co-requisite: KHP L496.

KHP L496 Biomechanics Lab (1)
The measurement and assessment of anatomical, mechanical, and neurophysiological factors influencing human motion. Emphasis is given to the qualitative and quantitative application of bio-mechanical principles to analyze human movement.
Co-requisite: Grade of C or better in KHP 4496.

KHP 4497 Senior Seminar in Exercise Science (1)
Students will examine trends in the industry, career paths, and discuss current topics in wellness, fitness, sport, nutrition, athletic training, and physical therapy. This course will also address the standards, behaviors, and expectations of the exercise scientist.
Prerequisite: Sr. standing or permission of instructor.

KHP 4498 Internship in Exercise Science (3)
A supervised experience in planning, staging, and evaluating a formal practicum in exercise science or a related field.
Prerequisite: Senior standing or permission of instructor.

KOREAN COURSES (KOR)

KOR 1101 Introductory Korean I (3)
Introduction to the Korean Language.

KOR 1102 Introductory Korean II (3)
Introduction to the Korean Language.
Prerequisite: KOR 1101 or permission of instructor.

KOR 2201 Intermediate Korean I (3)
Progressive development of basic language skills in Korean.
Prerequisite: KOR 1102 or permission of instructor.

KOR 2202 Intermediate Korean II (3)
Progressive development of basic language skills in Korean.
Prerequisite: KOR 2201 or permission of instructor.

LANGUAGE AND CULTURE ON LOCATION (LCL)

LCL 3301 Language and Culture on Location I (3)
The study of selected languages and/or cultures on location.

LCL 3302 Language and Culture on Location II (3)
The study of selected languages and/or cultures on location.

LATIN COURSES (LAT)

Note: For additional information, see Placement in Academic Courses.

LAT 1131 **Introductory Latin I (3)**
Introduction to the Latin language with emphasis on pronunciation, basic vocabulary, fundamentals of grammar, and graded readings.

LAT 1132 **Introductory Latin II (3)**
Continuation of LAT 1131.
Prerequisite: LAT 1131 or permission of instructor.

LAT 2231 **Intermediate Latin I (3)**
Continuation of LAT 1131-1132.
Prerequisite: LAT 1132 or permission of instructor.

LAT 2232 **Intermediate Latin II (3)**
Continuation of LAT 2231, culminating in the reading of authentic passages from selected Latin authors.
Prerequisite: LAT 2231 or permission of instructor.

LAT 3331 **Readings in Latin Literature (3)**
Readings in a selected author, period, or genre.
May be repeated for credit. Prerequisite: LAT 2232 or permission of instructor.

LAW COURSES (LAW)

LAW 2221 **Legal Environment of Business (3)**
This course is an introduction to the fundamental concepts, principles, and rules of law and equity that apply to business activities. This course provides an overview of law in general, the American legal system, federal and state court procedures, effects on law-making by legislative, judicial, and administrative procedures. The course may also include constitutional law, business ethics, contracts, products liability, sales and commercial paper.
All business majors must complete this course with a grade of C or better.

LAW 3323 **Legal and Ethical Aspects of Competition For Entrepreneurs (3)**
This course is designed to go beyond LAW 2221 (Legal Environment of Business) and to provide an opportunity to explore in-depth the types of legal and ethical issues that entrepreneurs, small business owners, and family business owners encounter in the worlds of domestic and international aspects of competition.
Prerequisite: Lower-level Core, MGT 4475.

LAW 4420 **Administrative Law (3)**
Administrative law is the law relating to administrative agencies. An overview of the legal environment of public administration. The focus is on the powers and procedures of administrative agencies including administrative discretion, rule-making, investigations, prosecuting, negotiating and settlement based on Constitutional law, statutory law, common law, and agency-made law and the liability of governments and their officers.
Prerequisite: LAW 2221.

LAW 4425 **Investigation and Evidence (3)**
An examination of theories and practices of the investigation process in the criminal justice system. An analysis of information and application of operational techniques relating to crime scenes, forensic sciences, interviews, and interrogations. A study of issues concerning rules of evidence, trial testimony, and other constitutional processes.
Prerequisites: LAW 2221.

LEADERSHIP COURSES (LDR)

LDR 1100 **Introduction to Leadership (3)**
This course helps students apply leadership knowledge, skills and techniques to campus and community activities. Practical exercises, role-playing, class interaction and lecture / discussion with established leaders reinforce learning and aid each student in developing a personal leadership plan.

LDR 2200 **Tools for Leaders (3)**
This course helps developing leaders use tools essential to effective leadership including briefing, writing, delegation, media relations, meeting management and group dynamics skills.
Prerequisite: LDR 1100.

LDR 2221 **Case Studies in Leadership I (1)**
Case Study/Studies of a specific person or persons who have demonstrated leadership attributes that can be applied to leadership development today.
Permission of Instructor required.

LDR 2222 **Case Studies in Leadership II (1)**
Case Study/Studies of a specific person or persons who have demonstrated leadership attributes that can be applied to leadership development today.
Permission of Instructor required.

LDR 2223 **Case Studies in Leadership III (1)**
Case Study/Studies of a specific person or persons who have demonstrated leadership attributes that can be applied to leadership development today.
Permission of Instructor required.

LDR 3300 **Leadership Theory (3)**
This course helps students understand and apply what writers, theorists and leaders tell us about how to lead effectively in a rapidly changing world. The course also exposes students to what leaders are reading. Experienced leaders will provide guest instruction.
Prerequisite: LDR 2200.

LDR 3310 **Leadership and Interpersonal Skills (3)**
This course will focus on analyzing and applying the theories and research regarding the interpersonal skills required for leaders. Emphasis will also be placed on enhancing and developing interpersonal leadership skills in each student.
Prerequisites: LDR 3300.

LDR 3320 **Great Leaders (3)**
We significantly increase our understanding of leadership if we view leadership as practiced in the context of the world around us. An excellent way to do this is to evaluate the lives of those who have been recognized as great leaders in many different eras, fields, and environments. The issues they faced and how they led provide wonderful insight on how to lead. We will analyze their successes and their failures and learn from both. We will evaluate the best of leadership practices by studying the lives of great leaders throughout history.
Prerequisites: LDR 3300.

LDR 4400 **Leadership Seminar (3)**
A capstone course that includes principles, practices and presentations by experienced leaders from the public and private sectors. This course helps developing leaders synthesize knowledge and prepare for future leadership challenges.
Prerequisites: Leadership minor or enrollment in the University Honors Program or permission of instructor.

LDR 4402 **Leadership Seminar Field Experience (2)**
This course includes field trips to visit CEOs, senior state government officials and military leaders, as well as business and dinner etiquette training and one-on-one mentoring by campus faculty and administrative leaders. This course is open to a limited number of developing leaders who

have been active in campus and/or community activities.
Prerequisite: Permission of instructor.
Co-requisite: LDR 4400.

LDR 4444 Leadership Internship (3 to 6 credit hours, may be repeated for no more than 6 total hours)
Supervised internship in an office or location approved by the director of the Institute for Leadership Development, resulting in deliverables agreed upon by the director and intern.
Prerequisites: junior or senior status, and permission of leadership adviser. Students will submit a written request to the director at least two weeks in advance of the term in which study is to be undertaken.

LDR 4450 Leadership Service Learning (1 to 6 credit hours, may be repeated for no more than 6 total hours)
Supervised service learning leadership on a project with an agency or aligned with a service organization as approved by the director of the Institute for Leadership Development.
Prerequisites: junior or senior status and permission of leadership advisor. Students will submit a written request to the director at least two weeks in advance of the term in which study is to be undertaken.

LDR 4493-94 Guided Independent Study (1 to 3 credit hours)
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: junior or senior status, permission of leadership advisor. A written request must be submitted to the instructor at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course in which a grade of D or below has been earned.

LEGAL STUDIES COURSES (LGL)

LGL 2200 Introduction to Legal Studies (3)
This course provides an introduction to the structure and processes of the American legal system as well as study of the development and patterns of growth of the legal profession (including, but not limited to the responsibilities, requirements and benefits for attorneys, judges, prosecutors, jury analyst, specialized testimony experts, forensic investigators and paralegals). Focus is placed on the examination of the central issues and processes of the entire legal system and how individuals and "workgroups" cooperatively organize and influence the American legal system.
This course will satisfy the prerequisite of CJ 1101 for CJ 3352, CJ 4442 and CJ 4447 for Legal Studies minors.

LGL 3300 Legal Research and Writing (3)
This course will provide a comprehensive working knowledge and understanding of research materials and research tools. Key competencies will include the use of both manual and automated forms of legal references, understanding and distinguishing sources of law, legal research skills and the analysis of legal research problems.
Prerequisite: ENG 1101.

LGL 4400 Seminar in Legal Studies (3)
The course will include an overview of the legal assisting profession, the duties and ethical responsibilities of the legal professionals including the attorney's code of conduct. It will examine law office practices and procedures, which includes case assignment, document handling and filing, time keeping, billing and law office communication. Furthermore, this course provides the facts and principles that form the basis of law related to Criminal Prosecution and Defense, Bankruptcy, Business Organizations, Litigation, Real Estate, and Estate Planning and Probate.

MARINE BIOLOGY COURSES (MB)

Offered at Dauphin Island Sea Lab (DISL) only
Courses are offered during the summer semester only. Because course offerings change, check current DISL summer bulletin for specific course offerings and descriptions.

MB 4402 Marine Invertebrate Zoology (4)
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 a required part of the course.
Prerequisites: BIO 1101/L101, 2229/L229, CHM 1143/L143.

MB 4403 Marine Vertebrate Zoology (4)
Biology of marine vertebrates emphasizing systematics, behavior, physiology, and ecology of local forms.
Prerequisites: BIO 1101/L101, BIO 2229/L229, CHM 1143/L143.

MB 4404 Marine Botany (4)
A general survey of algae and vascular plants associated with the marine and estuarine environment.
Prerequisites: BIO 1101/L101, 2229/L229, CHM 1143/L143.

MB 4410 Introduction to Oceanography (4)
A general introduction to the physics, chemistry, geology, and biology of the oceans.
Prerequisites: BIO 1101/L101, 2229/L229, CHM 1143/L143.

MB 4419 Marine Aquaculture (2)
Techniques in live animal culture with an emphasis on basic principals that can be applied to the culture of any organism for research, display, or commercial profit.
Prerequisites: BIO 1101/L101, 2229/L229, CHM 1143/L143.

MB 4423 Marine Ecology (4)
Lecture and laboratory studies of bioenergetics, community structure, population dynamics, predation, competition, and speciation in marine ecosystem.
Prerequisites: BIO 1101/L101, BIO 2229/ L229,CHM 1143/L143.

MB 4428 Shark and Ray Biology (2)
An introduction to the biology of sharks and rays, with special emphasis on regional shark fauna and field techniques.
Prerequisites: BIO 1101/L101, BIO 2229/L229, CHM 1143/L143.

MB 4430 Dolphins and Whales (2)
Lectures, audiovisual presentations, and practical exercises to guide students to further study of cetaceans.
Prerequisites: BIO 1101/L101, BIO 2229/L229, CHM 1143/L143.

MB 4432 Biology and Conservation of Marine Turtles (2)
An overview of the biology and conservation of marine turtles, including identification, distribution, nesting behavior, migratory behavior, and feeding ecology.
Prerequisites: BIO 1101/L101,BIO 2229/L229, CHM 1143/L143.

MB 4438 Coastal Wetlands Ecology (3)
This course will focus on coastal and near shore wetland areas, with an emphasis on the biogeochemical processes that occur within.
Prerequisites: BIO 1101/L101, BIO 2229/L229, CHM 1143/L143.

MB 4460 **Introduction to Neurobiology (4)**
The study of the structure, development, physiology, and pharmacology of the nervous systems and sense organs.
Prerequisite: Permission of instructor.

MB 4470 **Marine Restoration Ecology (2)**
The course provides an overview of the scientific and technical principles of marine habitat restoration. The students will discuss the role of key ecological concepts in restoration and the role of restoration in science and society. Students will learn how to design restoration projects and monitoring plans.
Prerequisites: CHM 1142/L142, BIO 2229/L229.

MANAGEMENT COURSES (MGT)

MGT 3300 **Principles of Management (3)**
An introduction to management functions, principles, and techniques. The course includes a discussion of planning, organizing, influencing through leadership, and control within the organization.

MGT 3380 **Principles of Supervision (3)**
An introduction to supervision principles, best practices and concepts. Topics discussed include delegation, planning and goal setting, employee training and motivating team coaching, communicating, and appraising.
Prerequisites: Lower-level Core, MGT 3300.

MGT 4440 **Developing and Leading Effective Teams (3)**
An in-depth study of team development and team leadership in the work setting focused to better understand team functions under varying task conditions. Special emphasis will be placed on the leadership of work teams in both face-to-face and virtual settings for effective performance and member satisfaction. This course deals extensively with maintenance and task behaviors of team members.
Prerequisites: Lower-level Core, MGT 3300, QM 3345.

MGT 4460 **Introduction to Project Management (3)**
This course provides an introduction to essential principles governing effective project management and an application of tools and techniques that can be applied to defining projects, establishing task structure, planning and budgeting, managing of resources to achieve the project objectives, and post project evaluation.
Prerequisites: Lower-level Core, MGT 3300, QM 3345.

MGT 4471 **Leadership and Change (3)**
A study of leadership and change concepts applied to foundational concepts of leadership, motivational theories, and organizational change theories. The primary focus of the course will be directed toward the application of these theories, practices, and concepts in an organizational setting, designed to enable an achievement of organizational goals and objectives, while also undertaking application oriented activities that encourage the development of critical thinking skills about the concepts. Emphasis will be placed on key similarities and differences between US organizations and international organizations.
Prerequisite: Lower-level Core, MGT 3300.

MGT 4472 **Organizational Behavior (3)**
A study of individual and group behavior in business organizations.
Prerequisite: Lower-level Core, MGT 3300.

MGT 4475 **Entrepreneurial Management (3)**
This course examines how startups, small companies & family enterprises reach the marketplace and sustain their businesses. The course centers around the development of the business plan, focusing on creativity and innovation. Emphasizes entrepreneurial opportunities & new venture processes both domestically and internationally. Detailed analysis of the entities.
Prerequisite: Lower-level core, MGT 3300.

MGT 4478 **Managing in a Global Environment (3)**
This course is a survey and analysis of topics important to successfully managing multinational business operations. Included in the course are considerations of environmental analysis, modes of entry, planning and cross-cultural issues in directing, decision-making, organizing and staffing operations in multinational enterprises. Capstone for the Global Business Core.
Prerequisites: Lower-level Core, MGT 3300 and have completed at least 12 hours of the Global Business Core.

MGT 4479 **Management Seminar (3) (capstone)**
This course is a study of current management issues which examines the application of traditional management theory in the context of current management problems. This is the capstone course for the management majors.
Prerequisites: Lower-level Core MGT 3300, QM 3345, MGT 3380, MGT 4440, and MGT 4472.

MGT 4484 **Entrepreneurial Strategy and Marketing (3) *(capstone*)**
This entrepreneurship concentration capstone integrates theory and practice from prior courses in the discipline, applied to a selected venture, by focusing on a strategic analysis, emphasizing the marketing function. The larger aim is to guide venture growth rationally, creatively, and ethically through the challenges associated with the successive stages of professionalization, maturation, and global presence. The course considers ventures internal and external to existing organizations.
Prerequisite: ECO 3360, FIN 3360, MGT 4475. (Simultaneous enrollment is acceptable)

MGT 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.
Note: This course may not be substituted for any required course.

MGT 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research. *Note: This course may not be substituted for any required course*.

MGT 4496 **Selected Topics in HR (3)**
An in-depth study of a broad range of human resource management topics. Individual investigations and reporting are emphasized in seminar fashion. Focus on a topic of a timely nature and/or special interest.
Prerequisite: Lower-level Core, MGT 3300.

MGT 4499 **Internship (3)**
The Management Internship provides is a supervised work experience that provides students with the opportunity to gain applied work e experience their field of study. Students are interviewed and selected by the individual companies offering the internship. This course may be repeatable and must comply with the SCOB internship policy.

MARKETING COURSES (MKT)

MKT 3300 **Principles of Marketing (3)**
This course examines principles and practices for creating, delivering, capturing, and communicating

value to customers. Topics focus on the marketing function of an organization; environmental factors influencing marketing decisions; and, the development of marketing strategies to deliver long -term customer value.

MKT 3362 Promotion Management (3)
This course examines the concepts and techniques associated with developing an effective marketing communications strategy. Topics focus on the planning, creation, utilization, and placement of promotional programs designed to support marketing strategy.
Prerequisite: MKT 3300.

MKT 3364 Product and Service Innovation (3)
This course examines the role of marketing in innovation and its critical contribution to marketplace success. Topics focus on the principles used to identify marketing opportunities and the creative thinking needed to respond to them with new ideas, products and services.
Prerequisite: MKT 3300.

MKT 4461 Personal Selling (3)
This course examines personal selling as a professional marketing activity. It centers on fostering relationships by developing interpersonal communication skills, understanding buyer motivations, and adding value to clients through long-term relationships. Topics focus on the economic, psychological, and social aspects of personal selling; direct selling techniques, and the sales process with an emphasis on building customer relationships.
Prerequisite: MKT 3300.

MKT 4462 Consumer Behavior (3)
This course examines the consumer as a decision maker. Topics focus on the internal and external influences underlying purchase decisions and their implications for marketing strategy. Primary emphasis is on final consumers with a secondary emphasis on organizational buyers.
Prerequisite: MKT 3300.

MKT 4463 Retailing (3)
This course examines the principles and practices of retail management. Topics focus on retail format; store location and layout; merchandise planning; inventory management; atmospherics; and customer service.
Prerequisite: MKT 3300.

MKT 4464 Marketing Research (3)
This course examines the foundational role of research to the formulation of sound strategic marketing decisions. Topics focus on problem definition, research design, data acquisition, analysis, and interpretation. The systematic approach of harnessing data/information to drive effective marketing decision-making is also considered.
Prerequisite: MKT 3300.

MKT 4465 Supply Chain Management (3)
This course examines the key concepts and principles associated with the flow of materials and information from suppliers to customers for both manufacturing and service firms. Topics focus on the procurement, operations, transportation, and integration activities associated with a firm's distribution system.
Prerequisite: MKT 3300.

MKT 4468 Global Marketing (3)
This course examines the impact the global environment has on marketing strategy. Topics focus on the cultural, political, legal, and economic differences among nations as they affect marketing opportunities and operations.
Prerequisites: Lower-level Core, MKT 3300.

MKT 4469 Marketing Management (3)
This course is the "capstone" marketing course. It examines the managerial aspects of marketing which involve the integration of marketing research, customer analysis and marketing strategy to provide long-term value to customers. Topics focus on the application of marketing concepts, procedures, and practices to solve marketing problems and develop strategic marketing plans.
Prerequisite: 15 semester hours in marketing courses beyond MKT 3300.

MKT 4480 Special Topics in Marketing (1-3)
This course examines a selected marketing topic of interest that is not covered in other course offerings. The topic for the semester will be indicated in advance. Students may repeat the course for credit so long as the selected topics are different. Maximum credit of six hours.
Note: This course may not be substituted for any required course.
Prerequisite: MKT 3300

MKT 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
This course involves directed research on marketing topics of mutual interest to a student and faculty member. Maximum credit of six hours.
Note: This course may not be substituted for any required course.
Prerequisite: MKT 3300.

MKT 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
This course involves directed project work of mutual interest to a student and faculty member. Maximum credit of six hours. *Note: This course may not be substituted for any required course.*
Prerequisite: MKT 3300

MKT 4499 Marketing Internship (3)
This course involves the practical application of marketing principles and theories in an actual business setting. Students gain practical, professional experience in conjunction with academic development under the supervision of both a faculty member and a manager within an organization.
Note: This course may not be substituted for any required course.
Prerequisites: Six semester hours in marketing courses beyond MKT 3300 and permission of instructor.

MEDICAL COURSES (MLS)

(Offered in hospital internship only)

MLS 4400 Clinical Urinalysis (1)
The imparting of skills for performing and interpreting routine urinalyses as well as special urinalysis procedures.

MLS 4401 Clinical Urinalysis Lab (1)
This lab section includes specimen handling procedure manual, audio-visual, quality control, record keeping, and reporting system.

MLS 4402 Clinical Microbiology (4)
This lecture course covers areas of bacteriology, mycology, and virology.

MLS 4403 **Clinical Microbiology Lab (2)**
This lab teaches identification methods, isolation methods, and current clinical techniques for working with bacteria, molds, viral, and rickettsia organisms.

MLS 4404 **Clinical Parasitology (1)**
Discussions concerning proper collection and handling of specimens for detection of parasites, techniques used to detect parasites and morphological features, and life cycles of important organisms.

MLS 4405 **Clinical Parasitology Lab (1)**
Use of the laboratory procedures and techniques for isolation and identification of parasitic organisms.

MLS 4406 **Clinical Hematology (4)**
Detailed studies of blood, including cell types, functions, number of cells, clotting mechanisms, coagulation disorders, platelet disorders, and other pertinent topics.

MLS 4407 **Clinical Hematology Lab (2)**
Special studies and training involving cell counts, hemoglobin and hematocrit determinations, and other special hematology procedures.

MLS 4408 **Immunohematology (3)**
This block involves blood banking, studies of the ABO blood group system, the Rh system, blood typing, antibody studies, and effects of transfusion.

MLS 4409 **Immunohematology Lab (1)**
Blood banking studies and techniques. Clinical applications of procedures under direct supervision.

MLS 4410 **Clinical Serology (2)**
Lectures emphasizing the principles and interpretations of immunological procedures. The study of the immune systems of the body. Antigen-antibody studies and techniques.

MLS 4411 **Clinical Serology Lab (1)**
In this lab, the student becomes proficient in running and interpreting serology (immunology) tests.

MLS 4412 **Clinical Chemistry (6)**
This lecture course focuses on the principles and interpretations of biochemical analytical methods, clinical calculations, and quality control.

MLS 4413 **Clinical Chemistry Lab (4)**
This lab rotation provides the practical experience of running biochemical tests and interpreting their results. Some prior experience with instrumentation is required in order to understand how to use and care for clinical instruments.

MILITARY SCIENCE AND LEADERSHIP COURSES (MSL)

MSL 1101 **Foundations of Officership (1)**
This course features an introduction to life in the U.S. Army. Topics include leadership, the unique duties and responsibilities of officers, the organization and role of the Army, basic life skills pertaining to fitness and communication, and an analysis of Army values and expected ethical behavior.
Co-requisite: MS 1104.

MSL 1102 **Basic Leadership (1)**
This course provides students with a basic knowledge of common military skills and presents the fundamental leadership concepts and doctrine of the U.S. Army. Topics include the practice of basic skills that underlie effective problem solving, application of active listening and feedback skills, examination of factors that influence leader and group effectiveness, and an examination of the officer experience.
Co-requisite: MS 1105.

MSL 1104 **Military Basic Leadership Lab I-A (1)**
Leadership lab is required for Army ROTC students. The student will receive training in drill and ceremonies, field craft, individual movement techniques, squad tactics, map reading and land navigation, first aid, and use and maintenance of the M16 Rifle.

MSL 1105 **Military Basic Leadership Lab I-B (1)**
Leadership lab is required for Army ROTC students. The student will receive training in drill and ceremonies, field craft, individual movement techniques, squad tactics, map reading and land navigation, first aid, and use and maintenance of the M16 Rifle.

MSL 2201 **Individual Leadership Studies (2)**
This course develops the knowledge of self, self-confidence and individual leadership skills as well as develops problem solving and critical thinking skills and the application of communication, feedback, and conflict resolution. Emphasized areas include personal development, goal setting, communication, problem solving and decision-making, leadership, teamwork, the group.
Co-requisite: MS 2204.

MSL 2202 **Leadership and Teamwork (2)**
This course focuses on self-development guided by knowledge of self and group processes by focusing on challenging current beliefs, knowledge and skills.
Co-requisite: MSL 2205.

MSL 2204 **Military Basic Leadership Lab II-A (1)**
Leadership lab is required for Army ROTC students. The students will receive training in drill, physical training, rappelling, water survival, tactics, marksmanship, night operations, and land navigation.

MSL 2205 **Military Basic Leadership Lab II-B (1)**
Leadership lab is required for Army ROTC students. The students will receive training in drill, physical training, rappelling, water survival, tactics, marksmanship, night operations, and land navigation.

MSL 3301 **Leadership and Problem Solving (3)**
This course examines the basic skills that underlie effective problem solving by analyzing the role officers played in the transition of the Army from Vietnam to the 21st Century, analysis of military missions and the planning of military operations, the features and execution of the Leadership Development Program, and the execution of squad battle drills.
Prerequisite: Permission of the Professor of Military Science for non-contracted cadets.
Co-requisite: MSL 3304.

MSL 3302 **Leadership and Ethics (3)**
This course probes leader responsibilities that foster an ethical command climate by developing cadet leadership competencies and applying principles and techniques of effective written and oral communication. Students are prepared for success at the ROTC National Advanced Leadership Course.
Prerequisite: Permission of the Professor of Military Science for non-contracted cadets.
Co-requisite: MSL 3305.

MSL 3304 **Military Advanced Leadership Lab III-A (1)**
Leadership Lab is required for all Army ROTC students. The student will receive training in troop-leading procedures, mission planning, squad tactics, land navigation, individual movement techniques, water survival and rappelling.

MSL 3305 **Military Advanced Leadership Lab III-B (1)**
Leadership Lab is required for all Army ROTC students. The student will receive training in troop-leading procedures, mission planning, squad tactics, land navigation, individual movement techniques, water survival and rappelling.

MSL 4401 **Leadership and Management (3)**
This course builds on the experience gained at the National Advanced Leadership Course in order to solve organizational and staff problems a discusses staff organization and functions, analysis of counseling responsibilities and methods, the principles of subordinate motivation and organizational change. Students will apply leadership and problem solving principles to a case study and or simulation.
Prerequisite: Permission of the Professor of Military Science for non-contracted cadets.
Co-requisite: MSL 4404.

MSL 4402 **Officership (3)**
This course is designed to explore topics relevant to Second Lieutenants entering the U.S. Army and focuses on the legal aspects of decision making leadership, analyzing Army organization from the tactical to the strategic level, assessing administrative and logistical functions performance of platoon leader actions, and an examination of leader responsibilities that foster an ethical command climate.
Prerequisite: Permission of the Professor of Military Science for non-contracted cadets.
Co-requisite: MSL 4405.

MSL 4404 **Military Advanced Leadership Lab IV-A (1)**
Leadership lab is required for all Army ROTC students. The student will receive training in troop-leading procedures, mission planning, squad tactics, land navigation, individual movement techniques, water survival and rappelling.

MSL 4405 **Military Advanced Leadership Lab IV-B (1)**
Leadership lab is required for all Army ROTC students. The student will receive training in troop-leading procedures, mission planning, squad tactics, land navigation, individual movement techniques, water survival and rappelling.

MSL 4497 **Senior Seminar in Military Science (1-3)**
This is a capstone course for Senior Army ROTC Contracted Cadets designed to: 1.) help senior cadets integrate the knowledge gained from their other required Military Science Leadership courses; and 2.) assist them in developing analytical thinking skills through practical use of these skills in simulated leadership roles among their peers using a seminar approach.
Note: This MSL 4497 Senior Seminar in Military Science course is repeatable up to 3 times and receive 1 credit hour per course per semester. This course may not be substituted for any other required Military Science courses.
Prerequisite: Completion of all other advanced level Military Science Leadership courses in the Military Science Leadership minor or Army ROTC program and will require permission of the Professor of Military Science to enroll.

MATH COURSES (MTH)

MTH 0096 **Pre-Algebra (3)**
Developmental / remedial instruction including operations with whole numbers, decimals, and fractions. Ratio, percent and equation solving will be emphasized.
Note: This course is for institutional credit only and will not be used in meeting degree requirements. This course will not substitute for any general studies requirement.

MTH 1100 **Fundamentals of Algebra (3)**
Developmental / remedial instruction including integer and rational arithmetic, linear equations, inequalities, integer exponents, polynomials and factoring, rational expression.
Prerequisite: Placement or a grade of C or better in MTH 0096. Note: This course is for institutional credit only and will not be used in meeting degree requirements. This course will not substitute for any general studies requirement.

MTH 1105 **Intermediate Algebra (3)**
Developmental / remedial instruction including real and complex numbers; polynomials and factoring; rational exponents; roots and radicals; linear equations and inequalities; quadratic equations; and graphing.
Prerequisite: placement or a grade of C or better in MTH 1100. Note: This course is for institutional credit only and will not be used in meeting degree requirements. This course will not substitute for any general studies requirement.

MTH 1110 **Finite Mathematics (3)**
Topics include a survey of logic, sets, counting, permutations, combinations, basic probability, an introduction to statistics, and matrices and their applications to Markov chains and decision theory.
Prerequisite: appropriate score on mathematics placement test, advanced placement, or a grade of C or better in MTH 1105. Note: Credit will not count toward a major or minor in mathematics.

MTH 1112 **Pre-Calculus Algebra (3)**
Topics include the algebra of functions, including polynomial, rational, exponential, and logarithmic functions. The course also contains systems of equations and inequalities, linear and quadratic equations and inequalities, graphs of polynomials, and the binomial theorem.
Prerequisite: appropriate score on mathematics placement test, advanced placement, or a grade of C or better in MTH 1105. Note: Credit will not count toward a major or minor in mathematics.

MTH 1114 **Pre-Calculus Trigonometry (3)**
This course covers trigonometric functions including definitions, identities, and trigonometric equations, applications as well as properties and graphs of trigonometric functions and their inverses. Also included are the law of sines, the law of cosines, polar coordinates, vectors, and conic sections.
Prerequisite: MTH 1112 with a grade of C or better or advanced placement. Note: Credit will not count toward a major or minor in mathematics.

MTH 1125 **Calculus I (4)**
Topics include limits of functions, derivatives of algebraic, trigonometric, exponential and logarithmic functions and their inverses and the definite integral and its application to area problems. Applications of the derivative including maximum and minimum problems, and curve sketching using calculus.
Prerequisite: A grade of C or better in MTH 1114 or advanced placement.

MTH 1126 **Calculus II (4)**
Applications of integration (such as volume, arc length, work, and average value), techniques of integration, indeterminate forms, infinite series, polar coordinates, and parametric equations.
Prerequisite: MTH 1125.

MTH 2201 **Calculus and its Applications (3)**
An introduction to the basic ideas and techniques of differential and integral calculus, especially as they relate to problems involving maximum and minimum values of functions and marginal analysis.

Prerequisite: MTH 1112 or 1114 with a grade of C or better, or advanced placement. Note: Credit will not count toward a major or minor in mathematics.

MTH 2210 Introductory Statistics (3)
A beginning course in statistics intended for students in a wide variety of fields of study. Course topics include descriptive statistics, normal distribution, correlation and regression, basic concepts of probability, binomial distribution, sampling distribution, confidence intervals and hypothesis testing for mean(s) and proportion(s). Students also have the opportunity to analyze data sets using Statistics software.
Prerequisite: A grade of C or better in MTH 1112. Note: Credit will not count toward Area III requirements nor will it count toward any major or minor in mathematics.

MTH 2215 Applied Discrete Mathematics (3)
Discrete mathematics with a computer science orientation is presented. Topics include sets, relations, logic, algorithms, and recursion.
Prerequisite: A grade of C or better in MTH 1112. Note: Credit will not count toward Area III requirements nor will it count toward any major or minor in mathematics.

MTH 2220 Computer Programming for Mathematics (3)
Structured programming of a mathematical nature, arithmetic computations, algorithm design and control structures, functions and subroutines intrinsic functions, array processing.
Prerequisite: MTH 1125.

MTH 2227 Calculus III (4)
Topics include vector functions, multi-variable functions, partial derivatives and their applications, quadric surfaces, multiple integrals, and vector calculus, including Green's theorem, curl, divergence, surface integrals, and Stoke's theorem.
Prerequisite: MTH 1126.

MTH 2251 Mathematical Concepts for K-6 Teachers I (3)
An examination of some of the major topics encountered in the teaching of elementary mathematics with emphasis on number theory order of operations, definitions of and operations with rational and irrational numbers, estimation, definitions and algorithms of the four operations, numeration systems, bases other than 10, and problem solving.
Prerequisite: MTH 1110 or 1112. Note: Credit will not count toward Area III requirements nor will it count toward any major or minor in mathematics.

MTH 2252 Mathematical Concepts for K-6 Teachers II (3)
An examination of some of the major topics encountered in the teaching of elementary school geometry with emphasis on measurement, area, volume, congruence, polygons, circles, constructions, motion geometry, polyhedra, and similarity.
Prerequisite: MTH 1110 or 1112. Note: Credit will not count toward Area III requirements nor will it count toward any major or minor in mathematics.

MTH 3300 Selected Topics (3)
Examination of a designated topic of special and/or current interest and importance, which is generally not covered in regularly offered courses in the mathematics curriculum.

MTH 3311 Differential Equations (3)
An introduction to ordinary differential equations. Topics include first order methods, linear equations, the Laplace transforms, systems of equations, and applications.
Prerequisite: MTH 2227.

MTH 3318 Introduction to Advanced Mathematics (3)
Topics include set theory, equivalence relations and partitions, logic, number systems, functions, and proof writing techniques.
Prerequisite: MTH 1126.

MTH 3325 College Geometry (3)
Axiomatic systems; incidence and separation properties of planes and space; metric and synthetic approaches; geometric inequalities; parallel postulate; area-theory; circles in a plane; models for hyperbolic and elliptic geometries; and constructions with a straightedge and compass.
Prerequisite: MTH 3318.

MTH 3331 Linear Algebra (3)
Matrices, systems of equations, determinants, eigenvalues and eigenvectors.
Prerequisite: MTH 1126.

MTH 3350 Statistical Methods and Computations (3)
This course is designed to provide students with a foundation in statistical methods, including data exploring and strategies in sample surveys, estimation and testing hypotheses of means and variances, analysis of variance, regression analysis, contingency tables. These concepts are taught with heavy emphasis on statistical computing software and real world datasets. Students will learn basic skills of SAS, a statistical software package that is widely used in business, industry, government, and research.
Prerequisite: MTH 2210.

MTH 3355 Survey Sampling (3)
Topics include sampling frames, questionnaire design, simple random, systematic, stratified, and cluster sampling, comparing domain means, contingency table analysis.
Prerequisite: MTH 2210.

MTH 3364 Vector Calculus (3)
Differentiation in several variables. Line and surface integrals. Potential theory and differential
Prerequisite: MTH 2227.

MTH 4412 Discrete Mathematics (3)
Topics can include counting techniques such as Pigeonhole Principle, permutations, combinations, binomial coefficients, inclusion-exclusion, and relations and graphs.
Prerequisites: MTH 2227 and 3318.

MTH 4420 Graph Theory (3)
The elements of graph theory including: trees; bipartite, chordal and planar graphs; graph coloring; graph traversals; and flows.
Prerequisites: MTH 2227 and 3318 or permission of instructor.

MTH 4422 Numerical Analysis (3)
Topics include finite differences, interpolation, numerical integration and differentiation, solutions of equations of one variable, linear systems, and numerical solutions of ordinary differentia equations.
Prerequisites: MTH 2220, 2227 and 3331, or permission of instructor.

MTH 4424 Real Analysis I (3)
The real number system, completeness, limits, continuity, sequences, differentiation, and the Riemann integral.
Prerequisites: MTH 2227 and 3318.

MTH 4425 Real Analysis II (3)
Sequences and series of functions, series, and a continuation of the integral to include the Fundamental Theorem of Calculus.
Prerequisite: MTH 4424.

MTH 4426 Complex Analysis (3)
Complex numbers, elementary functions and their mappings, complex limits and power
Cauchy integral formula.

Prerequisites: MTH 2227 and 3318 or permission of instructor.

MTH 4436 Number Theory (3)
Divisibility, congruencies, prime numbers, Fermat's theorem, Diophantine equations, number theoretic functions.
Prerequisites: MTH 2227, 3318.

MTH 4441 Abstract Algebra I (3)
Properties of the integers, modular arithmetic. Elementary theory of groups, finite groups, subgroups, cyclic groups, permutation groups. Group isomorphisms and homomorphisms.
Prerequisites: MTH 2227, 3318, and 3331.

MTH 4442 Abstract Algebra II (3)
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.

MTH 4451 Mathematical Statistics I (3)
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.
Prerequisite: MTH 1125 and MTH 2210.

MTH 4452 Mathematical Statistics II (3)
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.

MTH 4456 Mathematics of Finance (3)
The fundamental concepts of financial mathematics and how these concepts are applied in calculating present and accumulated values for various streams of cash flows as a basis for future use in the following: reserving, valuation, pricing, asset/liability management, investment income, capital budgeting, and valuing contingent flows.
Prerequisite: MTH 4451.

MTH 4459 Regression Analysis (3)
Topics include simple linear regression, inferences in regression analysis, techniques of multiple regression and model building, ANOVA as regression analysis, analysis of covariance, model selection and diagnostic checking techniques, nonlinear regression, and logistic regression. Computations are an integral part of the course and will involve the use of SAS and R statistical software.
Prerequisite: MTH 4451.

MTH 4460 Topology (3)
An introduction to metric and topological spaces and associated topics, separation axioms, compactness, and connectedness.
Prerequisites: MTH 2227, 3318.

MTH 4464 Multivariate Analysis (3)
Possible topics to be covered include multivariate descriptive statistics, multivariate normal distribution, analysis of covariance, MANOVA, multivariate regression, principal components, discriminant analysis, cluster analysis, factor analysis.
Some familiarity with R and SAS is expected.
Prerequisite: MTH 4451, and MTH 3350.

MTH 4465 Categorical Data Analysis (3)
In recent years, the use of specialized statistical methods for categorical data has increased dramatically, particularly for applications in the biomedical and social sciences. The course gives an introduction to analyzing categorical data. Principal topics include: contingency tables, generalized Linear Models, log-linear models, logistic regression, and models for matched pairs. Two statistical software packages SAS and R will be used appropriately throughout the course.
Prerequisite: MTH 4451.

MTH 4466 Data Mining (3)
Data Mining is a fast growing interdisciplinary field between Statistics and Computer Science due to the emergence of massive dataset. This course covers an information extraction activity whose goal is to discover hidden facts from large data warehouses. A number of data mining tasks including description, classification, selection, estimation, prediction, and affinity grouping and clustering will be discussed. Also, students will learn how to use data mining software to perform data mining functionalities.
Prerequisite MTH 4459.

MTH 4467 Experimental Design (3)
Fundamental principles of designing and analyzing experiments with application are considered. The concepts of experimental unit, randomization, blocking, replication, error reduction and treatment structure are introduced. The design and analysis of completely randomized, randomized complete block, incomplete block, Latin square, split-plot, repeated measures, factorial and fractional designs will be covered.
Prerequisite: MTH 4451.

MTH 4474 Internship in Mathematics Education (9)
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454.

MTH 4481 Methods and Materials for the Secondary Teacher (3)
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of mathematics materials for grades 6-12 will be covered in detail. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

MTH 4490 Senior Seminar (1 to 3 credit hours)
Individualized study of a topic in mathematics culminating in a written and oral presentation.
Prerequisites: MTH 3318 and senior status.

MTH 4491-92 Guided Independent Research (1 to 3 credit hours)
Additional information is indexed under Independent Study and Research.

MTH 4493-94 Guided Independent Study (1 to 3 credit hours)
Additional information is indexed under Independent Study and Research.

MUSIC INDUSTRY COURSES (MUI)

MUI 1101 **American Popular Music Ensemble (1)**
An examination and application of music and music performance focused in the American popular music genres. Students will experience and perform popular music styles/genres including rock, R&B, mainstream pop, country, and hip hop among others. In addition, students will experience studio production process and procedure in the recording of music tracks for release through a record label.
Prerequisite: By audition.

MUI 2201 **Improvisation (1)**
An introduction to basic improvisation through guided performance practices. Chord symbols and terminology will be used to describe various chords and scales. The "musical vocabulary" presented in this course is designed to provide a strong foundation that can be applied to multiple styles of American popular music. Students who complete the course will have the necessary tools to improvise at a basic harmonic level.
Prerequisite: MUS 1103.

MUI 2230 **Survey of Music Industry (3)**
An introduction to practices and inter-relationships of the music industry, such as retail, recording, distribution, legal aspects, publishing media and employment.

MUI 3305 **Music Technologies (3)**
Study of the computer-based applications as currently used in the music industry for audio production including MIDI sequencing, multi-track recording, audio editing and music notation.
Prerequisite: MUI 2230.

MUI 3310 **Audio Principles and Techniques I (3)**
A basic course to develop the understanding and skills to produce audio recordings. Listening skills will be emphasized along with editing, recording, and basic sound design for film/video.
Prerequisite: MUI 2230, MUI 3305.

MUI 3315 **Song Writing (2)**
Study of basic skills and techniques of songwriting including lyric writing, melodic construction, and harmonic progression.
Prerequisites: MUI 2230, MUI 3305, MUS 1103.

MUI 3325 **Recording Studio I (2)**
An examination of the art of studio recording. The mixing console, microphones, signal processing, and digital recording systems will be studied and experienced.
Prerequisite: MUI 3360.

MUI 3326 **Recording Studio II (2)**
In-depth study of audio recording in the studio environment. Remote and studio recording techniques, studio process/protocol, and post production will be studied and experienced. Students will prepare a recording project portfolio.
Prerequisite: MUI 3325.

MUI 3340 **Live Sound Reinforcement (2)**
An overview of contemporary live sound reinforcement techniques. Students will experience various aspects of working in the live sound environment including: audio component types, venue/acoustical considerations, signal processing/ application, specific technical considerations, microphone techniques, mixing techniques, and sound crew protocol.
Prerequisite: MUI 3360.

MUI 3345 **Audio for Producers (2)**
An overview of audio production in the recording studio environment, including industry-standard process and procedures. In addition, the roles of the producer, engineer, and musician are explored through a series of recording sessions while working in digital audio environments. A final recording project will be completed as a part of the student's portfolio.
Prerequisite: MUI 3310.

MUI 3346 **Studio Repair & Maintenance (2)**
Course includes basic electric instrument adjustment, maintenance, and repair, common industry standards and guidelines, practical evaluation, and hands-on adjustment and repair.
Prerequisite: MUI 3326, MUI 3340.

MUI 3360 **Audio Principles and Techniques II (2)**
This course is an in-depth examination of audio recording. The curriculum will cover remote and studio recording techniques. The related areas of sound reinforcement and post-production will be covered at length. Students will apply advanced microphone techniques, utilize digital editing and plug-ins, and prepare a recording project portfolio.
Prerequisite: MUI 3310.

MUI 4410 **Arts Management/Concert Production(2)**
A study of artist management and concert production including show development, venue management, marketing, booking and touring. A music concert production will be developed, staged and presented in a variety of performance environments.
Prerequisite: MUI 2230, MUI 3305.

MUI 4420 **Film Scoring (2)**
Examination of the process and preparation of digital music for film, digital video and animation.
Prerequisite: MUI 3310.

MUI 4430 **Marketing of Recorded Music (2)**
An in-depth study of the process of studio production, manufacturing, promotion, marketing and distribution of contemporary recordings.
Prerequisites: MUI 2230, MUI 3305.

MUI 4435 **Music Merchandising (2)**
Examination of the production, marketing, merchandising and distribution of musical products in the current music marketplace.
Prerequisites: MUI 2230, MUI 3305.

MUI 4448 **Audio Mixing and Mastering (2)**
An exploration and application of audio mixing and mastering techniques used in contemporary audio production.
Prerequisite: MUI 3325.

MUI 4460 **Senior Practicum (3)**
Career preparation in student's area of emphasis including a culmination project/presentation, internship placement, and portfolio development.
Prerequisite: approval of adviser/ coordinator.

MUI 4480 **Seminar in Music Industry (3)**
An advanced course focused on the development of the professional skills portfolio. The student will develop a project to be added to their portfolio upon completion.
Prerequisite: MUI 4460.

MUI 4499 **Music Industry Internship (9)**
Students will be assigned an internship position in the music industry. The intern will be supervised by a music industry faculty member.
Prerequisite: MUS 4460.

MUSIC COURSES (MUS)

MUS 1102 **Music Theory I (3)**
Study of music fundamentals including rhythm and meter, note names, intervals, major and minor scales, key signatures, triads, seventh chords, cadences, introduction to Roman Numeral and Macro analysis, non-chord tones and suspensions, and beginning part-writing.
Co-requisites for music majors: MUS 1105, 1107.

MUS 1103 **Music Theory II (3)**
Study of diatonic and chromatic harmony including secondary dominant functioning chords, borrowed chords, Neapolitan chord, and augmented sixth chords, modulation, advanced part-writing, and intermediate-level harmonic analysis.
Prerequisite: MUS 1102.
Co-requisites for music majors: MUS 1106, 1108.

MUS 1105 **Class Piano I (1)**
Introduction to basic keyboard musicianship and music reading skills. Focuses on beginning improvisation techniques, harmonization and beginning chorale playing.

MUS 1106 **Class Piano II (1)**
Development of intermediate-level keyboard skills including improvisational techniques, chorale playing, sight reading and transposition.
Prerequisite: MUS 1105.

MUS 1107 **Aural Skills I (1)**
Beginning sight-singing and rhythmic reading, melodic, harmonic and rhythmic dictation, and interval and chord quality identification.

MUS 1108 **Aural Skills II (1)**
Intermediate-level sight-singing and rhythmic reading, melodic, harmonic and rhythmic dictation, and interval and chord quality identification.
Prerequisite: MUS 1107.

MUS 1110-4429 **Private Instruction (1 credit hour per semester, 1 lesson per week)**

1110/2210/3310/4410	Violin
1111/2211/3311/4411	Viola
1112/2212/3312/4412	Cello
1113/2213/3313/4413	String Bass
1114/2214/3314/4414	Piano
1115/2215/3315/4415	Organ
1116/2216/3316/4416	Voice
1117/2217/3317/4417	Clarinet
1118/2218/3318/4418	Oboe
1119/2219/3319/4419	Flute
1120/2220/3320/4420	Bassoon
1121/2221/3321/4421	Saxophone
1122/2222/3322/4422	Trumpet
1123/2223/3323/4423	Horn
1124/2224/3324/4424	Trombone
1125/2225/3325/4425	Euphonium
1126/2226/3326/4426	Tuba
1127/2227/3327/4427	Percussion
1128/2228/3328/4428	Guitar
1129/2229/3329/4429	Composition

1000-level courses are for non-majors and music majors studying secondary instruments. Music majors will study two semesters each at the 2000, 3000, and 4000 levels. Approval for advancement will be given at jury examinations by faculty in each area (keyboard, voice, brass, woodwinds, percussion).

MUS 1131 **Music Appreciation (3)**
Orientation, vocal and instrumental media, forms, historical development and guided listening.
Credit for this course does not apply toward any program in music.

MUS 1140 **World Music Workshop (2)**
A hands-on course that surveys traditional music from around the globe, with an emphasis on exploratory play.

MUS 1145 **Folk Music of the Americas (1)**
An ensemble that plays traditional music from many regions throughout the Americas. The group performs old time songs and folk tunes from the United States, as well as indigenous songs, folk songs and tunes from Central and South America, and syncretic music, exploring a broad variety of American cultural traditions.

MUS 1146 **Chinese Folk Ensemble (1)**
A traditional music group dedicated to promoting cultural exchange through playing a variety of traditional Chinese instruments and melodies from various regions around the country.

MUS 1147 **Celtic Ensemble (1)**
A traditional music group that performs tunes and songs of Irish, Scottish, Welsh, Galician, Breton, and Scandinavian origins. It has a varied instrumentation and an emphasis on learning melodies aurally.

MUS 1149 **Sangeet Ensemble (1)**
The ensemble will explore traditional and classical musics from the rich variety of cultures throughout India and the surrounding regions of Nepal, Pakistan, and Bangladesh through learning songs, melodies, rhythms and lore.

MUS 1150 **Guitar Ensemble (1)**
This course is designed to increase student knowledge of guitar ensemble and chamber music repertoire through performance, listening and concert attendance.

MUS 1155 **Opera Workshop (1)**
This course is a performance workshop, uniquely tailored to showcase enrolled students. Students will be assigned a scene or a role, be expected to learn music independently, coach music and presentation during class hours and perform on designated concert date(s). This course is open to all students interested in classical singing and performance. Students will audition for roles and be coached with positive reinforcement to be part of a successful performing ensemble representing the School of Music.

MUS 1181 **Band (1) Fall; (1) Spring**
Marching Band (fall) and concert band (spring). Open to all students by permission of director.

MUS 1183 **Collegiate Singers (1-3)**
Choral group devoted to performance of choral masterworks. *Note: open to all students with permission of instructor.*

MUS 2202 **Music Theory III (3)**
Study and analysis of structures and procedures of the Common Practice period, beginning with phrase and period structures and continuing through binary, ternary, sonata-allegro, sonata-rondo, fugue, variation, and through-composed forms.
Prerequisite: MUS 1103.
Co-requisite for music majors: MUS 2207.

MUS 2203 **Music Theory IV (3)**
Study and analysis of music from the Late Romantic period through 21st Century compositional and analytical practices.
Prerequisite: MUS 2202.

MUS 2207 **Aural Skills III (1)**
Advanced sight-singing and rhythmic reading, melodic, harmonic and rhythmic dictation including chromatic harmonies, and interval and chord quality identification.
Prerequisite: MUS 1108.

MUS 2235 **Listening to Jazz (3)**
An exploration of jazz in American culture.

MUS 2240 **World Music Cultures (3)**
A survey of diverse musical traditions from around the globe. Musical cultures are approached anthropologically, and each culture will be examined to understand how music is entwined with human experience.

MUS 2245 **Classic Vinyl: Rock and Roll Revisited (3)**
An exploration of Rock and Roll in American culture.

MUS 2250 **Survey of Western Music History I (3)**
This course traces the development of Western music from the ancient and medieval worlds through the Renaissance and baroque periods.

MUS 2251 **Survey of Western Music History II (3)**
This course traces the development of Western music from the 18th century through the classical, romantic and contemporary periods.

MUS 3305 **Music Technologies (3)**
Study of the applications of the microcomputer to music teaching and to the management, planning, and record-keeping tasks of the music educator.

MUS 3306 **Conducting (3)**
Basic conducting techniques for instrumental and choral groups. Includes score study, rehearsal techniques and interpretation of various styles.
Prerequisite: MUS 1103.

MUS 3335 **Choral Leadership (1)**
Intensive score study, performance practices, and conducting practice of standard repertoire.

MUS 3340 **Diction for Singers (1)**
Focuses on student understanding and application of singing of the English, Italian, Latin, German and French languages through use of the International Phonetic Alphabet and appropriate art song repertoire.
Prerequisites: ENG 1102, MUS 2216.

MUS 3341 **Vocal Pedagogy (1)**
A study of vocal teaching methods with an emphasis on application for private voice and choral teachers. This course also includes a review of vocal/choral pedagogical literature.
Prerequisite: MUS 2216.

MUS 3346 **Educational Psychology & Classroom Assessment in Fine Arts (3)**
This course provides a broad foundation in aspects of assessment and educational psychology.

MUS 3351 **Class Brass (1)**
Group instruction in techniques of playing and teaching brass instruments.

MUS 3352 **Class Woodwinds (1)**
Introduction to each of the principal woodwind instruments, emphasizing teaching techniques suitable for band classes.

MUS 3353 **Class Percussion (1)**
Group instruction in playing and teaching the principal pitched and non-pitched percussion instruments.

MUS 3354 **Class Strings (1)**
Group instruction in techniques of playing and teaching stringed instruments.

MUS 3356 **Class Voice (1)**
Introduction to the use of the singing voice for non-voice principals in music education.

MUS 3360 **Wind and Percussion Methods (1)**
Students will demonstrate theoretical, pedagogical and performance knowledge of/on selected wind/percussion instruments and awareness of instrument materials and rehearsal techniques, and will review the role of the instrumental music educator in music education.

MUS 3361 **Integrating Music into the Curriculum (3)**
Basic skills and methods of presentation and evaluation for music in grades P-6. Role-playing experiences are used to demonstrate appropriate materials, student involvement and motivational techniques.
Prerequisite: MUS 1131.

MUS 3365 **Class Composition (1)**
Creative musical writing, criticism, and study of compositional techniques.
Prerequisite: permission of instructor.

MUS 3380 **Travel Study in Music (1-3)**
Supervised study of music through travel abroad or within the United States. May be repeated for credit.
Prerequisite: permission of instructor.

MUS 3382 **Choral Techniques (3)**
Organizational and instructional strategies for teaching music through performance in choir. Includes a field component.
Prerequisite: MUS 1103 and junior standing.

MUS 3384 **Band Techniques (3)**
Organizational and instrumental strategies for teaching music through performance in band. Includes a field experience component.
Prerequisite: MUS 1103 and junior standing.

MUS 3385 **Symphony Band (1)**
Select concert organization for performance of advanced literature for band and wind ensemble.
Prerequisite: Audition.

MUS 3386 **Jazz Ensembles (1)**
Select ensemble for performance in a wide variety of jazz styles.
Prerequisite: Audition.

MUS 3387 **Concert Chorale (1)**
This mixed chamber choir performs challenging classical, traditional, and contemporary choral repertoire.
Prerequisite: Audition.

MUS 4400/01/02 **Selected Topics (1-3 per course)**
Detailed investigation of a specialized topic not covered in regularly offered courses, or an advanced section for intensive study.

MUS 4403 **Classroom Management for the Music Educator (3)**
The purpose of this course is to establish a foundation of content and application relative to classroom management for the music educator (P-12). Provides opportunities for analysis and application of behavioral management techniques in general music and performance-based pedagogical settings.

MUS 4430 **Flute Choir (1)**
This course is designed to increase student knowledge of flute choir repertoire through performance, listening, and discussion.

MUS 4431 **Trumpet Ensemble (1)**
Ensemble course open to all students.

MUS 4432 **Percussion Ensemble (1)**
Ensemble course open to all students.

MUS 4433 **Clarinet Choir (1)**
Ensemble course open to all students.

MUS 4435 **Campus Concert Band (1)**
Ensemble course open to all students.

MUS 4436 **Vocal Jazz Ensemble (1)**
This ensemble is designed to provide a quality performance experience for students of all majors and levels, utilizing excellent ensemble vocal jazz repertoire.
Prerequisite: Audition.

MUS 4440 **Marching Band Techniques (3)**
This course is designed to provide students with tools and techniques to successfully administer a high school marching band program, select and rehearse music, write and rehearse drill, and examine various marching techniques. Also included are intensive work with the Pyware Drill Design software and experiences with writing drill

and creating working frameworks for marching bands.

MUS 4460 Music for the Exceptional Learner (3)
Theoretical and practical exploration of the use of music to teach various populations of exceptional learners. Hands-on experience provided with exceptional populations and designing musical activities for each.
Prerequisite: sophomore standing.

MUS 4461 Orchestration and Arranging (2)
Ranges, transpositions and other characteristics of standard instruments and voices. Arranging/ composition projects.
Prerequisite: MUS 2202.

MUS 4470 Instrument Repair (2)
Course includes basic musical instrument adjustment, maintenance and repair, common industry standards and guidelines, practical evaluation and hands-on adjustment and repair.

MUS 4471 Music for ECE and Elementary School (3-4)
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.
Prerequisites: MUS 1103 and junior standing.

MUS 4472 Internship in Music Education (9)
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: IED 4454.

MUS 4481 Methods and Materials for the Secondary Music Teacher (3-4)
Teaching methods, selection, organization and use of music materials in grades 6-12. Observation and teaching experiences will be included.
Prerequisites: MUS 4471 and admission to TEP.

MUS 4491-92 Guided Independent Research (1 to 3 credit hours per course)
Additional information may be found under Independent Study and Research.

MUS 4493-94 Guided Independent Study (1 to 3 credit hours per course)
Additional information may be found under Independent Study and Research.

MUS 4499 Senior Recital (1)
Required for all music majors.
Prerequisite: Approval Jury.

NURSING COURSES (NSG)

(ASN Program)

NSG 1130 Basic Nursing Concepts (2)
Introduces the nursing process and the concept of evidence-based practice as a basis for making clinical nursing judgments. Incorporates theoretical knowledge from nursing, scientific, environmental and humanistic disciplines. Introduces the concepts of client needs, safety, communication, teaching/learning, critical thinking, ethical-legal, cultural diversity, nursing history, and the program's philosophy of nursing. Requires basic understanding of medical terminology. Focuses on the role of the professional nurse in providing care to diverse patient populations.
Prerequisites: Admission to the ASN Program, ENG 1101, MTH 1112 or MTH 1110
Prerequisites or Co-requisites: BIO 3348/L348, NSG 1135, NSG 1131, NSG 1151, NSG 2204

NSG 1131 Basic Nursing Concepts Practicum (2)
Introduces psychomotor nursing skills needed to assist individuals in meeting basic human needs. Skills necessary for maintaining microbial, physical, and psychological safety are introduced along with skills needed in therapeutic interventions. Focuses on the role of the professional nurse in applying basic nursing skills to diverse patient populations with common health alterations.
Prerequisites: admission to the ASN Program, ENG 1101, MTH 1112, PSY 2200, BIO 3347/ L347.
Prerequisites or Co-requisites: NSG 1130, NSG 1135, NSG 1151, NSG 2204.

NSG 1135 Health Assessment Practicum (1-2)
Focuses on applying knowledge and skills required to perform health assessments on diverse patient populations. Utilizes an evidence-based systemic approach to collect data in the assessment phase of the nursing process.
Prerequisites: Admission to the ASN Program, ENG 1101, BIO 3347/L347, MTH 1112.
Prerequisites or Co-requisites: BIO 3348/L348.

NSG 1140 Foundations of Adult Health Nursing (3)
Builds upon knowledge from previous nursing courses and other scientific disciplines to explore patient-centered care for adults with actual or potential health deviations. Focuses upon an evidence-based approach to the nursing process within a culture of quality and safety. Emphasizes the role of the professional nurse as educator, collaborator and change agent within the interprofessional health team.
Prerequisites: NSG 1131, 1135, 1151, 2213, BIO 3348/L348, PSY 2210, and TROY 1101.
Co– or Prerequisite: NSG 2202

NSG 1141 Foundations of Adult Health Nursing Practicum (3-6)
Utilizes an evidence-based approach in the application of the nursing process, emphasizing clinical decisions that are safe, ethical, patient-centered and collaborative, to assist a diverse population of adults with common health alterations.
Co-or Prerequisite: NSG 1140, NSG 2202.
Prerequisites: NSG 1131, 1135, 1151,2204 or 2213, BIO 3348/L348, PSY 2210, TROY 1101.

NSG 1151 Hospital Measurements (1)
An introduction to using mathematical computations in health-related situations. Focuses on mathematics computations as applied in selected healthcare settings. Different systems of measurement will be a priority. Includes an exam on computation of dosages and solutions, requiring completion with 85% accuracy.
Prerequisites: admission to the ASN Program, ENG 1101, MTH 1112, PSY 2200, BIO 3347/ L347.

NSG 2202 Pharmacology (2)
Focuses on specific classification of drugs, pharmacokinetics, pharmacodynamics, clinical usage, methods of administration, dosages, side effects, contraindications, reactions, and related nursing implications.
Prerequisites: NSG 1131, NSG 1135, NSG 1151.

NSG 2213 **Nutrition (2)**
An evidence-based study of macro and micronutrients as they impact health promotion and disease prevention of diverse individuals across the lifespan. Focus is placed on basic nutrition concepts as they relate to body systems, medical nutrition therapies, drug interactions, food safety, and nutrition assessment.

NSG 2255 **Maternal-Infant Nursing (2)**
Focuses on the nursing process and evidence-based practice as a basis for in in assisting the family during childbearing experiences. Applies theoretical knowledge from nursing, scientific, environmental and humanistic disciplines.
Prerequisites: NSG 1140, 1141, 2202, 2271, 2272. BIO 3372/L372.

NSG 2256 **Maternal-Infant Nursing Practicum (2-4)**
Focuses on the role of the professional nurse in providing high quality nursing care to childbearing individuals and families. Utilizes antepartal, intrapartal, postpartal, and neonatal experiences.
Pre or Co-requisite: NSG 2255.
Prerequisites: NSG 1140, 1141, 2202, 2271, 2272, BIO 3372/L372.

NSG 2265 **Nursing of Children (2)**
Focuses on the use of the nursing process and evidence-based practice as a basis for assisting the family during childrearing experiences. Applies theoretical knowledge from nursing, scientific, environmental and humanistic disciplines.
Prerequisites: NSG 1140, 1141, 2202, 2271, 2272. BIO 3372/L372.

NSG 2266 **Nursing of Children Practicum (2-4)**
Focuses on the role of the professional nurse in providing high quality nursing care to children and their families. Concepts of growth and development are applied in the care of children with altered health states including multiple disabilities.
Pre or Co-requisite: NSG 2265.
Prerequisites: NSG 1140, 1141, 2202, 2271, 2272, BIO 3372/L372.

NSG 2271 **Psychosocial Nursing Concepts (2)**
Focuses on the role of the professional nurse utilizing evidence-based practice to promote the adaptation of diverse individuals and families experiencing bio-psychosocial stressors.
Prerequisites: NSG 1131, 1135, 1151, 2204, or 2213. BIO 3348/L348, PSY 2210, TROY 1101.

NSG 2272 **Psychosocial Nursing Practicum (2-4)**
Focuses on the role of the professional nurse in the application of evidence-based nursing process in the care of diverse individuals and families experiencing bio-psychosocial stressors.
Pre or Co-requisite: 2271.
Prerequisites: NSG 1131, 1135, 1151, 2204, or 2213, BIO 3348/L348, PSY 2210, TROY 1101.

NSG 2280 **Advanced Nursing Concepts (4)**
Provides advanced knowledge for care of individuals and families in complex or life threatening situations. Focuses on the leadership role of the professional nurse using evidence-based practice while providing safe, high-quality, holistic, patient-centered care for diverse patient populations in complex or life-threatening situations.
Prerequisites: NSG 2202, 2255, 2256, 2265, 2266, 2282, 2283.

NSG 2281 **Advanced Nursing Practicum (6-12)**
Provides opportunity to demonstrate the role of professional nursing using judgment in practice, substantiated by evidence to assess and provide high quality care for individuals and families with complex multi-system stressors. Emphasizes health promotion, prevention, education and evidenced-based intervention in complex and life-threatening situations. Facilitates transition into the professional nursing role by examining legal, ethical, political, economic, and socio-cultural issues in nursing. Provides opportunity to apply leadership knowledge, refine nursing skills and develop greater understanding in a selected clinical area under the guidance of an approved professional nurse.
Pre or Co requisite: NSG 2280.
Prerequisites: NSG 2202, 2255, 2256, 2265, 2266, 2282, 2283.

NSG 2282 **Adult Health Nursing II: Geriatrics (2)**
Continues to explore patient-centered care for adults and older adults with actual or potential health deviations. Focuses on an evidence-based approach to the nursing process within a culture of quality and safety. Emphasizes the role of the professional nurse for adults and older adults in acute and long-term settings. Applies theoretical knowledge from nursing, scientific, environmental and humanistic disciplines.
Prerequisites: NSG 1140, 1141, 2202, 2271, 2272, BIO 3372/L372.

NSG 2283 **Adult Health II Practicum: Geriatrics (2-4)**
Focuses on the role of the professional nurse in providing high quality nursing care to older adults and families. Utilizes an evidence-based approach in the continued application of the nursing process, emphasizing clinical decisions that are safe, ethical, patient-centered and collaborative to assist a diverse population of middle adults, and older adults with common health alterations. Includes visit to various residential car options available in the community.
Pre or Co-requisite: NSG 2282.
Prerequisites: NSG 1140, 1141, 2202, 2271, 2272, BIO 3372/L372.

(BSN Program)

NSG 1101 **Health Concepts (1)**
Provides opportunity for exploration of individual health values, beliefs, and behaviors. Examines impact of exercise, nutrition, and stress on health. Explores beliefs of time management, relaxation, and play in promoting and maintaining health. Open to all majors.

NSG 1105 **Medical Terminology (1)**
Develops the use of Latin and Greek prefixes, root words, and suffixes to understand medical terminology. Open to all majors.

NSG 1150 **First Responder (1-2)**
Provides the learner with cognitive and psychomotor skills to act in emergency situations. Topics include CPR, patient head-to-toe evaluation, bleeding and shock, internal and external body injuries, splinting, poisons, bites, burns, and drownings. May audit for recertification. Open to all majors.

NSG 1160 **Introduction to Technology in Nursing Education (1)**
Provides a foundation for using computer technology in nursing education. Addresses digital communication, resources, and research used in learning. Includes communication through electronic mail and course discussion using the World Wide Web as an information tool, online scholarly research, and digital presentations. Open to all majors.

NSG 1170 **The Art of Caring and Nursing Practice (3)**
Introduces students to the art of nursing and the holistic care of individuals and populations in a globally diverse society. Open to all majors.

NSG 2204 **Nutrition (2)**
A study of macro and micronutrients, their metabolism in the body, and their influence on health states of individuals from diverse cultural, ethnic and religious groups of all ages. Examines nutritional research and health policy. Compares

nutritional adequacy to evidence-based national standards. Open to all majors.

NSG 2205 Human Growth and Development (3)
Examines developmental theories and internal and external dimensions of growth and development. Emphasizes tasks, stressors, common health alterations, and anticipatory guidance specific to developmental stages throughout the life span. Open to all majors.

NSG 2211 Human Nutrition (3)
Explores the relationship between nutrition and health. Emphasizes the roles of nutrients, their utilization in the human system and their contributions to the health of individuals of all ages. Includes dietary patterns of various cultural, ethnic and religious groups, nutritional assessments, and food safety. Open to all majors.

NSG 2220 Health Science Informatics (3)
Provides a foundation for the study of information and its utilization through computer technology; encompasses access, dissemination, and management of health science information and Internet communication. General topics include communication through electronic mail, using the World Wide Web as an information tool, online scholarly research, and digital presentations and publishing. Course focus is the application of technology skills in health science fields. Open to all majors.
Prerequisite: sophomore standing.

NSG 2230 Advanced Medical Terminology (3)
Focuses on health and disease medical terms and building of knowledge of medical vocabulary with an emphasis on prefixes, suffixes, roots, and combining vowels. Anatomical, physiological, and pathological terminology are covered. Includes terminology related to the body systems. Open to all majors.

NSG 2240 Spanish for Healthcare Providers (2)
Elementary-level instruction in Spanish language and culture, all oriented to the practice of medicine with Spanish-speaking patients. No prior knowledge of Spanish is required. Students develop basic listening, speaking, reading and writing skills to successfully perform linguistic tasks allowing them to communicate in everyday situations (e.g. greeting, narrating present and past events, describing, ordering, comparing and contrasting).
Prerequisite: permission of instructor.

NSG 2285 Perspectives of Aging (3)
Presents interrelationships among physical, psychosocial, cultural, and spiritual components related to the older adult. Identifies senescence and alterations associated with the aging process in response to internal and external environmental dimensions. Open to all majors.

NSG 2290 Nursing in the Global Community (1)
Explores issues, philosophies and cultural differences in nursing in the global community. Compares nursing and healthcare in the United States to that of other nations.
Prerequisite: sophomore standing or permission of instructor.

NSG 2291 Nursing Study Abroad (1-3)
Provides the opportunity for students to experience nursing in the global community through a cultural immersion in a study abroad program. Focuses on the comparison of nursing in the United States to nursing in the international community.

NSG 3300 Dosage Calculations (1)
Uses mathematical principles, symbols, conversions and computations for accurate calculation of dosages for safe and effective medication administration for patients of all ages. Explores current evidence and health care policy related to safe and effective medication administration.
Prerequisite: admission to BSN program.

NSG 3301 Pharmacology (3)
Focuses on key pharmacological principles and the role of the nurse in management of drug therapy, including appropriate evidence-based patient teaching, counseling, and safety and quality controls. Presents drug classifications and related nursing implications for individuals of all ages.
Prerequisite: admission to the BSN program or permission of instructor.

NSG 3306 Perspectives of Professional Nursing (2)
Explores the roles of the baccalaureate degree nurse. Presents the principles, standards, and values implicit in the profession of nursing. Introduces the theories used in the definition of concepts of humanity, environment, health, and nursing. Introduces the development of key elements used in professional nursing practice: caring, evidence-based clinical decisions, communication, collaboration, cultural humility, ethical competence, research, and information technology. Explores the influence of internal and external dimensions on professional nursing practice.
Prerequisite: admission to the BSN Program.

NSG 3309 Health Assessment (2)
Focuses on the assessment phase of the nursing process as a means of collecting data for use in making clinical decisions for the promotion of safe, quality care. Emphasizes acquisition of knowledge and skills required to perform health assessments focusing on physical, psychosocial, cultural, and spiritual components of individuals at various ages and communication of findings.
Prerequisites: BIO 3347/L347, 3348/L348. Co-requisite: NSG 3310.

NSG 3310 Health Assessment Practicum (1-2)
Provides opportunities for students to practice health assessment skills required for culturally diverse individuals of all ages. Includes analysis and communication of findings for the promotion of safe, quality care. Requires demonstration of effective communication and performance of health assessment skills consistent with best practices.
Prerequisites: BIO 3347/L347, 3348/L348. Co-requisite: NSG 3309.

NSG 3313 Nursing Concepts (3)
Explores common health alterations for individuals of all ages in response to internal and external environmental dimensions. Examines the physical, psychosocial, cultural, and spiritual components influencing health states. Introduces the concept of illness as an alteration in health. Presents fundamental skills used in the implementation of therapeutic nursing interventions. Introduces evidence-based clinical decisions in the application of the nursing process for health promotion and clinical prevention.
Prerequisite: admission to BSN Program.
Prerequisite or Co-requisite: NSG 3300, 3306 3309/3310, 3315.
Co-requisite: NSG 3314.

NSG 3314 Nursing Concepts Practicum (3-6)
Provides clinical learning opportunities for students to develop basic nursing knowledge and skills for the care of individuals of all ages who require assistance in meeting basic health needs and adapting to common health alterations. Uses key elements in professional nursing practice in the application of the nursing process as a systematic approach to clinical prevention, health promotion and maintenance, and illness and restorative care. Requires validation of competencies related to safe performance of basic nursing skills.

Prerequisite: admission to BSN Program.
Prerequisite or Co-requisite: NSG 3300, 3306, 3309/3310, 3315.
Co-requisite: NSG 3313.

NSG 3315 Pathophysiology (3)
Explores the relationship between normal and altered physiology in human systems. Examines physiological adaptive responses to internal and external dimensions, including genetics, ethnicity, environment and age. Emphasizes pathophysiologic responses to altered states of health and disease on structures and functions of body cells, organs and systems. Open to all majors.
Prerequisites: BIO 3347/L347, 3348/L348.

NSG 3319 Informatics in Nursing (3)
Focuses on development of knowledge and skills in information management and patient care technology, including data gathering, technological supports for therapeutic nursing interventions, and clinical decision-support systems. Explores use of technology to gather evidence for support of best practices for the delivery of safe and quality nursing care. Presents software applications used in nursing informatics.
Prerequisites: NSG 3325/3326, 3334/3335 or admission to RN-BSN/MSN track.

NSG 3323 Maternal-Infant Health Nursing (3)
Explores both normal childbearing families and childbearing families with health alterations in response to internal and external environmental dimensions. Examines the interrelationships among the physical, psychosocial, cultural, and spiritual components of the childbearing experience. Emphasizes evidence-based clinical decisions for the utilization of therapeutic nursing interventions, communication, and collaboration in a caring environment for the promotion of optimal health states of childbearing families.
Prerequisites: NSG 3301, 3325/3326, 3334/3335.
Co-requisite: NSG 3324.

NSG 3324 Maternal-Infant Health Nursing Practicum (2-4)
Provides clinical learning opportunities for students to provide nursing care for childbearing families during the antepartal, intrapartal, postpartal, and neonatal periods. Emphasizes the use of clinical reasoning in the application of the nursing process in facilitating human adaptive responses to childbearing in the provision of safe, quality nursing care.
Prerequisites: NSG 3301, 3325/3326, 3334/3335.
Co-requisite: NSG 3323.

NSG 3325 Adult Health Nursing I (3)
Continues to explore the concept of illness as an alteration in health states. Presents principles of safe, effective medication and intravenous therapy administration. Explore health alterations in adults in response to internal and external environmental dimensions, focusing on surgery, gastrointestinal, endocrine, integumentary, immune, and musculoskeletal systems. Examines selected theories for interrelationships among physical, psychosocial, cultural, and spiritual components. Emphasizes evidence-based clinical decisions in a caring environment for the utilization of therapeutic interventions, communication, and collaboration for promotion of optimal health states in adults.
Prerequisites: NSG 3300, 3306, 3309/3310, 3313/3314, 3315.
Co-requisite: NSG 3326.

NSG 3326 Adult Health Nursing I Practicum (3-6)
Provides clinical learning opportunities for students to refine basic clinical skills and provide nursing care of adults with health alterations. Emphasizes clinical reasoning in the application of the nursing process in facilitating human adaptive responses to health alterations in the adult. Validates competencies related to medication and intravenous therapy administration.
Prerequisites: NSG 3300, 3306, 3309/3310, 3313/3314, 3315.
Prerequisite or co-requisite: NSG 3301.
Co-requisite: NSG 3325.

NSG 3334 Psychiatric-Mental Health Nursing (3)
Explores mental health alterations of all ages in response to internal and external environmental dimensions. Examines selected theories of mental health and illness for interrelationships among physical, psychosocial, cultural, and spiritual components. Emphasizes evidence-based clinical decision-making in the utilization of therapeutic nursing interventions, communication and collaboration for the promotion of optimal states of mental health.
Prerequisites: NSG 3300, 3306, 3309/3310, 3313/3314, 3315.
Co-requisite: NSG 3335.

NSG 3335 Psychiatric-Mental Health Nursing Practicum (2 -4)
Provides clinical learning opportunities for students to provide illness and restorative care for individuals experiencing alterations in mental health states. Emphasizes evidence-based clinical reasoning in the application of the nursing process in facilitating human adaptive responses to mental health alterations
Prerequisites: NSG 3300, 3306, 3309/3310, 3313/3314, 3315.
Co-requisite: NSG 3334.

NSG 3336 Adult Health Nursing II (3)
Continues to explore health alterations for adults in response to internal and external environmental dimensions, focusing on cardiovascular, respiratory, nervous, sensory, renal, reproductive, and multi-system trauma and shock. Examines selected theories for interrelationships among physical, psychosocial, cultural, and spiritual components. Emphasizes evidence-based clinical decisions in a caring environment for the utilization of therapeutic interventions, communication, and collaboration for promotion of optimal health states in adults.
Prerequisites: NSG 3301, 3325/3326, 3334/3335.
Co-requisite: NSG 3337.

NSG 3337 Adult Health Nursing II Practicum (2-4)
Provides clinical learning opportunities for students to further refine clinical skills and provide nursing care for adults with alterations in health states. Emphasizes clinical reasoning in the application of the nursing process in facilitating human adaptive responses to health alterations in the adult in the provision of safe, quality nursing care.
Prerequisites: NSG 3301, 3325/3326, 3334/3335.
Co-requisite: NSG 3336.

NSG 3340 Ethics in Nursing (3)
A discussion of traditional ethical theories, principles and meta-ethical concerns will provide the necessary background required to explore a variety of controversial issues such as euthanasia, abortion, and the new reproductive technologies. Objective and critical reflection about the issues will be developed into active discussions by the students.
Prerequisite: Permission of instructor.

NSG 3345 Physical Examination for Allied Health Professionals (2)
Focuses on physical examination of individuals by allied healthcare professionals as a means of collecting data for use in the making of clinical decisions. Emphasizes acquisition of knowledge and skills required to perform health assessments focusing on physical, psychosocial, and cultural

components of individuals at various ages and communication of findings.
Prerequisites: BIO 3347, BIO L347, BIO 3348, BIO L348.
Co-requisites: NSG 3346.

NSG 3346 **Physical Examination for Allied Health Professional Practicum (1)**
Provides opportunities for allied health professional students to practice physical examination skills required for culturally diverse individuals of all ages. Includes analysis and communication of findings for the promotion of safe, quality care. Requires demonstration of effective communication and performance of physical examination skills consistent with best practice.
Prerequisites: BIO 3347, BIO L347, BIO 3348, BIO L348.
Co-requisites: NSG 3345

NSG 3350 **Case Management in Healthcare (3)**
Provides theoretical foundation and practical information about case management in healthcare. Introduces the roles of the nursing case manager in a changing healthcare environment.
Prerequisite: NSG 3309/3310 or NSG 3345/3346.

NSG 3370 **Professional Nursing (2)**
Explores current issues, trends, principles, values, and standards impacting the profession of nursing. Examines theories related to the leadership/ management role of the professional nurse. Discusses evidence-based practice, information technology, quality improvement, patient safety and other current nursing practice topics related to meeting the emerging health needs in changing diverse global society in response to internal and external environmental dimensions.
Prerequisites: Current Registered Nurse license and admission to the RN to BSN/MSN clinical nursing sequence.

NSG 3380 **Pathophysiology and the Human Response (3)**
Explores the relationship between normal and altered physiology in human systems. Examines physiological adaptive responses to internal and external dimensions, including genetics, ethnicity, environment and age. Emphasizes pathophysiologic responses to altered states of health and disease structures and functions of body cells, organs, and systems. Open to all majors.
Prerequisite: BIO 3347/L347, 3348/L348

NSG 3390 **Global Identity: Connecting Your International Experience to Your Future (3)**
Studying abroad is a transformative experience that has the power to challenge our thinking and our perspective on the world. This course aims to attract students across disciplines, to promote inter-professional development, and to prepare them to expand their understanding of their global identity and communicate their growth in intercultural competence toward their personal and professional development. Students make connections between their study abroad experience and the broader range of skills connected with this experience, to become a competitive member of a global workforce.

NSG 4403 **Child Health Nursing (3)**
Explores health alterations in children in response to internal and external environmental dimensions. Examines selected theories of child health for interrelationships among developmental, physical, psychosocial, cultural, and spiritual components. Emphasizes evidence-based clinical decisions, communication and collaboration in a caring environment. Presents the role of the nurse in the promotion of optimal health for children of all ages.
Prerequisites: NSG 3319, 3323, 3324, 3336, 3337.
Co-requisite: NSG 4404.

NSG 4404 **Child Health Nursing Practicum (2-4)**
Provides clinical learning opportunities for students to integrate clinical prevention, health promotion and maintenance, and illness and restorative care for children experiencing alterations in health states. Emphasizes clinical reasoning in the application of the nursing process in facilitating human adaptive responses to health alterations in the child in the provision of safe, quality nursing care. Uses a variety of hospital and community settings.
Prerequisites: NSG 3319, 3323, 3324, 3336, 3337.
Co-requisite: NSG 4403.

NSG 4405 **Public Health Nursing (3)**
Provides a theoretical and empirical foundation for public health nursing practice. Explores the environmental, global, cultural, political and financial dimensions of public health. Emphasizes the nurse's role in the delivery of public health nursing care in health promotion and clinical prevention health for individuals, families, communities and populations.
Prerequisites: NSG 4403/4404, 4413/4414, 4419
Co-requisite: NSG 4406.

NSG 4406 **Public Health Nursing Practicum (2-4)**
Provides clinical learning opportunities for students to engage in public health nursing practice. Explores use of advocacy and application of environmental, global, cultural, political, and financial dimensions of public health nursing practice in health promotion and clinical prevention for individuals, families, communities and populations. Emphasizes clinical reasoning in the application of the nursing process for promotion of optimal public health.
Prerequisites: NSG 4403/4404, 4413/4414, 4419
Co-requisite: NSG 4405.

NSG 4407 **Clinical Nutrition (1)**
A study of clinical nutrition therapy for support of adaptive responses to potential or actual major disease-specific health alterations. Presents best practices with consideration of physical, psychosocial, cultural and developmental components for clinical decisions in the design and implementation of therapeutic nursing interventions for health promotion and clinical prevention for individuals, families, communities, and population.
Prerequisites: NSG 4403/4404, 4413/4414.

NSG 4410 **Population Health Nursing (3)**
Provides a theoretical and empirical foundation for nurses to explore the environmental, global, cultural, political and financial dimensions of a specific population. Emphasizes the nurse's role in the delivery of population-focused care in health promotion, clinical prevention, and overall health for diverse communities.
Prerequisites: Admission to the RN-BSN/MSN Clinical nursing sequence.
Co-requisite: NSG 4411.

NSG 4411 **Population Health Nursing Practicum (2-4)**
Provides clinical learning opportunities for students to engage in population-focused care. Explores use of advocacy and application of environmental, global, cultural, political, and financial dimensions of population-focused nursing practice in health promotion, clinical prevention, and overall population health. Emphasizes clinical reasoning in the application of the nursing process for promotion of optimal population health.
Prerequisites Admission to the RN-BSN/MSN clinical nursing sequence.
Co-requisite: NSG 4410.

NSG 4413 **Complex Nursing (3)**
Interprets complex, multi-system health alterations in response to internal and external environmental dimensions. Examines theories related to stress and

crisis management. Emphasizes evidence-based clinical decisions in a caring environment, utilization of communication and collaboration, and the integration of information technology, research findings, ethical competence, and cultural humility in nursing practice for the promotion of optimal health in individuals with complex, multi-system health alterations.
Prerequisites: NSG 3323/3324, 3336/3337, 3319.
Co-requisite: NSG 4414.

NSG 4414 Complex Nursing Practicum (2-4)
Provides clinical learning opportunities for students to provide nursing care for individuals and groups experiencing complex, multi-system health alterations in response to internal and external dimensions. Emphasizes clinical reasoning in the application of the nursing process in collaboration for promotion of optimal health states in response to complex, multi-system health alterations. Focuses on performance of complex care skills required for safe, quality nursing care.
Prerequisites: NSG 3323/3324, 3336/3337, 3319.
Co-requisite: NSG 4413.

NSG 4415 Nursing Leadership/Management (2)
Provides the theoretical foundation for implementation of the leadership and management roles of the professional nurse within nursing and health care organizations. Evaluates effective models and strategies for organizational management. Emphasizes evidence-based decisions in the management of the nursing organization within a caring environment.
Prerequisites: NSG 4403/4404, 4413/4414, 4419.
Co-requisite: NSG 4421.

NSG 4417 Professional Nursing Seminar (1)
Provides analysis of internal and external dimensions of selected professional, legal, ethical, political, economic, and sociocultural issues affecting nursing. Discusses the transition from student into the professional nurse's role, professional role development, and preparation for licensure. Requires satisfactory completion of exit exam per BSN program policy.
Prerequisites: NSG 4403/4404, 4413/4414, 4419.
Co-requisite: NSG 4421.

NSG 4419 Research and Evidence in Nursing Practice (2)
Explores the process for research and evaluation of best evidence in developing strategies for improvement of clinical outcomes. Examines the interrelationships among theory, practice, and research. Emphasizes the ethical and legal considerations in the conduct of research and appraisal of evidence.
Prerequisites: NSG 3323/3324, 3336/3337, 3319.

NSG 4421 Professional Nursing Clinical Preceptorship (3-12)
Facilitates transition into professional nursing practice. Provides opportunities for refinement of roles as a designer, manager, and coordinator of nursing care and provider of direct and indirect nursing care for individuals and families in a selected clinical area under the guidance of an approved preceptor.
Prerequisites: NSG 4403/4404, 4413/4414, 4419.
Co-requisite: NSG 4415, 4417.

NSG 4430 Advanced Nursing Theory (3)
Presents application of the leadership and management theories to manage care of individuals, families, communities, or populations adapting to internal and external environmental dimensions in a variety of dynamic and complex healthcare settings. Emphasizes the leadership and management role of the baccalaureate nurse. Integrates evidence-based practice, quality improvement, patient safety, information technology and healthcare policy.
Prerequisites: admission to the RN-BSN/MSN clinical nursing sequence or Flexible Option, NSG 3309/3310, 3319, 3370, 4410/4411.
Co-requisite: NSG 4431.

NSG 4431 Advanced Nursing Preceptorship (2-4)
Provides clinical learning opportunities for students to apply leadership and management theories in the management of individuals, families, communities or populations adapting to internal and external dimensions in a variety of healthcare settings. Emphasizes the leadership and management roles of the baccalaureate nurse. Integrates evidence-based practice, quality improvement, patient safety, information technology and healthcare policy.
Prerequisites: admission to the RN-BSN/MSN clinical nursing sequence or Flexible Option, NSG 3309/3310, 3319, 3370, 4410/4411.
Co-requisite: NSG 4430.

NSG 4440 Research and Evidence for the Practicing Registered Nurse (3)
Designed for practicing registered nurses to develop knowledge and understanding in the research process, to become research consumers, and evaluate and integrate current evidence for best practice. Examines the interrelationships among theory, practice, and research. Emphasizes the ethical and legal considerations in the conduct of research and appraisal of evidence. Incorporates professional writing skills in the appraisal and dissemination of evidence.
Prerequisites: Admission to RN-BSN/MSN clinical nursing sequence or Flexible Option; NSG 3319, NSG 3370.

NSG 4493-94 Guided Independent Study (1 to 3 credit hours)
Additional information is indexed under Academic Regulations.
Prerequisite: Permission of instructor. Also see index for "Independent Study and Research.."

PHILOSOPHY COURSES (PHI)

PHI 2201 Introduction to Political Philosophy (3)
Major Classical sources of political thought and the application of these sources to contemporary political issues.

PHI 2203 Introduction to Philosophy (3)
Brief history of philosophical ideas and the basics of Aristotelian logic.

PHI 2204 Ethics and the Modern World (3)
An introduction to basic ethics and to contemporary ethical issues.

PHI 2205 Introduction to Logic (3)
An introduction to the basic concepts, principles, and methods of argument analysis and evaluation.

PHI 2210 Critical Thinking (3)
Examines problem solving techniques; decision making; basic concepts of inductive and deductive reasoning. Promotes reasoning skills applicable to career- and real-life situations.

PHI 2215 General Topics in Philosophy (3)
An examination of a designed topic of special and/or current interest and importance generally not covered in regularly offered courses by the department.

PHI 2280 Travel Study in Philosophy (3)
Supervised investigation of relevant topics in philosophy through travel-study abroad or within the interior of United States.
Prerequisite: Permission of instructor.

PHI 3301 Western Philosophy (3)
Survey of philosophical ideas from the ancient Greeks through the 20th century.

PHI 3310 **Applied Ethics (3)**
Advanced study of the ethical issues that arise in such intellectual endeavors as medicine, law, business, military science, engineering, etc.

PHI 3320 **Non-Western Philosophies (3)**
Introduces students to the philosophical traditions of the non-western world. Emphasis is on non-contemporary traditions of metaphysics, cosmology, ethics, philosophy of religion, social and political philosophy and logic.

PHI 3322 **Philosophy of Religion (3)**
Examines philosophical issues relating to religion, including arguments for and against God's existence, the problem of evil, the relation between divine foreknowledge and human freedom, the relation between religion and science, the problem of faith and reason, and personal immortality.

PHI 3365 **Bioethics in Historical Context (3)**
Examines moral problems in biomedical and scientific research, including ethical issues surrounding research involving human and animal subjects, eugenics, the human genome project, cloning and stem cell research.

PHI 4493-94 **Guided Independent Study (1 to 3 credit hours per course)**
Guided independent study of a designed topic of special interest.
Prerequisites: PHI 2203 or 2204 or permission of instructor.

PHI 4495 **Selected Topics in Philosophy (3)**
Advanced study of a designed topic of special interest.
Prerequisites: PHI 2203 or 2204 or permission of instructor.

PHYSICS COURSES (PHY)

PHY 2252 **General Physics I (3)**
An introduction to the laws of mechanics and thermodynamics.
Prerequisite: MTH 1114.
Co-requisite: PHY L252.

PHY L252 **General Physics I Lab (1)**
Laboratory work emphasizes basic principles of mechanics and thermodynamics, the use of measuring instruments, and the interpretation of data.
Co-requisite: PHY 2252.

PHY 2253 **General Physics II (3)**
An introduction to the laws of optics, electricity and magnetism.
Prerequisite: PHY 2252/L252.
Co-requisite: PHY L253.

PHY L253 **General Physics II Lab (1)**
Laboratory work emphasizes basic principles of electricity, magnetism and optics, the use of measuring instruments, and the interpretation of data.
Co-requisite: PHY 2253.

PHY 2262 **Physics I with Calculus (3)**
Introduction to the principles and laws of mechanics and thermodynamics, utilizing the methods of calculus.
Co-requisite: MTH 1125 or higher math course, PHY L262.

PHY L262 **Physics I with Calculus Lab (1)**
Laboratory work emphasizes basic principles of thermodynamics and mechanics, the use of measuring instruments, and the interpretation of data.
Co-requisite: PHY 2262.

PHY 2263 **Physics II with Calculus (3)**
Introduction to the principles of electricity, magnetism and optics, utilizing the methods of calculus.
Prerequisite: PHY 2262/L262.
Co-requisite: PHY L263.

PHY L263 **Physics II with Calculus Lab (1)**
Laboratory work emphasizes basic principles of electricity, magnetism and optics, the use of measuring instruments, and the interpretation of data.
Co-requisite: PHY 2263.

PHY 3310 **Modern Physics (3)**
Topics covered include special relativity, quantum mechanics, statistical physics, and nuclear physics.
Prerequisites: MTH 1126, PHY 2263/L263.
Co-requisite: PHY L310.

PHY L310 **Modern Physics Lab (1)**
Selected experiments in modern physics.
Co-requisite: PHY 3310.

PHY 3320 **Mathematical Methods for Physicists (3)**
In this course, students will develop a basic understanding of the mathematical skills necessary to undertake a study in Dynamics, Electromagnetism, and Quantum Physics.
Prerequisite: MTH 2227.

PHY 3321 **Equations of Mathematical Physics (3)**
This introductory course in partial differential equations will undertake a study in heat transfer, fluid dynamics and wave propagation.
Prerequisite: PHY 3320.

PHY 3325 **Thermodynamics (3)**
In this course, students will be introduced to the basic principles of thermodynamics. Topics include, energy conservation, entropy, isolated systems at constant pressure and temperature and the corresponding thermodynamic potentials. Students will learn to apply these principles to other branches of science and engineering.
Prerequisites: PHY3310/PHYL310.

PHY 3359 **Waves and Optics (3)**
Topics of study in this course will include properties of waves, image formation, refraction, diffraction, origin of spectra, polarized light, and optical activity.
Prerequisite: PHY 2253/L253 or PHY 2263/L263.
Co-requisite: PHY L359.

PHY L359 **Waves and Optics Lab (1)**
Students will conduct selected experiments in waves, geometric and physical optics. Laboratory work emphasizes the basic principles of optics, the use of measuring instruments, and the interpretation of data.
Co-requisite: PHY 3359.

PHY 4420 **Mechanics (3)**
Introduction to the kinematics and dynamics of particles: escape and terminal velocity, drag, rotational motion and rotating frames, Foucault pendulum, planetary motion and Kepler's laws.
Prerequisites: PHY 2253/L233 and MTH 1126.

PHY 4435 **Electricity and Magnetism (3)**
Topics include static electric and magnetic phenomena. electric and magnetic potentials, motion of charged particles, dielectric and magnetic media, and fields in conductors.
Prerequisite: PHY 2263/L263, MTH 2227.

PHY 4438 **Electromagnetic Fields (3)**
Topics include electric and magnetic circuit elements. Maxwell's equations and boundary condition problems in one, two and three dimensions.
Prerequisite: PHY 4435.

PHY 4440 Dynamics of Particles & Systems (3)
Introduction to the dynamics of rigid body rotation, calculus of variations and minimization and the canonical formalism.
Prerequisite: PHY 4420.

PHY 4445 Quantum Mechanics I (3)
Introduction to the principles of quantum mechanics, one dimensional systems including the square well and the simple harmonic oscillator, uncertainty relations and multi-particle systems.
Prerequisites: PHY 3310, MTH 2227.

PHY 4446 Quantum Mechanics II (3)
Topics include quantum mechanics higher dimensional systems, angular momentum in quantum mechanics, spin, the Hydrogen atom, addition of angular momentum, WKB approximation, and perturbation theory.
Prerequisite: PHY 4445.

PHY 4460 Relativity I (3)
Topics include Lorentz transformation, inertial coordinates, causal Structure of Spacetime, equivalence principle, gravitational effects in SR, curved Spacetime, and introduction to black holes.
Prerequisites: PHY 3310, PHY 2263/PHY L263.
Co-requisite: PHY 4435.

PHY 4470 Nuclear Physics (3)
Topics include nuclear structure, nuclear forces, nuclear decays and reactions. Students will also learn to apply these principles to other branches of science and engineering.
Prerequisite: PHY 4445.

PHY 4475 Particle Physics (3)
The basic building blocks of matter and their interactions will be developed emphasizing their relationship to symmetry groups. We will introduce the photon, basic quantum electrodynamics, and introduce Feynman rules for interacting theories.
Prerequisite: PHY 4445.

PHY 4478 Relativity II (3)
Topics include rotating black holes, Hawking radiation, cosmology, tensor calculus, and Einstein field equations.
Prerequisites: Permission of instructor.

PHY 4482 String Theory (3)
Special Relativity in extra dimensions, electromagnetism and gravitation in various dimensions, non relativistic strings, the relativistic point particle, relativistic strings, string parameterization and classical motion, world sheet currents, light cone relativistic strings, light cone fields and particles, relativistic quantum point particles, relativistic quantum open strings, relativistic quantum closed strings, peek at relativistic superstrings.
Prerequisite:, PHY 4446, PHY 4460 (or permission of instructor).

PHY 4483-4485 Seminar in Relativity (1)
Selected topics of interest within the field of relativity. *Note: may be taken up to three times for credit.*

PHY 4491-92 Guided Independent Research (1 to 4 credit hours)
A physics research project under the direction of a faculty member. The project must culminate in a written report with the results reported at a department seminar.
Prerequisite: Senior standing or permission of department chair. Also see index for "Independent Study and Research.."

PHY 4493-94 Guided Independent Study (1 to 4 credit hours)
Independent study for advanced students under the direction of a faculty member.
Prerequisite: Permission of department chair. Also see index for "Independent Study and Research.."

PHY 4495 Topics in Physics (3)
Focus on a topic of timely nature and/or special interest.
Prerequisites: Permission of instructor.

PHY 4499 Senior Seminar (2)
The main objective of this course is to complete a research project in physics. You will be bringing together many of the ideas presented to you in your physics classes. In addition, you will need to acquire skill in project definition, time management, project completion timeline and schedule, clear and concise writing, and project presentation.
Prerequisite: Permission of the instructor.

POLITICAL SCIENCE COURSE (POL)

POL 1101 Politics and Popular Culture (3)
Politics and popular culture have always been closely connected. Politicians seek to show how connected they are to the public, and try to use media and popular culture to do this. In this class, we will spend time learning how to define "politics" and "popular culture" so that we can understand how they interact. We will identify examples of politics being expressed in popular culture, and explore times when popular culture appears to have affected politics. There is an emphasis on the historical progression of mass media, as well as the influence of the media on politics and policies.

POL 1110 Politics in the Digital Age (3)
The digital age has revolutionized the way that people get information and communicate. Where communication and information-gathering once took time and expertise, in the digital age, information and communication is now virtually instantaneous. This is both a benefit and hindrance to politics. On the one hand, candidates can have instant communication with supporters and the people that they represent. On the other hand, the ease of sharing information and communication lends itself to false narratives and presenting alternative truths. This class will examine digital media as a political tool. Students will learn how different digital media is from traditional media. They will learn positive and negative aspects of politics in the digital age. Students will be expected to actively engage in the political process through digital media. This class is a general studies course and will fulfill the general studies requirement.

POL 2240 Honors American National Government (3)
This course explores the stable political values that frame the US Constitution and have guided our societal environment for two hundred years. The course is intended for superior students and political science majors.

POL 2241 American National Government (3)
A study of the Constitution, federalism, the Presidency, Congress, the courts, and politics on the national level.

POL 2260 World Politics (3)
An investigation of the development, nature, and process of political actions across national boundaries in the global system. Topics include international security, comparative government, international political economy, international organizations, and new global issues.

POL 2270 Terrorism and Counterterrorism (3)
This introductory course introduces students to the study of terrorism and a discussion and critique of common counterterrorist strategies. It conceives terrorist violence as a politically motivated act employed to yield calculated political results. Thus, the goal of the course is to examine theoretical explanations of terrorist violence, the history of

terrorism as a political strategy, and the difficulties encountered by states seeking to engage in counterterrorism.

POL 2275 Elections (3)
Students taking this course will learn to apply critical thinking skills to the task of understanding t he process by which citizens of democratic societies elect their political leaders. Not limited to elections in the U.S., and among other things, this course emphasizes the role of elections in democratic theory, the electoral process and how it has changed over time, how citizens process the information needed to make decisions in elections and the role of the media, as well as the impact that gerrymandering and demobilization efforts have on electoral outcomes. We will explore the impact of elections on public policy, and the impact of public policy on elections. Discussion topics will include political parties, interest groups, voter fraud, voter intimidation, candidate-centered campaigns, campaign advertisement, ethics, and the role of rhetoric in elections.

POL 3300 Foundations of Political Science (3)
An introduction to the discipline of political science, this course offers an overview of the sub-fields and methods within the discipline.

POL 3330 Political Theory (3)
An examination of selected advanced sources of classical and modern political theory. Theoretical perspectives, which are prominent in contemporary political science, are investigated.

POL 3338 Women in Politics (3)
This course identifies and analyzes, from a historical and contemporary point of view, the political, social, and economic trends and issues facing women. The course analyzes political theories and public policies that shape women's political participation in the Unites States and elsewhere. This includes and examination of political institutions and processes at the national, state, and local governmental levels facing women.

POL 3339 African-American Politics (3)
This course identifies and analyzes, from a historical and contemporary point of view, the political, social. Economic trends and issues facing African-Americans. The course analyzes political theories and public policies that shape African-American political participation in the United States and elsewhere. Topics will vary to include the Civil Rights Movement, Black Presidential Bids, racism in American public policy, and U.S. Courts and Congress.

POL 3340 U.S. Government – Executive Branch (3)
An analysis of the American Presidency in the context of the Constitution, American political processes, national security, public opinion, and other branches of American government.

POL 3341 U.S. Government – Legislative Branch (3)
An analysis of the structure and dynamics of the U.S. Congress in the context of its relationships to the Constitution, the presidency, the judiciary, political processes and subordinate levels of government.

POL 3342 U.S. Government – Judicial Branch (3)
An analysis of the American federal judiciary in the context of its relationships to the Constitution, American political processes, the legislative and executive branches, state governments, and public opinion.

POL 3343 American Political Processes (3)
This course examines key topics in U.S. politics, specifically looking at national problems, actors and proposed solutions.

POL 3351 International Relations (3)
This course provides a comprehensive investigation of thinking about the relationship of both state and non-state actors in the international arena. It offers a framework for the further analysis of the discipline of International Relations including the principal schools of IR theory, the historical development of the contemporary international system, foreign policies of states, the search for state security, and the economic relationships between states within a global political context.

POL 3355 Southern Politics (3)
This course examines the history and processes of Southern politics, including the one-party system, the exclusion of African-Americans and poor whites from voting, the role of Southerners in the U.S. Senate and House of Representatives, and the current voting patterns and habits of the region. The course looks specifically at the politics of Alabama, Florida, Georgia, Mississippi, Louisiana, and South Carolina.

POL 3364 State and Local Politics (3)
An investigation of political processes and organization at the state and local level in the United States.

POL 3390 The Art of Political Science Research (3)
This course introduces students to the art and process of consuming and conducting political science research. Among topics to be covered are the epistemological and methodological skills. *Prerequisites: POL 3300 Foundations of Political Science.*

POL 4402 Political Geography (3)
An analysis of the reciprocal effects of geography and political organization on the behavior of states, including boundaries, national resources, spatial strategies, and maritime power.

POL 4405 Political Behavior and Public Opinion (3)
This course focuses on political behavior and public opinion, both of which play important roles in democratic governance. The course surveys the major concepts of importance and some of the major scholar debates in the areas of behavior and opinion research. This course is also designed to teach students how political scientists study actions and attitudes relevant to contemporary politics. Although the course concentrates mainly on the role that behavior and opinion play in US politics, comparisons will be made to other countries. *Prerequisites: POL 3390.*

POL 4410 International Political Economy (3)
An examination of the interrelationships between international politics and economics; states and markets, trade, foreign investment, international monetary affairs, foreign aid, state development strategies, and globalization.

POL 4415 International Conflict (3)
This course provides a detailed examination of patterns of international conflict and methods employed to manage them: bases, emergence, escalation, de-escalation, negotiation, mediation, termination, and consequences. Specific episodes of international conflict will be investigated.

POL 4420 Constitutional Law (3)
A survey of the legal, political, and methodological problems in constitutional law.

POL 4421 Introduction to Public Administration (3)
An introduction to the historical, institutional, and political context of the profession; current trends and issues; and the role of public administration in the larger governmental system.

POL 4422 Public Policy Making (3)
An introduction to the processes by which American public policy is formulated,

implemented, and evaluated and to the roles of policy analysts in solving various public problems.

POL 4424 Contemporary American Foreign Policy (3)
This course examines the foreign policy processes of the United States: historical traditions, political institutions, economic and military capabilities, the Congress, the Presidency, interest groups, the media, and public opinion.

POL 4432 Comparative Public Policy (3)
This course examines the process of policy making in a cross-comparative framework that illustrates how different nation states, both in the developed and the developing worlds, formulate and implement public policy.

POL 4433 Comparative Government (3)
A comparative analysis of state governments in the world with an emphasis upon political cultures, governmental institutions and political processes that lead to differences and international tensions.

POL 4445 Inter-American Relations (3)
This course examines the relationship between the United States and the remainder of the Western Hemisphere, with an emphasis on historical and contemporary Latin American relations.

POL 4450 Latin American Politics (3)
An introduction to the social and political institutions of Latin America.

POL 4451 Public Personnel Administration (3)
A survey of the basic principles and functions of personnel administration in the public service and of the current strategies for managing recruitment, placement, salary and benefit strategies, training, retirement, and other personnel functions.

POL 4452 International Law (3)
This course examines the sources and development of international law from a historical, political, jurisprudential, and philosophical standpoint. It will include a comprehensive investigation of state sovereignty, jurisdiction, the role of the United Nations, the regulation of the use of force in world affairs, and international human rights law.

POL 4453 Bureaucratic Politics (3)
A study of the theories of organizations and their structures as they affect the policymaking environment, examining goals, resources, effectiveness, equilibrium, and change relating to organizations and their relationship to administration.

POL 4460 Intercultural Relations (3)
An analysis of the influence of culture on interstate relations including theories, concepts, and applications.

POL 4464 Arab-Israeli Conflict (3)
This course focuses on the Arab-Israeli conflict since 1948 with a special focus on the challenges to conflict resolution on both the Arab and Israeli sides and the role great powers play in Middle Eastern
politics. The course will begin by examining the major historical events from the birth of Israeli to the present day. Attention will be given to important groups, events, movements that will allow the complexity of this relationship to come to light. Additionally, the course will focus on the relationship between the West, particularly Europe and the United States, and the Middle East.

POL 4465 Politics of the Developing World (3)
This course examines the political and economic challenges faced by developing states. Theories and models of development will be analyzed in a variety of ways.

POL 4466 Middle Eastern Politics (3)
An introduction to the social and political institutions of the contemporary Middle East.

POL 4467 Asian Politics (3)
An introduction to the social and political institutions of Contemporary Asia.

POL 4468 Russian Politics (3)
This course provides an introduction to Soviet, post -Soviet, and Russian politics and the way we in the West study and think about them. The substantive focus is on the political process and its policy outcomes. Primary attention will be directed to post -1991 (i.e., post-Soviet) political institutional, elite, and policy concerns.

POL 4469 Religion in Politics (3)
This is a course that deals with the intersection between two contentious topics in the United States, religion and politics. In this course, the focus is on the manner in which religion, defined in organizational terms, as a system of beliefs, as a source of faith and morality, and as specific types of behaviors, intersects with and influences various aspects of American politics. These aspects of politics include morality and "moral politics" issues, political behaviors, public and individual opinions, campaigns and electoral mobilization, as well as domestic and foreign policy.

POL 4470 European Politics (3)
An introduction to the social and political institutions of contemporary Europe.

POL 4472 Administrative Law (3)
This course examines the legal environment in which government agencies function, including the powers and procedures that control administrative discretion, rule-making, investigations, prosecuting, negotiating, and settling; constitutional law, statutory law, common law, and agency-made law; the liability of governments and their officers; and selected court cases and decisions.

POL 4474 Terrorism and Political Violence (3)
This course is designed to introduce students to the origins and significance of contemporary political violence with an emphasis on the phenomenon of terrorism. It employs an interdisciplinary, case-study approach.

POL 4476 Politics of Southeast Asia (3)
This course involves the study of politics in the Philippines, Indonesia, Vietnam, Laos, Kampuchea, Malaysia, Singapore, Brunei, Myanmar, and Thailand. It investigates the historical and cultural factors contributing to their political relationships within the region and internationally.

POL 4490 Internship in Political Science (1 to 3 credit hours)
Supervised work in an agency that can provide practical experience in the field of study.
Prerequisites: senior standing and approval of supervising instructor and the department chair.

POL 4491-92 Guided Independent Research (1 to 3 credit hours each)
Note: Additional information is indexed under Independent Study and Research.

POL 4493–94 Guided Independent Study (1 to 3 credit hours each)
Note: Additional information is indexed under Independent Study and Research.

POL 4495 Selected Topics in Political Science (3)
Examines selected topics of a timely nature and/or special interest within the field of political science.

PUBLIC RELATIONS JOURNALISM (PRJ)

PRJ 2230 **Introduction to Public Relations (3)**
This introductory course examines the communication and persuasion concepts underpinning public relations, in addition to public relations history, role, ethical and professional standards, strategic planning and tactical planning.

PRJ 3321 **Public Relations Cases and Strategies (3)**
A case study and project-based approach to public relations research, strategy setting and tactical implementation.
Prerequisites: PRJ 2230 and either JRN 1102 or PRJ 3375.

PRJ 3375 **Public Relations Writing (3)**
This course (designed for non-journalism majors) focuses on developing the professional writing skills required for public relations practitioners, AP style and how to write effectively for clients, the media and for online publications.

PRJ 4419 **Advanced Public Relations Tactics (3)**
Practical experience in preparation of public relations messages for a client. This course is limited to juniors and seniors
Prerequisite: PRJ 3321.
Co-requisite: PRJ 4423.

PRJ 4423 **Public Relations Case Studies (3)**
Application of public relations theory and best practices resulting in the creation of a complete public relations campaign for a client. This course is limited to juniors and seniors
Prerequisite: PRJ 3321.
Co-requisite: PRJ 4419.

PSYCHOLOGY COURSES (PSY)

PSY 2200 **General Psychology (3)**
A survey of the basic theories, concepts, principles, and research findings in the field of psychology.

PSY 2201 **Honors General Psychology (3)**
A survey of the basic theories, concepts, principles, and research findings in the field of psychology.

PSY 2205 **Psychology of Adjustment (3)**
A course in mental health, designed to assist the individual in making a good adjustment to the changing requirements of the environment.

PSY 2210 **Developmental Psychology (3)**
A study of human development across the life-span with emphasis on psychosocial, physical, emotional, and cognitive changes.

PSY 2230 **Orientation to Psychology (3)**
Introduction to the language of psychology, APA writing style, and library research. Also includes an over view of career paths in psychology.

PSY 3301 **Basic Statistics (3)**
An introduction to descriptive and inferential statistical concepts, methods, and tools. Topics to be covered include basic terminology, measurement, data description, probability, hypothesis testing, and inferential tests (parametric and non-parametric). May be used for Sociology credit.
Prerequisite: MTH 1110 or higher, with a grade of C or above.

PSY 3304 **Abnormal Psychology (3)**
The study of mental disorders emphasizing their etiology, classification and amelioration as described in the current classification system of the American Psychiatric Association.

PSY 3309 **Advanced Statistics (3)**
Advanced quantitative methods in psychology. Topics include linear regression, analysis of variance, non-parametric techniques, estimation procedures, individual and multiple comparisons, and experimental design.
Prerequisite: PSY 3301.

PSY 3310 **Sensation and Perception (3)**
A study of how sensory information helps both the human species and other animals to thrive. Exploration of the senses including their physiological makeup, development and functioning. Theoretical and empirical foundations of perception and the applications of perceptual knowledge are emphasized.
Prerequisite: six semester hours of psychology and sophomore standing or above.

PSY 3311 **Research Methods (3)**
An introduction to the design, analysis, and interpretation of behavioral research, including strategies for reviewing scientific literature and organizing a research report.
Prerequisite: PSY 2230 and PSY 3301.

PSY 3312 **Psychology of Women (3)**
The study of women's experience and gender issues in the context of psychological theory and research.

PSY 3315 **Cultural and Diversity Psychology (3)**
This course is a theoretical and empirical analysis of how culture is connected to human behavior. Global cultural differences and perspectives will be discussed including research studies, theory, and comparative analyses (i.e. Eastern vs. Western comparative analyses). Discussions will include human behavior across different countries, the evolution of culture, self and personality, mental and physical health, and living in multicultural worlds. Diversity topics will cover such issues as gender, ethnicity, classism, disability, worldviews, and role constructions. Diversity discussions will include stereotypes, biases, ageism, ableism, and gender role development. Sexual orientation and evolving cultural laws will be examined.

PSY 3316 **Mixed Methods Research (3)**
This course examines the advantages and techniques of mixing quantitative research methods in order to answer scientific questions within the field of psychology and other related fields. By learning how to integrate qualitative methodologies, when appropriate, students should gain an understanding that research should be guided by the questions we want to answer and not limited by the methodologies we prefer. Students will learn techniques for collecting, analyzing, integrating, interpreting, and reporting data from mixed methods research.
Prerequisites: PSY 3301.

PSY 3317 **Ethics in Research and Practice (3)**
This course introduces the student to ethical practices in psychology by focusing on the underlying principles of the 80+ standards of the APA Ethics Code. The course begins by covering the basics of the APA Ethics Code, including a brief history and an overview of general concepts. Next, it explores the four ethical concepts applicable to all psychologists: competence, informed consent, privacy and confidentiality, avoiding harm and exploitation. Finally, it relates these key concepts to specific situations, including assessment, treatment, research and publication, and teaching and supervision.

PSY 3320 **Child Psychology (3)**
The development of children from conception to puberty. Includes physical, cognitive, perceptual, language, social and emotional development.

PSY 3322 **Abnormal Child Psychology (3)**
A study of theories, research, etiology, assessment and diagnosis of mental disorders first seen in childhood or adolescence as defined by the current edition of the *Diagnostic and Statistical Manual of Mental Disorders.* Includes such disorders as

ADHD, conduct problems, anxiety, mood, mental retardation, and autism.

PSY 3325 **Adolescent Psychology (3)**
Adolescents from puberty to early adulthood. Includes physical, cognitive, social, emotional, and personality development in cultural context.

PSY 3330 **Health Psychology (3)**
This course studies the science that connects behavior to health, including psychological processes and the relationship between health and human behavior.

PSY 3332 **Family Violence (3)**
An in-depth study of violence in families, including spousal abuse, child abuse, elder abuse, relationship dynamics, protection services, treatment programs, legal defense strategies, and current legislation.
Prerequisite: Junior standing or above.
Note: May be taken for psychology or sociology credit, but not both.

PSY 3340 **Psychology of Learning (3)**
Introduction to learning and behavior in human and nonhuman animals, including fundamental principles and findings from laboratory investigations of classical, instrumental, cognitive, and social learning.

PSY 3346 **Educational Assessment (3)**
This course provides a study of measurement and evaluation techniques for the classroom teacher. Emphasis will be placed on the selection, evaluation, administration, scoring and interpretation of selected measures of student performance, achievement and behavior. The student will demonstrate skills in utilizing measurement data to plan appropriate learning activities for students.
Prerequisite: admission to TEP. Note: May not be used to meet the requirements for the psychology major or minor.

PSY 3351 **Theories of Learning (3)**
Critical analysis of the major theories of learning, including the works of Pavlov, Thorndike, Guthrie, Tolman, Hull, Skinner, and Mowrer.

PSY 3360 **Forensic Psychology (3)**
Forensic psychology is the application of the science and profession of psychology to questions and issues relating to law and the legal system. This course will introduce students to the specialty area of forensic psychology. Particular emphasis will be on applied aspects of the field.
Prerequisite: six semester hours of psychology.

PSY 3365 **Human Factors Psychology (3)**
Analysis of theoretical issues and research methods related to the interaction between people and machines and human performance. Topics include information processing theory, human control systems and displays, task simulation, perceptual and motor factors limiting human performance.
Prerequisite: six semester hours of psychology.

PSY 3370 **Comparative Psychology (3)**
This course examines the development, causal mechanisms, evolutionary history, and function of the behavior of animals, including humans.

PSY 3380 **Social Psychology (3)**
A theoretical and empirical analysis of social behavior, including selected topics related to social perception, social influence, social interaction, and applied social psychology.
Prerequisite: PSY 2230.

PSY 3385 **Evolutionary Psychology (3)**
An examination of human behavior and cognition from an evolutionary perspective.

PSY 3390 **Special Topics in Psychology (3)**
An examination of selected topics or issues in psychology.
May be repeated for credit when course content varies.
Prerequisite: six semester hours of psychology.

PSY 4400 **Advanced General Psychology (3)**
A comprehensive study of the discipline of psychology designed to expand the student's depth and breadth of knowledge in psychology. The Major Field Test (MFT) will be administered in PSY 4400.
Prerequisite: Senior status (90 semester hours of undergraduate courses) and a minimum of 15 semester hours of psychology.

PSY 4401 **Psychological Tests and Measurements (3)**
Selection, evaluation, administration, scoring, interpretation and uses of tests of intelligence, proficiency, interests, personality, aptitude and social adjustment.
Prerequisite: Additional three semester hours of psychology.

PSY 4402 **Principles of Counseling (3)**
Overview of major counseling theories and techniques, interviewing, assessment, professional issues and ethics, and a review of research and practical problems.
Prerequisite: six semester hours of psychology.

PSY 4405 **Experimental Psychology (3)**
Various techniques for conducting scientific research in psychology will be discussed. Course objectives include designing and conducting an experiment as well as analyzing and reporting the results.
Prerequisite: PSY 2230 and PSY 3301.

PSY 4410 **Industrial/Organizational Psychology (3)**
Application of psychology in business and industry, including employee selection, performance appraisal, motivation, organizational psychology, consumer motivation, group structures, and personnel problems.

PSY 4420 **Physiological Dynamics of Alcohol and Other Drugs (3)**
Study of physiological and psychological dynamics and resultant behavioral implications in use of alcohol and other drugs. Based on assessment of dynamics and behavior and application of diagnostic procedures using appropriate manuals and materials.

PSY 4421 **Physiological Psychology (3)**
The physiological correlates of behavior will be examined, including such topics as neurotransmitters and hormones, drugs, and the biological roots of mental disorders.
Prerequisite: PSY 2230 and an additional three semester hours of psychology.

PSY 4430 **Intro to Substance Abuse Counseling (3)**
This course provides an introduction to substance abuse counseling through studies of mind-altering substances; etiological theories of addiction; assessment interviewing and screening tests; individual, group, family, and other treatment options; relapse prevention; and community prevention programs.

PSY 4434 **Drug Education, Prevention and Intervention (3)**
A study of commonly abused drugs, drug abuse prevention, and treatment techniques. Examines characteristics of people at high risk to become substance abusers/addicted.

PSY 4435 **Treatment of Addictive Family Diseases (3)**
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.

PSY 4436 **Treatment Theories and Modalities of Addictive Diseases (3)**
A study of historical perspectives and the most effective treatment and assessment approaches of addictive diseases.

PSY 4450 **Theories of Personality (3)**
Critical analysis of major theories and systems of personality.
Prerequisite: six semester hours of psychology.

PSY 4451 **History and Systems of Psychology (3)**
Study of the development of psychology from its historical antecedents with special emphasis placed on contemporary schools and systems of psychological thought.
Prerequisite: PSY 2230 and Senior Status (90 semester hours of undergraduate courses).

PSY 4456 **Gerontology (3)**
The study of aging. Emphasis on biomedical, psychological, and social aspects of middle and late adulthood.

PSY 4459 **Applied Behavior Analysis (3)**
This course covers the characteristics of behavior analysis as well as the basics of behavior-change procedures. Students will design, plan, implement, and present a behavior-change project.

PSY 4461 **Applied Behavior Analysis Field Experience (3)**
Students will be provided individual supervision by an approved supervisor according to the behavior analysis certification board's (BACB) standards while engaged in the practice of applied behavior analysis. Travel to the assigned clinical site will be required. Regular and prompt attendance at the clinical site will be required. The supervisor must directly observe the student engaged in the practice of applied behavior analysis with their client at least once during every supervisory period in accordance to BACB standards. Students will engage in a variety of activities approved by the BACB such as (a) conduct behavioral assessments; (b) provide behavioral therapy to clients; (c) read related articles from the behavior analytic literature; (d) collect, graph, and analyze client and/or procedural integrity data; and (e) design and implement caregiver and/or staff training. This course may be taken for repeat credit with a different assigned client.
Prerequisite: PSY 4459 AND Instructor approval.

PSY 4462 **Applied Behavior Analysis Pre-Practicum (1)**
This course prepares students for participating in the applied behavior analysis practicum courses. Students must obtain liability insurance and pass a criminal background check. Students must pass a test on the ethics of working with special populations (e.g., client confidentiality). Students are required to take and pass the behavior analysis certification board's training module on experience and supervision standards. Students are required to complete 15 hours of observation of the practice of applied behavior analysis.
Prerequisite: PSY 4459 AND permission of the course instructor.

PSY 4460 **Cognitive Psychology (3)**
A study of human intellectual functioning including attention, perception, memory, problem solving, reasoning and language.
Prerequisite: PSY 2230 and an additional three semester hours of psychology.

PSY 4470 **Advanced Theories of Developmental Psychology (3)**
Comparative study of major developmental theories from the exogenous, endogenous, and constructivist paradigms. Includes history, structural components, contributions, criticisms, evaluation, and relevant research of each theory.
Prerequisite: six semester hours of psychology.

PSY 4474 **Evaluation of Research for the Behavioral Treatment of Individuals with Autism and Developmental Delays (3)**
This course will present a behavioral view of autism and provide a brief overview of the history of behavioral treatment of autism and other developmental delays. This course will provide a brief overview of single-subject research designs and data analysis. Students will evaluate research studies that are seminal in the field of the behavioral treatment of children with autism and developmental delays in terms of (a) ethics, (b) research design, and (c) visual analysis.

PSY 4475 **Theories of Training and Evaluation (3)**
Examines evaluation issues such as criteria development, organizational assessment, process and outcome criteria, along with instructional methodologies such as fairness in training, special populations, second careers, and ethics of organizational and industrial change.
Prerequisite: six semester hours of psychology.

PSY 4476 **Behavioral Treatment of Individuals with Autism and Developmental Delays (3)**
In this course, students will identify, describe, and practice behavioral change procedures using: (a) positive and negative reinforcement, (b) positive and negative punishment, (c) shaping, (d) each type of verbal operant, (e) extinction, and (f) differential reinforcement. Students will contrast discrete-trial teaching and incidental teaching methods and practice using both.
Prerequisite: PSY 4459.

PSY 4477 **Behavioral Assessment of Individuals with Autism and Developmental Delays (3)**
This course will prepare the student to conduct behavioral assessments including a functional behavior assessment (FBA), VB-MAPP, and ABBLS. Based on the results of the assessment, students will write a behavioral treatment plan.
Prerequisite: PSY 4459.

PSY 4478 **The Behavior Analyst as a Professional and Ethical Practitioner (3)**
Through a variety of topics and activities, this course will prepare the student for working in a professional setting (e.g., a clinic for the behavioral treatment of children with autism.) Topics covered include: (a) training and supervising others in implementing behavior-change procedures, including parents; (b) advanced behavior-change procedures such as contingency contracts, group contingencies, self-management, and programming for generalization and maintenance; (c) the Behavior Analyst Certification Board's ethical guidelines for behavior analysts; and (d) possible undesired side-effects of using behavior-change procedure such as reinforcement, extinction, and punishment. Students will design, plan, implement, and present a behavior-change project.
Prerequisites: PSY 4474, PSY 4477.

PSY 4480 **Senior Seminar in Psychology (3)**
A capstone course designed to integrate subject matter learned in previous courses, encourage critical analysis of contemporary issues, and contemplate future educational and employment opportunities in psychology.
Prerequisite: Senior standing.

PSY 4485 Psychology Study Aboard (3)
This course examines how culture is related to human behavior. Relates major principles and theories of psychology to two or more cultures during a Study Abroad experience in a host country or countries.
Prerequisites: PSY 2200 or Psychology Major or Minor.

PSY 4490 Field Experience in Psychology—I
This course is designed to provide students majoring or minoring in psychology with practical work experience in a psychology-related work setting within an approved agency or business. Students are required to complete a minimum of 45 documented, supervised clock hours during the semester or term in which enrolled in the course (transportation not provided). This class meets once a week in a seminar format. Students are required to meet with the Field Experience instructor the semester/term prior to the class in order to secure an approved site.
Prerequisites: Junior or senior standing, instructor approval, and an overall institutional GPA of 3.0.

PSY 4491 Guided Independent Research (3)
This course is designed to provide supervised research in the area of psychology. Opportunities for undergraduate research will be approved with attention to critical evaluation of research techniques, methods, and procedures. Selection of the problem must be approved by the professor under whom the study is to be conducted and the department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. Preparation of a scholarly paper and oral defense may be required.
Prerequisite: Junior or senior standing with a minimum overall GPA of 3.0. Guided independent research may be taken only in the applicant's major or minor field. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.".

PSY 4492 Guided Independent Research (1 to 3 credit hours)
This course is designed to provide supervised research in the area of psychology. Opportunities for undergraduate research will be approved with attention to critical evaluations of research techniques, methods, and procedures. Selection of the problem must be approved by the professor under whom the study is to be conducted and the department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. Preparation of a scholarly paper and oral defense may be required.
Prerequisite: Junior or senior standing with a minimum overall GPA of 3.0. Guided independent research may be taken only in the applicant's major or minor field. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.."

PSY 4493-94 Guided Independent Study (1 to 3 credit hours)
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisite: Junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research".

PSY 4495 Field Experience in Psychology - II
This course is designed to provide students majoring or minoring in psychology with practical work experience in a psychology-related work setting within an approved agency or business. Students are required to complete a minimum of 45 documented, supervised clock hours during the semester or term in which enrolled in the course (transportation not provided). This class meets once a week in a seminar format. Students are required to meet with the Field Experience instructor the semester/term prior to the class in order to secure an approved site.
Prerequisites: Junior or senior standing, instructor approval, PSY 4490 and an overall institutional GPA of 3.0.

PSY 4496 Applied Behavior Analysis Practicum I (3)
Prior to enrollment, students must have a criminal background check and professional liability insurance. Students must complete 250 hours of supervised experience delivering applied behavior analysis services in a clinical setting. Students are not allowed to be paid for their service delivery as they are receiving course credit. Students must meet with the instructor for class, which counts as the group- supervision component. During class, students will practice delivering behavioral-analytic services. Students must meet weekly with am approved Board Certified Behavior Analyst (BCBA) for individual supervision. During individual supervision, the BCBA must (a) observe the student engage in practice and (b) provide written and verbal feedback on that practice according to the BACB guidelines for supervision. The course is limited to 10 students.
Prerequisites: PSY 4478 AND permission of the instructor.

PSY 4497 Applied Behavior Analysis Practicum II (3)
Students must complete 250 hours of supervised experience delivering applied behavior analysis services in a clinical setting. Students are not allowed to be paid for their service delivery as they are receiving course credit. Students must meet with the instructor for class, which counts as the group-supervision component. During class, students will practice delivering behavior-analytic services. Students must meet weekly with an approved Board Certified Behavior Analyst (BCBA) for individual supervision. During individual supervision, the BCBA must (a) observe the student engage in practice and (b) provide written and verbal feedback on that practice according the BACB guidelines for supervision. The course is limited to 10 students.
Prerequisites: PSY 4496 AND permission of the instructor.

QUANTITATIVE METHODS COURSES (QM)

QM 2241 Business Statistics and Data Analytics (3)
An introduction to statistics and data analytics in business that supports business decisions and the solution to business problems utilizing descriptive and inferential statistical concepts and methods. Topics include grouping of data, measures of central tendency and dispersion, probability concepts, sampling, statistical estimation, and statistical hypothesis testing.
Prerequisite: MTH 1112 and IS 2241.

QM 3342 Introduction to Operations Research (3)
An introduction to quantitative techniques applicable to business and economics. Topics include queuing analysis, transportation programming, PERT/CPM, and simple linear regression.
Prerequisite: QM 2241.

QM 3345 Operations Management (3)
A study of how organizational processes add value as they convert inputs to outputs. Topics covered include the strategic relationship of operations with

other functional organizations, value chain concepts, and quantitative methods including forecasting models, inventory models, statistical process control, process models and project management methods. The course also provides a review of current supply chain philosophies such as JIT, MRP, and EOQ inventory management methods.
Prerequisites: Lower-level Core, MGT 3300, QM 2241, IS 2241.

READING/LITERACY COURSES (RED)

RED 0098 **Reading I (3)**
A Developmental / Remedial instruction course for those students who are deficient in basic reading skills such as word recognition comprehension and study skills. A placement test will be required.
Note: May not be audited. Institutional credit only.

RED 3310 **Language and Literacy K-6 (3)**
Literacy instruction for the K-6 learner with emphasis on child development, learning theories, individual differences, emergent and early literacy, principles of reading and language arts instruction, teaching strategies, and examination of current materials and instructional practices used in teaching literacy.
Prerequisite: admission to TEP.
Co-requisite: RED L310.

RED L310 **Language and Literacy Lab (1)**
This course includes Lab/Field-oriented experiences designed to enhance understanding of Literacy instruction for the K-6 learner with emphasis on child development, learning theories, individual differences, emergent and early literacy, principles of reading and language arts instruction, teaching strategies, and examination of current materials and instructional practices used in teaching literacy.
Prerequisite: admission to TEP.
Co-requisite: RED 3310.

RED 3380 **Children's Literature (3)**
The purpose of this course is to assist undergraduate students as they investigate and construct an understanding of and techniques to incorporate children's literature across the curriculum. Pertinent topics include award-winning authors and titles found in children's literature among a variety of genre, along with developmentally appropriate instructional techniques.
Prerequisite: admission to TEP.

RED 4401 **Reading in the Content Areas (3)**
This course provides a study of teaching reading in grades P-12, emphasizing methods in the content areas.
Prerequisites: admission to TEP.

RED 4483 **Reading Intervention Strategies (3)**
Principles of assessment and evaluation for improving the language and literacy learning. Pre-service teachers will be introduced to the variety of screening and testing instruments for use in modifying students' instructional programs. Formal and informal methods for classroom observations will be explored, and methods for translating data collected for classroom management and/or communication to learners' parents will be introduced. The issues of privacy and ethical treatment of confidential records will also be addressed.
Prerequisites: : (1) Admission to TEP and (2) RED 3310 or with the permission of the department chair or designee.
Co-requisite: RED L483.

RED L483 **Reading Intervention Strategies Lab (1)**
This course includes Lab/Field-oriented experiences designed to enhance understanding of principles of assessment and evaluation for improving the language and literacy learning.
Prerequisite: admission to TEP.
Co-requisite: RED 4483.

RED 4491-92 Guided Independent Research (1 to 3 credit hours)
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

RED 4493-94 Guided Independent Study (1 to 3 credit hours)
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: Junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.".

REHABILITATION COURSES (RHB)

RHB 2280 **Rehabilitation Research I (3)**
Introduction to statistical analysis concepts and principles necessary for understanding research reports and for the interpretation of data. Use of microcomputer statistical programs in the analysis of univariate, bivariate, and multivariate data including parametric and non-parametric analysis techniques. Topics include descriptive techniques, averages and measures of variation, tests of statistical significance, correlation and regression, and analysis of variance.
Prerequisite: MTH 1110 or 1112 and IS 2241.

RHB 2281 **Rehabilitation Research II (3)**
Introduction to research methodology and process with emphasis placed on the evaluation of practice. Understanding and using the journal research article as a tool for selecting appropriate intervention. Skills are built in using electronic data bases and information retrieval systems and integrated with writing skills necessary to critically evaluate the usefulness of research studies in practice application.
Prerequisite: RHB 2280.

RHB 3320 **Human Behavior In the Social Environment II (3)**
An examination of the social dynamics of discrimination and oppression and particularly, how discriminatory and oppressive environments have potential for negatively affecting bio psychosocial growth and development.

RHB 3340 **Social Policy and Planning (3)**
Exploration of the social policy formulation process and the building of analysis skills in the evaluation of social policy and programs. The impact of political, economic, and social forces is a focal point, and the process of incrementalism in implementation is examined.

RHB 3345 **Foundations of Rehabilitation (3)**
Review of historical, philosophical, and legislative development of the rehabilitation movement; focuses on current service delivery systems and trends.

RHB 3350 **Individual Differences and the World of Work (3)**
An orientation into the world of work along with the meaning and importance of work to the individual, family and community. Includes job search techniques, methods of doing job surveys and ways of classifying information.

RHB 3360 **Vocational Assessment (3)**
Processes, principles, and techniques used to diagnose vocational assets and liabilities of the individual. Emphasis upon the use of psychometric tests, work samples, and job samples.

RHB 3365 **Introduction to Visual Impairment (3)**
This course will provide an understanding of the medical, psychological, social, educational, and vocational issues that professionals must understand in order to work effectively with persons who are visually impaired.

RHB 3375 **Diversity (3)**
This course provides students with an understanding and appreciation of cultural diversity, Ethnic and gender sensitivity, as well as ageism, in social work practice with a variety of populations is highlighted.

RHB 3380 **Medical and Vocational Aspects of Physical Disabilities (3)**
Examines specific physical disabilities from medical, psychological, social, and vocational points of view. Covers a number of disabling conditions including etiology, characteristics, and implications for treatment.

RHB 3385 **Rehabilitation of Persons with Severe Disabilities (3)**
Course explores rehabilitation needs of persons with severe disabilities. Concepts, approaches, philosophy and ethical considerations related to independent living, supported employment, and advocacy efforts.

RHB 4405 **Juvenile Rehabilitation and Counseling (3)**
Treatment modalities, diagnostic techniques, intervention systems, concurrent problems, and counseling techniques with adolescents. Emphasis is upon evaluation of services, i.e., vocational, self-concepts, academic, psychotherapy, peer relations, group counseling, family relations, and life skill development.

RHB 4410 **Rehabilitation Pre-practicum (1)**
Preparation for RHB 4420.
Prerequisites: RHB major with senior standing or permission of instructor.

RHB 4420 **Rehabilitation Practicum (12)**
Provides experience in a rehabilitation setting with an emphasis on the multiple nature of human problems and the impact these problems have on persons with disabilities. Includes a weekly seminar plus a minimum of 500 hours in a particular agency setting.
Prerequisites: Rehabilitation major, RHB 4410. Practicum site must be approved by instructor during RHB 4410.

RHB 4450 **Senior Seminar (2)**
The impact of recent changes in federal and state legislation and the role and function of professional organizations and their positions on current issues.
Prerequisite: HS/RHB major with senior standing or permission of instructor.

RHB 9920 **Youth Leadership Forum Practicum (3)**
The goal of the Youth Leadership Forum (YLF) is to develop a network of young adults with disabilities who realize their ability to pursue meaningful employment and societal contributions, while helping break down the barriers to independence for people with disabilities. Students taking RHB 9920 serve as group leaders for YLF participants and organize and carry out group activities and participant events. Requires Pre-YLF leadership training during the spring semester and a commitment to live on campus with the YLF participants for approximately a week.
Prerequisite: permission of instructor.

RELIGION (REL)

REL 2210 **Introduction to Biblical Studies (3)**
An Introduction to the books of the Old Testament (Hebrew Bible) and New Testament in their historical settings, emphasizing textual analyses, literary forms/ their function and use in the past and present in both the Jewish and Christian traditions.

REL 2280 **World Religions (3)**
Historical development and basic beliefs of the world's major religions.

REL 2285 **Travel Study in Religion (3)**
Supervised investigation of relevant topics in religion through travel-study abroad or within the interior of United States.
Prerequisite: Permission of instructor.

RISK MANAGEMENT AND INSURANCE COURSES (RMI)

RMI 3335 **Principles of Risk Management and Insurance (3)**
An introduction to the legal principles underlying insurance, the basics of risk management, the application of risk management techniques to personal risk management problems, personal property and liability insurance contracts including the personal auto policy and the homeowner's package, insurance regulation, and the insurance marketplace.
Prerequisite: Lower-level Core or permission of department chair.

RMI 3346 **Life and Health Insurance (3)**
Study of types of life insurance and annuity contracts and their uses; regulations of life and health insurers; development of financial plans utilizing life insurance products; Social Security; group and individual health insurance products including major medical, disability income and long-term care policies and analysis of the marketplace.
Prerequisite: RMI 3335.

RMI 3348 **Property and Casualty Insurance (3)**
This course examines the fundamental coverage and policy provisions of the major types of commercial and personal property and liability insurance contracts. Also examined are the fundamentals of property and casualty insurance, including analysis of contracts, rating, underwriting, regulation, and financial strength of insurers.
Prerequisite: RMI 3335.

RMI 4440 **Corporate Risk Management (3)**
A study of the analysis and treatment of the risks faced by the business organization. Topics include the assessment and treatment of traditional risks (such as, property, personnel, and environmental risks) and emerging risks (such as, cyber, social media, and supply chain risks).
Prerequisite: RMI 3335 or permission of department chair.

RMI 4442 **Insurance Operations (3) (capstone)**
An introduction to the various functions performed within an insurance company and a study of insurance ethics. Topics include insurance regulation, marketing, underwriting, ratemaking, adjusting, reinsurance, and accounting. This course is the capstone course for the concentration.
Prerequisites: RMI 3335, RMI 3346, RMI 3348.

RMI 4465 **Insurance Law (3)**
An introduction to the legal principles underlying insurance contracts and the issuing of insurance contracts, with special emphasis on the U.S. legal system, contract law, property law, tort law, agency law, and employment law.
Prerequisite: RMI 3335.

RMI 4478 **Employee Benefit Planning (3)**
The course is designed to provide the student with a foundation of knowledge regarding the design and management of employee benefit plans. Topics include pensions, profit-sharing plans, 401(k) plans, group life and health plans, and flexible benefit programs.
Prerequisites: RMI 3335,

RMI 4491-92 **Guided Independent Research (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

RMI 4493-94 **Guided Independent Study (1 to 3 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

RMI 4498 **Internship (3)**
The internship provides students with the opportunity to gain real-world insurance experience as a summer employee of an insurance company. Students are interviewed and selected by the individual insurance companies. See the RMI department for specific requirements.

RMI 4499 **London Internship (3)**
The London internship provide students with first-hand exposure to the center of the excess and surplus lines market, Lloyds. See the RMI department for specific requirements.

SCIENCE COURSES (SCI)

SCI 2233 **Physical Science (3)**
Basic chemistry and physics for non-science majors
Co-requisite: SCI L233. Note: Credit does not count toward a major in any science curriculum.

SCI L233 **Physical Science Lab (1)**
Laboratory experiments in basic chemistry and physics.
Co-requisite: SCI 2233.

SCI 2234 **Earth and Space Science (3)**
Basic astronomy and geology for non-science majors.
Co-requisite: SCI L234. Note: Credit does not count toward any major in the sciences.

SCI L234 **Earth and Space Science Lab (1)**
Laboratory experiments in basic astronomy and geology.
Co-requisite: SCI 2234.

SCI 2240 **Principles of Astronomy (3)**
Basic facts and theories related to astronomical phenomena.
Co-requisite: SCI L240.

SCI L240 **Astronomy Lab (1)**
Star and constellation identification and observations using the telescope.
Co-requisite: SCI 2240.

SCI 3335 **Physical Geology (3)**
Constructive and destructive processes which alter the earth.
Co-requisite: SCI L335.

SCI L335 **Physical Geology Lab (1-2)**
Laboratory studies of constructive and destructive processes which alter the earth.
Co-requisite: SCI 3335.

SCI 3365 **Principles of Applied Science (3)**
In this course, we will learn the scientific method, and how it applies investigations in science and engineering. Students will learn how to ask well defined questions, propose hypotheses, test hypotheses, and learn on what basis one rejects or accepts a hypothesis. We will go on to see how these methods are applied in the fields of biology, chemistry, physics, and engineering. Finally, we will also see how misapplications of the scientific method leads to questionable pseudoscience.

SCI 3366 **Survey of Electronics Technology (3)**
In this course, students will develop understanding of basic concepts in electronics, including component identification and behavior, dc and ac circuit principles, solid-state devices, and both linear and switching circuits without getting into rigors of mathematics. Students will also learn how digital electronics fed to microprocessor technology. Students will be able to apply these learned concepts in design and analysis of electronics systems.

SCI 3370 **Toxic, Radioactive, & Hazardous Materials (3)**
In this course, students will learn the basic principles of hazardous materials management. The course will be suitable for students with limited scientific background knowledge in chemistry and physics.
Students will learn how to classify toxic, radioactive, and hazardous materials and evaluate the dangers associated with them. Students will study current industry practices and learn how to manage hazardous materials in a safe, legal, and economical manner.

SCI 4450 **Science in a Regulatory Environment (3)**
An examination of the applications of Biology, Chemistry, and Physical Sciences for compliance with select environmental regulations.
Prerequisites: Biology, Chemistry or Physical Science.

SCI 4474 **Internship in Science Education (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454.

SCI 4481 **Methods and Materials for the Secondary Teacher (3)**
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of biology/science materials for grades 6-12 will be covered in detail. A professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

SCI 4491-92 **Guided Independent Research (1 to 4 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

SCI 4493-94 **Guided Independent Research (1 to 4 credit hours per course per semester)**
Additional information is indexed under Independent Study and Research.

SECONDARY EDUCATION COURSES (SED)

SED 4400 **Classroom Management (3)**
This course is designed for all secondary and P-12 education majors. The purpose of this course is to establish a foundation of content and application relative to classroom management and discipline, emphasizing reflection, decision making, and integrated teaching/ learning strategies. Methodologies utilized will include discussion, lecture, field experience, case studies, problem
solving sessions, projects, and research.

SED 4454 **Internship Seminar for Secondary Education (3)**
This course provides seniors an opportunity during internship to examine 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.
Prerequisite: admission to TEP.
Co-requisite: SED Internship.

SED 4474 **Secondary Internship in Grades 6-12 (9)**
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454.

SED 4481 **Methods and Materials for the Secondary Teacher (3)**
Teaching methods, selection, organization and use of materials and resources in the secondary school discipline(s). Observation and teaching experiences will be included.
Prerequisites: EDU 3310 and admission to TEP.

SED 4491-92 **Guided Independent Research (1 to 3 credit hours)**
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

SED 4493-94 **Guided Independent Study (1 to 3 credit hours)**
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: Junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.".

SOCIOLOGY COURSES (SOC)

SOC 2275 **Introduction to Sociology (3)**
Survey of basic sociological concepts and the effect of social phenomena on individuals, groups and institutions. This course will not count toward the required upper level course hours needed for the sociology or social science minor or major.
Prerequisite for all 3000 and 4000 level courses.

SOC 2280 **Social Problems in Contemporary Society (3)**
An examination of conditions that are harmful to society. Topics include problems with social institutions, inequality, deviance, and social change.

SOC 3300 **Social Institutions (3)**
An analysis of several major social institutions, their structural components, processes, and resultant problems. Group interrelations and social change will be emphasized.
Prerequisite: SOC 2275.

SOC 3301 **Collective Behavior and Social Movements (3)**
This course provides an in-depth understanding of the dynamics of collective behavior and social movements and focuses both on domestic and global movements. A variety of social movements and counter movements are considered that span a variety of geographical regions and time periods. *Prerequisite: SOC 2275.*

SOC 3302 **Small Groups (3)**
An overview of the nature of small group dynamics. The course will explore group formation, group processes and group structures, as well as the role of leadership, conformity, power and status within the group.
Prerequisite: SOC 2275.

SOC 3305 **Visual Sociology (3)**
Visual sociology examines and produces visual perspectives on social life. It allows one to apply the sociological imagination in telling a visual story about social phenomena. Visual sociology utilizes all sorts of visual material in its analysis and methodologies. Hands-on use of smart phones and digital cameras will be utilized for applied class projects.
Prerequisite: SOC 2275.

SOC 3315 **Sociology of Rock and Roll (3)**
Sociological analysis of a very influential and popular music art form, from its origins in the first half of the twentieth century to more contemporary social contests. Examines the roles of race relations, social class, gender, inequalities, region, genre, commercial exploitation and technology in the evolution of rock and roll.
Prerequisite: SOC 2275.

SOC 3316 **Sociology of Popular Culture, Mass Media and Society (3)**
This course will examine popular culture and mass media and the theoretical frameworks that analyze their force in society. Mass media includes everything from television, film, radio, magazines, newspapers and the countless means of mass communication brought about through the Internet. Studying the mass media and its impact through popular culture is vital to sociologists given their profound influence on culture and social life.
Prerequisite: SOC 2275.

SOC 3323 **Juvenile Delinquency (3)**
An examination of social, economic, psychological, and physiological determinants of young people's behavior as it concerns family, community, and social worker.
Prerequisite: SOC 2275.

SOC 3331 **Sociology of the Family (3)**
Analysis of the family as a social institution and as a social group, with emphasis on the impact of the changing society on traditional family functions, courtship, role expectations, child rearing, and family stability. The course will examine changes in work patterns, marriage, divorce, and cohabitation over time including contemporary problems affecting marital relations and family interactions. Race, ethnicity, age, and gender differences will also be addressed.
Prerequisite: SOC 2275.

SOC 3332 **Family Violence (3)**
A course to provide students with an in-depth study of the problems of violence in families including spouse abuse, child abuse, elder abuse, and the dynamics and dangers of violent relationships. The study will examine the root causes of family violence and the devastating, multi-generational effects of violence on its victims and society. Students will study current societal responses to family violence including protection services, treatment programs, legal defense strategies, and current legislation.
Prerequisite: SOC 2275.

SOC 3345 **Criminology (3)**
Study of crime and its causes and measurements. Topics include various explanations of criminal behavior, typology of crime, criminal justice system, and social relations to crime.
Prerequisite: SOC 2275.

SOC 3346 **Deviant Behavior (3)**
This course will explore the social meaning and construction of social behavior outside normative boundaries. Deviance is relative social behavior that occurs outside social norms. By the end of this course, students will be familiar with, and think critically about the attitudes, behaviors, and meanings associated with society and social deviance. In addition, students will be introduced to topics related to law, social change, social power, conflict, structure, and culture.
Prerequisite: SOC 2275.

SOC 3355 **Death and Dying (3)**
This course provides an examination of individual and societal attitudes toward death and the dying process. It will include the emotions experienced, cultural variations, theoretical perspectives and institutional relationships.
Prerequisite: SOC 2275.

SOC 3356 **Sociology of Aging (3)**
Sociological examination of global social changes precipitated by the demographic phenomenon of the aging of U. S. society and other societies. Addresses the heterogeneity of the older population, their locations, perceptions, and constraints. Issues such as housing, transportation, health care, and death and dying are explored.
Prerequisite: SOC 2275.

SOC 3357 **Sociological Aspects of Human Sexuality (3)**
An examination of the cultural and social components of sexuality including current perspectives on sexuality, sex research and theory, cross-cultural perspectives and sexual diversity, gender issues, sexual relationships, sexual orientations, pregnancy and parenthood, sexually transmitted diseases, sexual victimization, sexuality across the life span, and recent social changes affecting sexuality in society.
Prerequisite: SOC 2275.

SOC 3360 **Introduction to Qualitative Research Methods (3)**
This course will provide students with an overview of qualitative (non-statistical) research methods. It will also familiarize students with the various areas of sociological study in which qualitative methods is preferred to quantitative research and will offer students the necessary training to engage in high-quality qualitative research. Special emphasis will include: participant observation, interviews, and on-line methodologies.
Prerequisite: SOC 2275.

SOC 3370 **Society and Environment (3)**
This is a course that will focus on the relationship between society and the environment. It will include individual, group (social movements) and institutional impacts on the environment and reciprocal effects.
Prerequisite: SOC 2275.

SOC 3380 **Sociological Social Psychology (3)**
A survey of Social Psychology from a sociological perspective. Emphasis is placed on classic topics such as the self-concept, the process of socialization, symbolic interactionism and the social construction of reality, as well as contemporary topics such as small group dynamics, power, social exchange and collective behavior.
Prerequisite: SOC 2275.

SOC 4406 **Urban Sociology (3)**
Historical, physical, economic, and social evolutions of urbanized areas. Emphasis on contemporary urban problems with implications for policy and planning.
Prerequisite: SOC 2275.

SOC 4408 **Rural Sociology (3)**
A study of rural society, its organization, agencies, institutions, population trends and composition, patterns of settlement, social processes and change in character.
Prerequisite: SOC 2275.

SOC 4409 **Political Sociology (3)**
An overview of politics and political systems from earliest times to the present with some emphasis on democratic systems in the U. S. and other modern countries.
Prerequisite: SOC 2275.

SOC 4411 **Population and Society (3)**
This course provides an exciting overview of how to analyze and think about changing population trends in the U.S. as well as around the world. Students will learn how to relate contemporary and pressing problems such as migration, population growth, fertility, death rates, and other population changes to current social and economic policy debates (e.g., funding for Social Security, education, healthcare, etc.). In this way, students can see the true impact of how population issues affect our society.
Prerequisite: SOC 2275.

SOC 4413 **Minorities in U. S. Social Structure (3)**
An analysis of the role of racial and cultural minorities in American society. Examines contributions of anthropology, sociology, and psychology to theories of minority/majority group relations.
Prerequisite: SOC 2275.

SOC 4420 **Sociological Theory (3)**
Survey of sociological theory with emphasis on theorists, their works and contributions to modern sociological theory.
Prerequisite: SOC 2275.

SOC 4421 **Social Inequality (3)**
This course examines the structure of social inequality both in the U.S. and in the international context. It reviews theories of inequality and also explores empirical data on stratification both domestically and globally. It also examines how we can try to achieve more social equality and social justice both nationally and globally.
Prerequisite: SOC 2275.

SOC 4425 Survey Research (3)
An overview of quantitative survey research techniques. Emphasis will be placed on questionnaire design, sampling techniques, data collection strategies, computerized data analysis, and the writing of quantitative research reports.
Prerequisite: SOC 2275.

SOC 4430 Sociology of Religion (3)
An examination of the social institution of religion. The course will discuss modes of worship, the relationship between various religious systems and other aspects of society, the categorization of religious groups into cults, sects, denominations and ecclesia, and the rise of secularization in the 21st Century.
Prerequisite: SOC 2275.

SOC 4434 Sociology of Gender (3)
Provides an analysis of the conceptualization of gender with a focus on the methods of studying gender, historical perspectives on gender, biological and social bases of gender, and how gender intersects with other stratification systems within societies globally. Using a multicultural perspective, special emphasis is placed on how gender is manifested in the family as well as other major social institutions.
Prerequisite: SOC 2275.

SOC 4440 Sociology and the Internet (3)
With the advent of the Internet, U.S. society and global society has had to confront a variety of social phenomena that have arisen due to this ever-changing technology. This course will examine some of the sociological questions that using the worldwide web has brought to forefront. In addition, this course will examine how to use the worldwide web to conduct sociological research.
Prerequisite: SOC 2275.

SOC 4444 The Sociology of Cinema (3)
This course is designed to critically examine sociological issues within American Society via the lens of cinema.
Prerequisite: SOC 2275

SOC 4445 Trends in Globalization (3)
The concept of "globalization" explores issues of social, cultural, political, and economic connectivity that are taking place between societies (of people) on our planet. This course examines the historical foundations and current trends of globalization. It also explores the opportunities and constraints that globalization brings to citizens throughout the world.
Prerequisite: SOC 2275.

SOC 4446 Sociology of Education (3)
This course provides an overview of the theories, methods and issues in the sociology of education today. Issues include text censorship, school and class size, race and gender inequalities, violence in schools, etc. Classroom activities will also explore various social influences on education and different learning modalities.
Prerequisite: SOC 2275.

SOC 4451 Peace, Conflict and Human Rights (3)
Sociological analysis of peace, conflict and human rights, with a focus on the last 100 years. Emphasis will be placed on non-violent struggles at the nation-state level internationally. The role of ethnic and religious affiliations in current war and conflict at home and abroad will also be examined.
Prerequisite: SOC 2275.

SOC 4456 Gerontology (3)
Gerontology is the study of the process of human aging in all its many aspects: Physical, psychological, and social. There is a specific emphasis on important elements of aging, such as socialization, family interaction, retirement, physical and psychological aging, and perceptions of older persons in contemporary society.
Prerequisite: SOC 2275.

SOC 4459 Sociology of Health, Medicine and Illness (3)
The sociological perspective applied to medicine. Topics include changing ideas of disease causation, the role of practitioners and patients, the institutional setting, differential delivery of health services, differential patterns of morbidity and mortality based on age, gender, race and socio-cultural variables, and the politics of health.
Prerequisite: SOC 2275.

SOC 4465 The Sociology of Sport (3)
An examination of the sociological perspective of sport as an institution. Particular emphasis is placed on the impact of sport on the individual, small groups, other institutions, and society.
Prerequisite: SOC 2275.

SOC 4490 Internship in Sociology (1-3)
Applications of skills and knowledge of sociology in government agency, foundation, public service institution or similar situation under the supervision of a faculty member.
Prerequisite: Approval of the student's academic adviser and department chair and SOC 2275.

SOC 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: SOC 2275, Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

SOC 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Supervised study through field and laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: SOC 2275, Junior or senior standing, with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

SOC 4495 Selected Topics (3)
Designed as a vehicle for the exploration of topics of current interest within the major discipline of sociology.
Prerequisite: SOC 2275.

SPECIAL EDUCATION COURSES (SPE) (COLLABORATIVE TEACHER)

SPE 3301 Advanced Introduction to Disabilities (3)
This course presents an overview of the social, emotional, physical, and learning characteristics of children and youth with moderate and severe disabilities. Emphasis is placed on information

regarding the definition, prevalence, and etiology of moderate and severe disabilities as well as information pertaining to the classification, assessment, placement, instruction, and programming needs and services for individuals with moderate and severe disabilities.
Prerequisites: SPE 3340 & Admission to TEP.

SPE 3302 **Introduction to Moderate/Severe Disabilities (3)**
This course presents an overview of the social, emotional, physical, and learning characteristics of children and youth with moderate and severe disabilities. Emphasis is placed on information regarding the definition, prevalence, and etiology of moderate and severe disabilities as well as information pertaining to the classification, assessment, placement, instruction, and programming needs and services for individuals with moderate and severe disabilities.
Prerequisite: admission to TEP.

SPE 3303 **Teaching Students with Mild Disabilities (6-12) (3)**
This methods course for prospective special-ed 6-12 collaborative teachers emphasizes methods and materials for adolescents with mild disabilities and provides a cross-category focus. Moreover, methods such as cognitive learning strategies are examined in depth.
Prerequisites: SPE 3349 and admission to TEP.

SPE 3304 **Teaching Students with Moderate/Severe Disabilities (6-12) (3)**
This course emphasizes a variety of educational strategies for secondary students with moderate and severe disabilities. Special emphasis is placed on the post-secondary adjustment of students with complex needs.
Prerequisites: SPE 3302 and admission to TEP.

SPE 3305 **Transition Planning (3)**
This course emphasizes educational strategies that promote the post-school adjustment of students with disabilities. Special emphasis is placed on the legal foundation of transition and effective transition models.
Prerequisites: SPE 3303, 3304, 3340, and admission to TEP.

SPE 3306 **Teaching Students with Mild Disabilities (3)**
This course will focus on organizational procedures, universal design of curriculum, methods and techniques used in educating students with specific learning disabilities, mild mental retardation, emotional/behavioral disorders, and attention deficit/ hyperactive disorders in grades kindergarten through six who are in need of academic and social learning support in the general education classroom or in a special education classroom. Emphasis will be placed on direct teaching, designing accommodations and adaptations to teaching materials and methods in an effort to assist the disabled learner in accessing the general education curriculum in both a resource room and/or an inclusive general education classroom. This course requires extensive work within the K-6 special education and general education classrooms of a public school.
Prerequisite: admission to TEP.

SPE 3307 **Strategies Instruction (3)**
This course bridges the gap between research and practice and extends knowledge of specific methods for teaching students K-6 with mild disabilities. The premise of this course is that strategic learning is critical for many students with mild disabilities in order that they may achieve academic success and function at the level of their potential.
Prerequisite: admission to TEP.

SPE 3309 **Teaching Students with Moderate/Severe Disabilities (3)**
This course emphasizes a variety of divergent strategies and resources that enhance the educational performance of students with moderate and severe disabilities. Special emphasis is placed on the design of a circle of care for students with complex needs.
Prerequisite: admission to TEP.

SPE 3340 **Diverse Learners (3)**
This course is oriented toward identifying exceptional students and providing appropriate learning experiences in the classroom setting. This course is a survey of the nature and needs of exceptional children and an introduction to their educational programs.

SPE 3362 **Policies and Procedures in Special Education(3)**
This course is an advanced undergraduate course for prospective special education collaborative teachers K-6. This course outlines the legal responsibilities and role of the special education teacher in the procedures and services of special education. The assessment/program planning program is emphasized.
Prerequisite: admission to TEP.

SPE 4407 **Inclusive Strategies (3)**
This course provides students with both the intrapersonal and interpersonal skills needed to effectively collaborate with other teachers, administrators, parents, and agencies.
Prerequisite: Admission to TEP.

SPE 4445 **Educational Evaluation of Exceptional Children (3)**
This course is designed to provide the pre-service teacher with knowledge and skills in the selections, evaluation, administration, scoring and interpretation of standardized instruments in the areas of academic achievement , diagnostic tests, adaptive behavior, and behavior rating scales. Students will demonstrate the utilization of test results for the development of an individualized education plan, individualized family service plan, and learning outcomes for the general education classroom.
Prerequisite: admission to TEP.

SPE 4454 **Internship Seminar (3)**
This course provides seniors an opportunity during internship to examine 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.
Prerequisites: SPE 4465 and admission to TEP.

SPE 4465 **Collaborative Teacher (6-12) Internship (9)**
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. The student will demonstrate skills of the innovative, informed, reflective decision-maker through the internship experience.
Prerequisite: SPE 4454 and admission to TEP.

SPE 4474 **Collaborative Teacher K-6 Internship (9)**
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. The student will demonstrate skills of the

informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP. Co-requisite: SPE 4454.

SPE 4491-92 Guided Independent Research (1 to 3 credit hours)
Undergraduate research with attention to critical evaluation of research techniques, methods and procedures.
Prerequisites: Junior or senior standing with a minimum overall GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Office of University Records. Guided independent research may be taken only in the applicant's major or minor field. Also see index for "Independent Study and Research.".

SPE 4493-94 Guided Independent Study (1 to 3 credit hours)
Supervised study through field or laboratory projects, guided readings, creative endeavors or achievement of specific skills.
Prerequisites: Junior or senior status, permission of guiding professor, approval of department chair and the dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which study is to be undertaken. May not be used to repeat a course for which a grade of D or below has been earned. Also see index for "Independent Study and Research.".

SPANISH COURSES (SPN)

Note: For additional information, see Placement in Academic Courses.

SPN 1141 Introductory Spanish I (3)
Introduction to the Spanish language and cultures.

SPN 1142 Introductory Spanish II (3)
Introduction to the Spanish language and cultures.
Prerequisite: SPN 1141 or permission of instructor.

SPN 2241 Intermediate Spanish I (3)
Development of basic language skills in Spanish.
Prerequisite: SPN 1142 or permission of instructor.

SPN 2242 Intermediate Spanish II (3)
Development of basic language skills in Spanish.
Prerequisite: SPN 2241 or permission of instructor.

SPN 3332 Advanced Spanish I (3)
Development of advanced language skills in Spanish with emphasis on aural comprehension, conversation, reading, and composition.
Prerequisite: SPN 2242 or permission of instructor.

SPN 3333 Advanced Spanish II (3)
Development of advanced language skills in Spanish with emphasis on aural comprehension, conversation, reading, and composition.
Prerequisite: SPN 2242 or permission of instructor.

SPN 3350 Spanish Culture on Location I (3-TBA)
Local orientation followed by study in a Spanish-speaking environment.
Prerequisite: Permission of instructor.

SPN 3351 Spanish Culture on Location II (3-TBA)
Local orientation followed by study in a Spanish-speaking environment.
Prerequisite: Permission of instructor.

SPN 3370 Selected Topics in Spanish (3)
Selected topics generally not covered in other Spanish courses.
May be repeated for credit. Prerequisite: SPN 2242 or permission of instructor.

SPN 4448 Spanish Literature I (3)
Selected authors, periods, or genres in the literature of Spain.
Prerequisite: SPN 2242 or permission of instructor.

SPN 4449 Spanish Literature II (3)
Selected authors, periods, or genres in the literature of Spanish-America.
Prerequisite: SPN 2242 or permission of instructor.

SPN 4451 Spanish Culture and Civilization I (3)
Geography, history, cultural achievements, institutions, and daily life of Spain.
Prerequisite: SPN 2242 or permission of instructor.

SPN 4452 Spanish Culture and Civilization II (3)
Geography, history, cultural achievements, institutions, and daily life of Spanish-American cultures.
Prerequisite: SPN 2242 or permission of instructor.

SPN 4491-92 Guided Independent Research (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

SPN 4493-94 Guided Independent Study (1 to 3 credit hours per course per semester)
Additional information is indexed under Independent Study and Research.

SOCIAL SCIENCE COURSES (SS)

SS 3375 Introduction to Social Science Inquiry (3)
Principles of pure and applied research for the social sciences. Special emphasis is given to the types of research methods employed by social scientists including survey techniques, field research, quasi-experimental designs and analytical procedures currently used in the social sciences.
Prerequisite: general studies math.

SS 3376 Statistical Applications of Social Science Inquiry (3)
A detailed description of what social scientists do with the information they gather. Particular attention is given to descriptive and inferential statistics, the relationship between research and policy, evaluation research, and research ethics.
Prerequisite: General studies math.

SS 3377 Spatial Applications of Social Science Inquiry (3)
Continued detailed description of what social scientists do with the information they gather. Particular attention is given to mapping data using geographic information systems, a technology with a wide range of applications.

SS 4474 Internship in Secondary Social Science Education (9)
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: SED 4454.

SS 4481 Methods and Materials for the Secondary Teacher (3)
A survey of teaching methods and materials appropriate for teaching in the content areas for grades 6-12. Topics addressed will include teacher evaluation in the public schools, collaboration with special education teachers, and lesson planning formats. In addition, teaching methods, selections organization and use of history/social science materials for grades 6-12 will be covered in detail. A

professional laboratory experience is included in this course.
Prerequisite: admission to TEP.

SS 4493-4494 Guided Independent Study (1-3)
Supervised study through field and laboratory projects, guided readings, creative endeavors or achievement of specific fields.
Prerequisites: Junior or senior standing, with a minimum GPA of 3.0, permission of guiding professor, approval of department chair or dean. A written request is to be submitted to the department chair at least two weeks in advance of the term in which the study is to be undertaken. It may not be used to repeat a course for which a grade of D or below has been earned. Application forms are available in the Departmental Office. Guided independent study may be taken only in the applicant's major or minor field.

SS 4498 Social Science Theory (3)
A survey of the major theorists in the social sciences, emphasizing those who made critical contributions influencing the several social science disciplines and contemporary theorists whose works have an interdisciplinary element.

SS 4499 Senior Seminar (3)
In this course, the senior-level social science student prepares for the transition to graduate school/career. The student explores himself/herself as a person and as a social scientists in an effort to choose a fulfilling career path. In addition to career exploration, students conduct a senior project in an area of interest consistent with their academic program.

SOCIAL WORK COURSES (SWK)

SWK 2250 Introduction to Social Work (3)
The student is introduced to the profession of social work. Class focuses on the knowledge, skills and values essential for effective practice. Each student will be provided an opportunity to have direct contact with a practicing social worker.

SWK 2280 Social Work Research I (3)
Introduction to statistical analysis concepts and principles necessary for understanding research reports and for the interpretation of data. Use of microcomputer statistical programs in the analysis of univariate, bivariate, and multivariate data including parametric and non-parametric analysis techniques. Topics include descriptive techniques, averages and measures of variation, tests of statistical significance, correlation and regression, and analysis of variance.
Prerequisite: MTH 1110 or 1112 and IS 2241.

SWK 2281 Social Work Research II (3)
Introduction to evidenced based assessment and case management to include understanding and using the current DSM and other assessment materials. Introduction to writing assessments based on standardized criteria to include a treatment plan and preliminary measurement of goals. The use of research journal articles and technical and research reports generated by corporate and governmental agencies will be demonstrated.
Recommend taking HS 2250 prior to this course.

SWK 3301 Children and Family Services (3)
Child welfare services from both the public and private sectors of social work practice will be assessed, emphasizing the availability and effectiveness of services for children and their families in the United States. The historical development of the child welfare movement will be examined.

SWK 3302 Social Service Resources (3)
Examination of social welfare services and institutions, public and private, to include historical development, philosophical basis, structure, and function.

SWK 3303 Crisis Intervention (3)
Case management techniques for dealing with crisis. Crisis theory, stress management, and time-limited intervention will be examined.

SWK 3304 Social Work Practice In Health Settings (3)
A survey of the use of professional social work in a variety of health care delivery settings. Exposure to basic medical terminology needed by social workers. Overview of the social aspects of disease, illness, and disability.

SWK 3320 Human Behavior In the Social Environment II (3)
An examination of the social dynamics of discrimination and oppression and particularly how discriminatory and oppressive environments have potential for negatively affecting biopsychosocial growth and development.

SWK 3340 Social Policy and Planning (3)
Exploration of the social policy formulation process and the building of analysis skills in the evaluation of social policy and programs. The impact of political, economic, and social forces is a focal point and the process of incrementalism in implementation is examined.

SWK 3375 Diversity (3)
This course provides students with an under standing and appreciation of cultural diversity, ethnic and gender sensitivity, as well as ageism, in social work practice with a variety of populations is highlighted.

SWK 3390 Social Work with Individuals and Families (3)
The melding of the systems and developmental perspectives and the problem-solving approach as a basis for generalist social work practice with individual and family systems. Assessment, intervention, and evaluation skills are developed.
Prerequisite: admission to the professional social work curriculum or permission of instructor.

SWK 4471 Social Work with Groups (3)
The student learns to identify group processes and use these in assessment and intervention with the group as a client system. Evaluation of practice is extended to group settings.
Prerequisite: SWK 3390. Co-requisite: SWK 4480.

SWK 4472 Social Work with Organizations and Communities (3)
Assessment and intervention with the community or organization as a client system. Skill building in evaluation of one's own practice continues.
Prerequisite: SWK 3390.

SWK 4480 Pre-Practicum Seminar (3)
This course will evaluate the student's ability (knowledge, values and skills) required to begin Social Work Field Experience. The class will focus upon areas essential for competent social work practice. In addition, the student will engage in resume development, interviewing skills and other exercises necessary to secure an approved Field placement. Rules and legislation governing social works on the state and federal level will be reviewed.
Prerequisite: Completing SWK Major Requirements.

SWK 4481 Social Work Practicum (12)
Placement in a social service agency which provides the opportunity to practice and develop beginning professional social work skills under the joint supervision of a faculty and an agency supervisor. Includes a weekly seminar plus a minimum of 500 hours in a particular agency setting.
Prerequisites: Social work major in good standing, SWK 4480. Practicum site must be approved by instructor during SWK 4480.

SWK 4482 **Social Work Practicum II (6)**
Placement in a social service agency which provides the opportunity to practice and develop generalist practice social work skills under the joint supervision of a faculty and an agency supervisor. Includes a weekly seminar plus a minimum of 200 contact hours in a particular agency setting. This is the first of two required Practicum courses.
Prerequisite: Social Work Major in good standing. Practicum must be approved by instructor in 4480.

SWK 4483 **Social Work Practicum III (6)**
Placement in a social service agency which provides the opportunity to practice and develop generalist practice social work skills under the joint supervision of a faculty and an agency supervisor. Includes a weekly seminar plus a minimum of 200 contact hours in a particular agency setting. This is the second of two required Practicum courses. The student must complete this course in the same agency as SWK Practicum II.
Prerequisite: Must complete Social Work Practicum II.

THEATRE COURSES (THE)

THE 1115 **Performance and Production Practicum I (1)**
Provides hands-on training related to theatrical productions in the Department of Theatre and Dance. Practicum students are assigned to casts (performers selected by audition) or crews in design, management, and-or technical theatre areas including scenery, props, lighting, sound, costumes, make-up, business, box office, and publicity. May be repeated for credit.

THE 1130 **Introduction to Theatre (3)**
An introduction to theatre as a fine art and as a vital part of our western culture, the course focuses on the aspects of audience, production, and performance. It is designed for the student who wishes to gain a fundamental understanding and an appreciation of the theatrical arts in our society.

THE 1132 **Introduction to Film (3)**
A historical and critical perspective of film production from North America, Europe, and Asia through which modern film production is interpreted, analyzed, and discussed. It is designed for the student who wishes to gain a fundamental understanding and an appreciation of film and its impacts on our culture and society.

THE 1150 **Creative Habit (1)**
A component of the Department of Theatre and Dance First Year Initiative program (FYI), Creative Habit is a part of the introductory learning community established at the entry level for incoming theatre and dance students. Centering on Twyla Tharp's book The Creative Habit, the learning community examines strategies for successful studies in Theatre and Dance.
Co-requisites: THE 1130 and TROY 1101.

THE 1160 **Audition and Portfolio Techniques (1-2)**
A continuation of the Department of Theatre and Dance's First Year Initiative (FYI) and Creative Habit Learning Community, this course provides an introduction to the practices and tools in the development of a professional audition, interview, and portfolio, and offers guidance in refining and presenting a professional self-image.
Prerequisite: THE 1150, and the permission of instructor.

THE 2215 **Performance and Production Practicum II (1)**
Provides hands-on training related to theatrical productions in the Department of Theatre and Dance. Practicum students are assigned to casts (performers selected by audition) or crews in design, management, and/or technical theatre areas including scenery, props, lighting, sound, costumes, make-up, business, box office, and publicity.
Prerequisite: THE 1115.
May be repeated for credit.

THE 2216 **Performance and Production Practicum III**
Provides hands-on training related to theatrical productions in the Department of Theatre and Dance. Practicum students are assigned to casts (performers selected by audition) or crews in design, management, and/or technical theatre areas including scenery, props, lighting, sound, costumes, make-up, business, box office, and publicity. May be repeated for credit.
Prerequisite: THE 2215.

THE 2211 **Theatre for Youth (1-3)**
Provides introductory exposure to the field of Theatre for Young Audiences, including hands-on experience in skills related to performance, production, literature, creation and development, and pedagogical implications and opportunities.

THE 2221 **Technical Theatre (2-3)**
A study of standard technical practices and equipment for the theatre.

THE 2230 **Performance Studio (1-3)**
This course provides a studio structure offering opportunities for student performance and production as well as development of new works, with emphasis on audience response and discussion. May be repeated for credit.

THE 2232 **Musical Theatre Repertoire (2-3)**
This course offers students opportunities to explore the musical theatre canon through historical context, vocal stylization, and performance techniques.

THE 2233 **Survey of the Broadway Musical (3)**
Traces the origins and surveys major works of Broadway musical theatre repertoire.

THE 2234 **Acting the Song (1-3)**
Students apply theatre performance techniques through rigorous individual and group study, with emphasis on good performance habits, storytelling, movement, listening and responding, navigation vocal production, song analysis, stage presence, and development of ensemble.

THE 2245 **Stagecraft Lab (1-3)**
Stagecraft Lab provides the basic elements of theatrical production through participation in acting (actors selected through audition), management, and/or technical theatre, including scenery, props, lighting, sound, costumes, makeup, business and publicity.

THE 2251 **Voice and Diction (2)**
Study of individual and group practice in the effective use and control of the mechanics of oral delivery with a focus on the "professional dialect," the general American dialect and/or the standard dialect. Includes use of the International Phonetic Alphabet.

THE 2271 **Fundamentals of Scenery and Lighting (2-3)**
A study of standard technical practices for the theatre within the scenery and lighting production areas.

THE 2272 **Fundamentals of Costumes and Makeup (2-3)**
A study of standard technical practices for the theatre within the costume and makeup production areas.

THE 2291 **Dramatic Literature I (3)**
A continual, enthusiastic, and serious reading of plays is essential to the developing theatrical artist. Students will read a carefully chosen variety of works for the stage and study their historical context/impact, critical merit, and dramatic structure.

THE 3300 **Fundamentals of Acting (2-3)**
An introduction to the basic principles, terminology, and disciplines of the actor.

THE 3301 **Acting I (2-3)**
A study of basic principles, terminology, and disciplines of the actor, including relaxation, concentration, movement, and characterization.

THE 3302 **Costume Techniques (2-3)**
A study of the techniques of costume construction, including methods of drafting patterns, building and/or modifying costumes, and the application of arts and crafts.

THE 3303 **Makeup Techniques (1-2)**
A study of the theory and techniques of stage make-up. Includes makeup for theatre, film, and video.

THE 3304 **Lighting Techniques (2-3)**
A study of stage lighting equipment and lighting practices.

THE 3313 **Creative Drama (2)**
Study and application of the techniques of creative drama and children's theatre.

THE 3315 **Performance and Production Practicum IV (1)**
Provides hands-on training related to theatrical productions in the Department of Theatre and Dance. Practicum students are assigned to casts (performers selected by audition) or crews in design, management, and/or technical theatre areas including scenery, props, lighting, sound, costumes, make-up, business, box office, and publicity. May be repeated for credit.
Prerequisite: THE 2216.

THE 3316 **Acting II (3)**
A study of advanced concepts of acting, focusing on script analysis and character development along with further study of voice, movement, and scene dynamics.
Prerequisite: THE 3301 and COM 2251 or permission of instructor.

THE 3321 **Scenic Design (3)**
The principles and techniques of drafting and designing in a variety of theatrical spaces.
Prerequisite: THE 2221 and completion of the THE 2245 rotation or permission of the instructor.

THE 3330 **Special Topics in Theatre (1-3)**
Examination of selected topics in theatre not included in the established curriculum. Content may be of a historical, thematic, technological, design, or specialized performance nature.
May be repeated for credit.

THE 3331 **Costume Design (3)**
A study of the theory, principles, and techniques of costume design applied to a series of theatrical projects.
Prerequisite: Completion of the THE 2245 rotation or permission of the instructor.

THE 3335 **Movement I (2)**
This course centers on the development of physical awareness and expressiveness building an understanding for a psychophysical approach to acting. The course examines personal body use and employs a variety of exercises, techniques, and theories of movement training designed to improve an actor's awareness of impulse and expressiveness of ideas.

THE 3336 **Acting III (3)**
Acting III is an in-depth exploration of advanced concepts of acting focusing on script analysis, character development, period styles, dialects, freedom of movement, and a professional work ethic. Students will also explore ways to find opportunities in film, television, major American markets, and graduate schools. In addition, emphasis will be placed on student's ability to instruct and coach other actors.
Prerequisites: THE 3301, THE 3316 and THE 3350.

THE 3344 **Lighting Design (3)**
A study of the principles of lighting design and equipment applications. Also covers drafting techniques for lighting.
Prerequisite: THE 3304 and completion of the THE 2245 rotation or permission of the instructor.

THE 3345 **Advanced Stagecraft Lab (1-3)**
A continuation of Stagecraft Lab designed for the upper level student.
Prerequisites: THE 2245 rotation or permission of instructor.

THE 3346 **Educational and Psychology Assessment in Fine Arts (3)**
This course provides a study of measurement and evaluation techniques for the secondary and P-12 teacher. Emphasis will be placed on the selection, evaluation, administration, scoring and interpretation of selected measures of student performance, achievement and behavior. The student will demonstrate skills in utilizing measurement data to plan appropriate learning activities for students.

THE 3350 **Script Analysis (2-3)**
Focuses on the nature of the text, playwright's purpose, dramatic structure, and style. The course will examine how the actor, director, designer, and technician approach a play and how that understanding translates into the staging.

THE 3352 **Sound Techniques (2)**
A study of digital and analog recording techniques, recording equipment, and application.

THE 3354 **Rendering Techniques for the Theatre (2)**
A study and application of traditional and experimental techniques for theatrical rendering, including watercolor, markers, pastels, pencils, and other media.

THE 3360 **Playwriting I (3)**
This course is an introductory class for creative students interested in writing plays. The course is designed to teach students to create with the basic building blocks of dramatic structure, character development, good dialogue, strong storytelling, and offers methods for marketing students and their work.

THE 3370 **The Theatre Professional (3)**
A preparation course that provides upper-level students with the tools to launch their professional theatrical career and livelihood.
Prerequisite: Junior status.

THE 3365 **Fundamentals of Design for Theatre (3)**
An Introduction to theatrical design and conceptual thought through interpretation, visualization, and applied practices.

THE 3380 **Travel Study in Theatre (1-3)**
Supervised study of theatre through travel abroad or within the United States.
May be repeated for credit.
Prerequisite: Permission of instructor.

THE 4415 **Performance and Production Practicum V (1)**
Provides hands-on training related to theatrical productions in the Department of Theatre and Dance. Practicum students are assigned to casts (performers selected by audition) or crews in design, management, and/or technical theatre areas including scenery, props, lighting, sound, costumes, make-up, business, box office, and publicity. May be repeated for credit.
Prerequisite: THE 3315.

THE 4416 **Performance and Production Practicum VI (1)**
Provides hands-on training related to theatrical productions in the Department of Theatre and Dance. Practicum students are assigned to casts (performers selected by audition) or crews in design, management, and/or technical theatre areas including scenery, props, lighting, sound,

costumes, make-up, business, box office, and publicity. May be repeated for credit.
Prerequisite: THE 4415.

THE 4441 Oral Interpretation (2)
Study and application of the principles and practices of oral interpretation (reading) of literature, including individual and ensemble performance.
Prerequisite: COM 2241 or permission of the instructor.

THE 4443 Theatre History I (3)
Through the study of literature and dramaturgy, this course traces the history of theatre from the origins of drama to English Restoration drama of the 18th century.
Prerequisite: ENG 2205.

THE 4444 Theatre History II (3)
Through the study of literature and dramaturgy, this course traces the history of the theatre from the 19th century to the present.
Prerequisite: ENG 2206

THE 4451 Directing I (3)
Script analysis and directing principles with studies in the direction of scenes from contemporary plays.
Prerequisite: THE 3301.

THE 4452 Directing II (2-3)
Advanced study of directing, extending to period styles and culminating with the production of a one act play.
Prerequisites: THE 3301, 4451.

THE 4454 Creative Project (2)
Requirement for all graduating theatre majors in a comprehensive program of study. Couse involves creation of a theatrical event or process within the student's concentration area. The student will develop a major field-related project, including conceptual proposal and written and verbal defense of project. This course will facilitate the comprehensive assessment of student mastery in theatrical production.

THE 4455 Theatre Senior Capstone (1-2)
Senior seminar requiring students to integrate and extend the knowledge and practice of theatre as they investigate and plan post-graduate opportunities. Students complete a comprehensive exit exam, complete a program assessment and take the Praxis II in the Theatre content area.
Prerequisite: Proof of Praxis registration and Creative Project Proposal.

THE 4456 Developing an Educational Theatre Program (2)
Administration aspects of an educational theatre program (P-12) including scheduling, recruitment, appropriate use of support groups and partnerships, play selection, evaluation, purchase and maintenance of resource materials and equipment, business management, performance, co-curricular and extracurricular events such as festivals and competitions. Also include theatre careers and other opportunities utilizing theatre skills as well as national theatre standards for P-12.
Prerequisites: THE 4451, junior status.

THE 4472 Internship in Grades P-12 (9)
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. The student will demonstrate skills of the informed, reflective decision maker throughout the internship experience.
Prerequisite: admission to TEP.
Co-requisite: IED 4454.

THE 4481 Methods and Materials for the Theatre Teacher (3)
Teaching methods, selection, organization and use of theatre related materials and resources in grades P-12. Units of study will be categorized by grade levels. Observation and teaching experience will be included.
Prerequisites: THE 3313, 4456, EDU 3310, admission to TEP.

THE 4491-92 Guided Independent Research (1 to 3 credit hours per course)
Information is indexed under Independent Study and Research.

THE 4493-94 Guided Independent Study (1 to 3 credit hours per course)
Information is indexed under Independent Study and Research.

THE 4496-97 Internship (3 to 6 credit hours per course)
An internship with a recognized professional theatre program or company in which the student is assigned specific tasks in one of the recognized areas of theatre arts. The number of credit hours earned will depend upon the number of hours contracted for in the internship agreement. The course is designed to give the student an opportunity for practical application of skills in theatre arts in a professional theatre setting. The student must apply and meet admission requirements.

TROY UNIVERSITY COURSES (TROY)

TROY 1101 University Orientation (1)
The primary purpose of this course is to assist entering students in acquiring the necessary knowledge and skills to manage effectively the Troy University campus environment in order to maximize their potential for success at the University, in their careers, and throughout their lives.

TROY 1102 Major Exploration and Planning (1)
The primary purpose of this course is to assist students who are undecided in their educational and career plans to identify interests, skills and values, and to develop goals. It also serves to assist non-traditional students considering a career change.

TROY 1103 College Success Strategies (1)
The purpose of this course is to ~~e~~ducate and equip Troy University students with information, skills and experiences necessary for current and long term success, both in college and in life.

TROY 1104 Informed Citizenship (1)
This course is designed to examine the role of academic scholarship and the intellectual, civic and interpersonal outcomes of higher education. Through the course, students will engage in a service learning project while studying and reflecting on readings and activities to promote critical thinking skills, civic engagement and student success.
Prerequisite and/or co-requisite: TROY 1101, Membership in First Year Studies Program Learning Community.

TROY 1160 Public Issues First Year Seminar (2)
Students will develop academic skills needed for college success while exploring civic and global issues faced in the 21st century. Students will develop an understanding of Troy University, career and scholastic development while engaging in critical thinking, readings and a service learning project focused on a public issue.

TROY 3300 College to Career (3)
The primary purpose of this course is to aid students in making a successful transition from college to career. It also serves to aid non-traditional students in career transition.