

Course Descriptions

This section lists the descriptions for all courses offered at Athens State University.

Discipline Area and Prefix (in alphabetical order by <u>discipline prefix</u>)				
<u>Accounting (AC)</u>	<u>Acquisition and Contract Management (ACM)</u>	<u>Adult Degree Program (ADP)</u>	<u>Advanced Manufacturing Management (AMM)</u>	<u>Aerospace Systems Management (ASM)</u>
<u>Art (AR)</u>	<u>Athens State Teach (ASTE)</u>	<u>Biology (BI)</u>	<u>Children’s Advocacy Studies Training (CA)</u>	<u>Career and Technical Education (CE)</u>
<u>Chemistry (CH)</u>	<u>Criminal Justice (CJ)</u>	<u>Cooperative Education (CP)</u>	<u>Computer Science (CS)</u>	<u>Drama and Theatre Arts (DR)</u>
<u>Economics (EC)</u>	<u>Education (ED)</u>	<u>English (EH)</u>	<u>Elementary Education (EL)</u>	<u>Early Childhood Education (ER)</u>
<u>Enterprise Systems Management (ESM)</u>	<u>English for Speakers of Others Languages (ESOL)</u>	<u>Finance (FIN)</u>	<u>General Business (GBA)</u>	<u>Geography (GO)</u>
<u>General Science (GS)</u>	<u>Health Care Management (HCM)</u>	<u>Homeland and Corporate Security (HCS)</u>	<u>Health and Physical Education (HPE)</u>	<u>Health Science (HS)</u>
<u>Humanities (HU)</u>	<u>Health and Wellness Management (HWM)</u>	<u>History (HY)</u>	<u>Information Systems Management (ISM)</u>	<u>Information Technology (ITE)</u>
<u>Logistics and Supply Chain Management (LSM)</u>	<u>Mathematics (MA)</u>	<u>Management of Cybersecurity Operations (MCO)</u>	<u>Management (MG)</u>	<u>Marketing (MK)</u>
<u>Music (MU)</u>	<u>Nursing (NUR)</u>	<u>Occupational Health and Safety Management (OHSM)</u>	<u>Philosophy (PH)</u>	<u>Political Science (PO)</u>
<u>Psychology (PS)</u>	<u>Religion (RE)</u>	<u>Secondary Education (SC)</u>	<u>Special Education (SE)</u>	<u>Sociology (SO)</u>
<u>Social Science (SS)</u>	<u>University Success (UNV)</u>			

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Accounting (AC)

- AC 302 Management Information Systems (3 Sem. Hrs.) (Also listed as MG 302)**
Prerequisite: *Windows applications course (CIS 146 or GBA 301)*
(Student Learning & Licensure-formerly Livetext-required). An examination of the role of information systems in organizations and how they relate to the objectives and structure of an organization. Emphasis is given to providing a broad overview of the information system management function.
- AC 303 Management Decision Support Systems (3 Sem. Hrs.) (Also listed as MG 303)**
Prerequisite: *Windows applications course (CIS 146 or GBA 301)*
An analysis of the nature of the decision making process and an examination of support systems. Instruction will emphasize an advanced application of spreadsheet and database management software.
- AC 305 Fundamentals of Accounting I (3 Sem. Hrs.)**
This course provides an introduction to the financial accounting concepts, procedures and reporting practices. Emphasis is placed on the elements of the accounting cycle for service and merchandising enterprises.
- AC 306 Fundamentals of Accounting II (3 Sem. Hrs.)**
Prerequisite: *Principles of Accounting I (BUS 241) or AC 305*
This course is a continuation of AC 305. In addition to a study of financial accounting, this course also provides a brief overview of managerial accounting concepts and principles as well as investment analysis.
- AC 312 Law for Accountants (3 Sem. Hrs.)**
Prerequisite: *Legal Environment of Business (BUS 263 or GBA 311)*
A study of law subjects the accountant encounters including contracts, the UCC, business organizations, and accountant liability.
- AC 315 Managerial Accounting (3 Sem. Hrs.)**
Prerequisite: *Principles of Accounting II (BUS 242) or AC 306*
This course will provide an introduction to the internal reporting that managers use in planning and controlling operating systems, decision making, formulating major plans and policies, and costing products for inventory valuation and income determination. The course is designed to benefit all students who will be future users of accounting information.
- AC 321 Intermediate Accounting I (3 Sem. Hrs.)**
Prerequisite: *Principles or Fundamentals of Accounting II (BUS 242 or AC 306)*
A survey of the financial reporting process, detailed study of financial statements, and an analysis of generally accepted accounting principles.
- AC 322 Intermediate Accounting II (3 Sem. Hrs.)**
Prerequisite: *AC 321*
An in-depth study of accounting theory applicable to the major asset categories of a business entity.
- AC 323 Intermediate Accounting III (3 Sem. Hrs.)**
Prerequisite: *AC 322*
A review of the application of accounting theory to liability and stockholders equity balance sheet categories, culminating with a study of special purpose financial statements.
- AC 361 Federal Tax Accounting I (3 Sem. Hrs.)**
Prerequisite: *Principles or Fundamentals of Accounting II (BUS 242 or AC 306)*
An overview of federal tax laws and regulations applicable to individuals and sole proprietors.
- AC 362 Federal Tax Accounting II (3 Sem. Hrs.)**
Prerequisite: *AC 361*
The application of the federal income tax law as it applies to partnerships and corporations, with emphasis on the differences which exist between financial and tax accounting.
- AC 401 Auditing (3 Sem. Hrs.)**
Prerequisites: *AC 302 and AC 322*
Auditing theory and practice, with emphasis given to the function of the audit in the certification of financial statements by an independent auditor.
- AC 411 Government Contract Accounting I (3 Sem. Hrs.)**
Prerequisites: *AC 303 and AC 322*
A study of government contract accounting concepts including federal government procurement from an accounting perspective, revenue and cost calculations for various government contract types, and calculations of various rates used by government contractors throughout the lifecycle of a contract.
- AC 412 Government Contract Accounting II (3 Sem. Hrs.)**
Prerequisites: *AC 401 and AC 411*
This course will offer a study of government contract accounting concepts including the financial aspects of contract administration, accounting system requirements, government contract audits, and data analytics in government contract accounting.

- AC 415 QuickBooks Accounting (3 Sem. Hrs.)**
Prerequisite: AC 306 or BUS 242
 A hands-on study of the popular accounting software program, QuickBooks Online. Emphasis is placed on core functions in the accounting and financial management of small to midsized businesses.
- AC 431 Advanced Accounting (3 Sem. Hrs.)**
Prerequisite: AC 323
 A study of advanced accounting concepts including business combinations, partnerships, foreign currency transaction, and other related topics.
- AC 435 Governmental Accounting (3 Sem. Hrs.)**
Prerequisite: AC 322
 An introduction to fund and budgetary accounting for government and not-for-profit organizations in education, health care, and social welfare agencies.
- AC 441 Special Topics in Accounting (3 Sem. Hrs.)**
 To be offered on occasion of student demand or need.
- AC 442 Advanced Auditing and Fraud Examination (3 Sem. Hrs.)**
Prerequisites: AC 322 and AC 401
 An advanced study of auditing theory and practice.
- AC 451 Forensic Accounting I (3 Sem. Hrs.)**
Prerequisite: AC 322
 A study of forensic accounting concepts including fraud, accounting crimes, careers, ethics in accounting, and related topics.
- AC 452 Forensic Accounting II (3 Sem. Hrs.)**
Prerequisite: AC 451
 A study of forensic accounting concepts including litigation, interrogation, evidence, and related topics.
- AC 460 Directed Study/Research in Accounting (3 Sem. Hrs.)**
 A course designed to allow students an opportunity to perform research/directed studies in accounting. Offered at the discretion of the professor with approval of the College Dean.
- AC 461 Internship in Accounting (1 Sem. Hr.) (At least 50 hours of work-based experience required)**
AC 462 Internship in Accounting (2 Sem. Hrs.) (At least 100 hours of work-based experience required)
AC 463 Internship in Accounting (3 Sem. Hrs.) (At least 150 hours of work-based experience required)
Prerequisites: MG 320 or GBA 300; Senior standing, permission of academic advisor, and compliance with College of Business Internship Policies and Procedures
 Designed to provide the student with practical work experience leading to a potential career in either functional or technical areas of the field.
- AC 471 Cost Accounting (3 Sem. Hrs.)**
Prerequisites: AC 323, AC 361 and AC 401
 Cost data analysis and accounting controls in planning and controlling operations and in making special decisions.

Acquisition and Contract Management (ACM)

- ACM 353 Project Management (3 Sem. Hrs.) (Also listed as LSM 353 and MG 353)**
 An examination of the use of critical path method (CPM) and Program Evaluation Review Technique (PERT) on project planning and control.
- ACM 394 Introduction to Acquisition and Contract Management (3 Sem. Hrs.)**
 This course is an examination into contracting with the Federal Government and private sector. Content provides insight and understanding into how government requirements are presented and developed into a contractual instrument negotiated between the government and contractor. Topics addressed include a typical contract, elements comprising a contract, terms and conditions, special provisions, clauses and instructions. Pre-award and post-award documents will be accessed. Navigation of the Federal Acquisition Regulation (FAR) to find specific laws and regulations relative to contracting with the federal government will be explored. An understanding and knowledge of the Uniform Contract Format will be obtained along with the ethical conduct and responsibilities of major contracting participants throughout the acquisition process.
- ACM 395 Acquisition and Contract Management Pricing (3 Sem. Hrs.)**
 This course covers material needed by buyers, price analysts, and contracting officers tasked with obtaining fair and reasonable prices. Students who complete this class will be able to address market forces, the market research process, commerciality issues and cost/price analysis techniques such as the analogy method, parametrics, and learning curves. Students will determine whether a cost or price analysis is appropriate and identify factors that affect price comparability. Direct labor, material and indirect costs will be analyzed and calculated to determine pre-negotiation objectives. Application of a full range of contract pricing techniques will be utilized to determine the appropriate contract adjustment and establish final price or fee adjustments.
- ACM 396 Acquisition and Contract Management Administration (3 Sem. Hrs.)**
 An examination of the management of government contracts in the pre- and post-award phases. The content provides insight into the variety of administrative matters that arise during the life of a contract. Emphasis is given to a consideration of the rights and

responsibilities of the government and contractor.

ACM 397 Acquisition and Contract Management Negotiations (3 Sem. Hrs.)

Prerequisite: ACM 394

An examination of the concepts and techniques of negotiation. Topics covered include strategies and tactics of contract negotiation, preparation for sound negotiation, organization and operation of a procurement team, the relative positions of strength required for successful negotiation, and limitations as imposed by law. Students will participate in mock negotiations using case studies.

ACM 398 Government Contract Law (3 Sem. Hrs.)

Prerequisites: ACM 394, ACM 395, and ACM 396

This course is a study of that specialized area of contract law as applied to contracts with the Federal Government. It will focus on the unique legal aspects of government contracts from the establishment of a requirement that will be fulfilled by contract, through the solicitation and award phases; it will conclude with the management/administration of the contract including a review of the administrative and judicial forums that resolve and adjudicate claims and disputes arising under the contract.

ACM 400 Advanced Acquisition and Contract Research/Project (3 Sem. Hrs.)

Prerequisites: ACM 394, ACM 395, ACM 396, ACM 397, and ACM 398

This course allows students the opportunity to implement the knowledge and skills gained in prior prerequisite coursework. This class prepares the students to be able to apply the knowledge gained in real world situations in the contracting environment with the creation of contract components. The study consists of a series of individual and group research projects which build upon material presented within the ACM curriculum.

ACM 461 Internship in Contract Management (1 Sem. Hr.) (At least 50 hours of work-based experience required)

ACM 462 Internship in Contract Management (2 Sem. Hrs.) (At least 100 hours of work-based experience required)

ACM 463 Internship in Contract Management (3 Sem. Hrs.) (At least 150 hours of work-based experience required)

Prerequisite: MG 320 or GBA 300; compliance with College of Business Internship Policies and Procedures

The internships in the field of Acquisition and Contract Management are designed to provide the student with practical work experience leading to a potential career-field in business.

Adult Degree Program (ADP)

ADP 301 Adult Degree Theory and Practice (3 Sem. Hrs.)

Prerequisite: Permission of Instructor Required

This course will focus on academic and personal issues unique to adult re-entry students, with emphasis on the university services available to nontraditional students. It will also provide students information regarding the concept of prior learning assessment and how to effectively document prior learning gained from work-place experience, training programs, military training, and certification programs.

Advanced Manufacturing Management (AMM)

AMM 301 History of Manufacturing/Industry 4.0 (3 Sem. Hrs.)

This course explores where we've been versus where we're going in manufacturing process technology and its strategic management. Topics covered include the history of manufacturing (from the age of the artisan through the first industrial revolution, mass production, automation, and computerization), the current fourth industrial revolution (Industry 4.0), and the economic, social, and political ramifications of this new industrial age.

AMM 302 Manufacturing Materials and Processes (3 Sem. Hrs.)

The fourth industrial revolution (Industry 4.0) is being led by innovations in manufacturing processes and new product materials. This course provides an overview of the core manufacturing processes used in today's factories plus the newer processes and materials that are revolutionizing the manufacturing sector. Topics covered include the identification, application, and structure of both metallic and nonmetallic materials, mechanical and thermal material properties, traditional manufacturing processes, and advanced manufacturing technologies (including additive manufacturing). This course also includes lab activities and manufacturing facility tours that provide experiential learning opportunities in the technologies introduced.

AMM 400 The Technologies of Industry 4.0 (3 Sem. Hrs.)

Industry 4.0 is the term used to describe today's current economic paradigm, where value creation results from the management and strategic use of data rather than just resources and business processes. This course explores the innovative technologies used to collect, track, and analyze "big data" for the purposes of optimizing operations and creating value. Topics covered include Blockchain, Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning, Cybersecurity, and others.

Aerospace Systems Management (ASM)

ASM 470 Introduction to Aviation Management (3 Sem. Hrs.)

Prerequisite: Department approval / Crosslisted with MG 470

This course provides an orientation to aviation management and its career opportunities. Topics include the history of significant events and accomplishments in the evolution of aviation and the related attempts to move through air and space.

ASM 471 Aviation Law (3 Sem. Hrs.)

Prerequisites: (BUS 263 or GBA 311); and MG 470 / Crosslisted with MG 471

This course covers the legal structure of aviation including federal, local, and state statutes, contracts, insurance and liability, regulatory statutes and specific case law.

ASM 472 Aviation Safety and Security (3 Sem. Hrs.)

Prerequisite: MG 470 / Crosslisted with MG 472

This course focuses on problems and issues of aviation safety and security including aircraft accidents, their cause, effect and the development of safety and security programs and procedures.

ASM 473 Air Traffic Control Fundamentals (3 Sem. Hrs.) (Special Course fee)

Prerequisite: *MG 470 / Crosslisted with MG 473*

This course offers air traffic control procedures, facilities, center, and operations. Other topics covered are theory of radar operation and air traffic separation using computer-based ATC radar simulators.

ASM 474 General Aviation Management (3 Sem. Hrs.)

Prerequisites: *(BUS 275 or MG 346); and MG 471 / Crosslisted with MG 474*

This course provides an overview of general aviation and its impact and interaction with the total aviation industry and includes a study of the various users, the suppliers and service organizations, the aircraft and facilities, maintenance management, and regulatory framework.

ASM 475 Aviation Weather Management (3 Sem. Hrs.)

Prerequisite: *MG 470 / Crosslisted with MG 475*

This course focuses on weather as it applies to the operation of aircraft with emphasis on observation of weather elements and interpretation of flight planning weather information; DUATS, WSI services.

ASM 476 Federal Aviation Regulations (3 Sem. Hrs.)

Prerequisite: *MG 471 / Crosslisted with MG 476*

This course is a study and review of Federal Aviation Regulations CFR 14 Parts 43, 91, 121, and 135 as they pertain to management of airports, charter services, certificated air carriers, and general operating and flight rules.

ASM 477 Airport Management (3 Sem. Hrs.)

Prerequisite: *MG 474 and MK 331 / Crosslisted with MG 477*

Practices in management of a civil public airport, including organization, functions, operations, sources of revenue, funding, facility maintenance, and administration.

ASM 478 Aviation Management Internship (3 Sem. Hrs.)

Prerequisite: *Department approval and Senior Standing / Crosslisted with MG 478*

Practical on-the-job training under supervision with aviation agencies. Written reports are required by designated faculty supervisors.

ASM 479 Aviation Maintenance Management (3 Sem. Hrs.)

Prerequisites: *MG 470 and MG 474 / Crosslisted with MG 479*

This course provides a study of the basic functions, operations, and importance of aviation maintenance in a comprehensive management context. Covers maintenance fundamentals, technical support, maintenance and material supports, oversight functions, human factors in maintenance, and the art of trouble shooting. Students will have a liaison with an aviation maintenance facility to observe management operations.

ASM 481 Spacecraft Environments (3 Sem. Hrs.) / Crosslisted with MG 481

This course introduces the beginning aerospace-aviation systems management student to the natural and operational phenomena that affect spacecraft systems operating in near Earth and planetary orbits. Emphasis is placed on those environmental factors which are major considerations in the design and operation of space systems. The natural factors treated include the effects of high vacuum, microgravity, the magnetosphere, Solar heating, particle radiation, atmospheric drag and Earth oblateness. The effects of the Sun on the upper atmosphere and on the magnetosphere will be outlined. Hazards to orbiting spacecraft caused by space debris and unusual Solar and galactic activity will be presented. The operational environment during launch and re-entry which creates severe structural and thermal demands on the spacecraft will be examined.

ASM 482 Mission Planning and Control (3 Sem. Hrs.) / Crosslisted with MG 482

This course addresses the concepts of space mission conceptualization, planning, communications, and control while operating in near Earth and planetary orbits. Previous mission planning from NASA missions such as those used during International Space Station, Space Shuttle, Project Apollo and other sources will be utilized as well as un-crewed missions such as the Mars Perseverance Rover. Students will develop and simulate a typical mission in a team environment, including communications and data management utilizing a simulated world-wide deep space network using ZOOM. The team mission will be published as part of the class.

ASM 483 Space Law and Treaties (3 Sem. Hrs.) / Crosslisted with MG 483

This course will address an overview and the basics of space law and treaties, especially as it pertains to commercial space endeavors. Included will be review of commentaries, definitions and national legislation from 14 countries including among others: France, Korea, Italy, Netherlands, Australia, Austria, Russia, Japan, Norway, Kazakhstan, Sweden, Spain, UK. The course will offer a general and systematic collection of basic legal documents that will be a required tool for researchers and practitioners. The first part of the course will address principal legal instruments--the so-called 'classical instruments'--elaborated within the United Nations, Principles adopted by the General Assembly, including relevant notes and commentaries. The second part deals with national legislation specifically concerning outer space issues, such as establishing a 'base' on an extraterrestrial body (asteroid), moon, or planet.

ASM 484 Space Exploration Strategies (3 Sem. Hrs.) / Crosslisted with MG 484

This course will address an overview and the details of how the space exploration industry has changed over the last few decades. Beginning at the end of the Apollo moon program, attention shifted to the extreme high costs of space launches and particularly the costs per pound of payload (e.g. \$\$/lb to low Earth orbit). NASA sold the Space Transportation System, STS as a major step forward to lowering costs. However, the Shuttle was never able to achieve the required and/or projected launch rates (equal to or greater than 1 mission per month) lowering costs was the non-reuse of space launch hardware. Of late, these "dreams" are being realized by space entrepreneurs such as Elon Musk with the reusable Falcon 9 rocket. Even greater savings are around the corner with the SpaceX "Starship". This course will address all of the important "game changing" strategies, the people, and the newest space launch

hardware and methodologies.

- ASM 485 Aircraft Propulsion Systems (3 Sem. Hrs.) / Crosslisted with MG 485**
This course entails study of aircraft propulsion systems ranging from two-cycle piston engines to high performance 'scram jets'. Attention will focus on the design, operation, and performance differences and the evolution of aircraft engines since the early 1800's. Students will learn the advantages and disadvantages of the various engine types and how these parameters govern their application to specific aircraft types and performance engines. Elementary performance calculations will be presented and contrasted. Overall operations and maintenance of engines will likewise be addressed. A systems management light will be cast on the subject to include fixed and variable operating costs, performance, reliability, and maintenance.
- ASM 486 Rocket and Spacecraft Propulsion (3 Sem. Hrs.) / Crosslisted with MG 486**
This course entails the study of rocket and spacecraft propulsion systems ranging from monopropellant thrusters, solid propellant rocket motors (SRMs) to the latest high performance Methane-LOX engines used on the SpaceX "Starship". Attention will focus on the design, operation, and performance differences and the evolution of rocket engines since the early 1900's. Students will learn the advantages and disadvantages of the various engine types and how these parameters govern their application to specific mission types and performance regimes. Elementary performance calculations will be presented and contrasted. A life-cycle cost approach will be employed to include development, fixed, and variable operating costs and performance. Overall operations and maintenance of engines will likewise be addressed. A systems management light will be cast on the subject to include fixed and variable operating costs, performance, reliability, and maintenance. Potential future systems such as ion, nuclear, and even 'warp drive' propulsion systems will also be addressed.
- ASM 487 Aviation Risk Management (3 Sem. Hrs.) / Crosslisted with MG 487**
This course is a study of risk management techniques for both aircraft and spacecraft missions. Included will be development of a rational and consistent methodology for identifying and mitigating flight risks based on human, software, hardware, and environmental factors. Formal risk management planning will be addressed and both qualitative and quantitative methods will be employed and contrasted. Formal Risk Management Planning will be taught and evaluated for effectiveness. A systems management approach will be employed and will encompass identification of all resources available to pilots and space crews as well as managers where applicable. Risk avoidance will be stressed. Quantitative software applications such as Palisades @Risk will be evaluated for flight applications. A formal Risk Management Plan (RMP) will be developed for typical private, commercial, and space mission applications.
- ASM 488 Aircraft Systems and Flight Engineering (3 Sem. Hrs.) / Crosslisted with MG 488**
This course entails study of the theory, components, and practical applications of systems in simple glider aircraft up to advanced turboprop, turbojet, and turbofan aircraft. It examines electrical, turbine engines, lubrication and cooling, and other systems. For spaceflight, contrasts will be made between the latest Boeing and SpaceX crew capsules to be used for near Earth, Lunar, and even interplanetary space exploration and former crewed spacecraft such as the Shuttle and Apollo. Systems concepts, makeup, and operations will be reviewed.
- ASM 489 Aviation and Space Human Factors (3 Sem. Hrs.) / Crosslisted with MG 489**
This course addresses the study of human factors associated with both aircraft and spacecraft flight within the atmosphere and in space. For aircraft pilots, the typical effects are studied such as altitude (low oxygen, hypoxia), gforces, disorientation, fatigue, etc. In space, humans suffer from effects like weightlessness, motion sickness, radiation and more. These phenomena are explored along with their detriments to both normal bodily functions and abilities to perform required technical maneuvers and other flight control commands. Cognitive effects are also addressed in both environments along with short and long term effects. Recent studies encompassing the yearlong stay of astronauts on the International Space Station (ISS) will be reviewed in the context of this course.
- ASM 490 Aerodynamics and Flight Performance (3 Sem. Hrs.) / Crosslisted with MG 490**
This course is a study of fundamental aerodynamics as it pertains to flight forces such as lift, drag, thrust, etc., as well as, how these characteristics of airfoils and aircraft shapes and structures affect the craft's performance. Differences between atmospheric and space flight will be addressed and how allowances are made in design and operations. Bernoulli's principle affecting the creation of lift used to counter 'weight' will be explained. Performance where thrust used to counter drag will be addressed. Newton's basic laws of motion will be explored and applied to both aircraft and spacecraft. The importance and practice of sub-sonic and super/hyper sonic wind tunnel testing is included. Various aspects of flight performance will be addressed.
- ASM 491 Commercial Space Enterprises (3 Sem. Hrs.) / Crosslisted with MG 491**
This course is a study of the business, economics, physical operations, and the paper-train involved in conducting space launch operations including launch site preparation and maintenance, range safety, FFA permits to launch, existing range requirements, payload assembly, transportation of launch vehicle components and assembly, checkout and testing, personnel training and certifications, etc. Also addresses the economic side of commercial space operations, investments, and funding sources. Case studies will be employed and strawman mission planning and ROM cost documentation will be developed for specific missions. MicroSoft Project scheduling and tracking (including costs) will be introduced.

Art (AR)

- AR 300 Art Studio in Critique (3 Sem. Hrs.) (Lab fee)**
Prerequisite: Art major or minor or permission of instructor
This course is designed to enable the student to produce works in visual art making use of personal innovations, carefully considered form, techniques, and materials. Skills in art analysis and criticism will be used regularly. Issues and theories regarding the use of mixed media and non-traditional media and skills in art analysis and criticism will be used regularly. This course involves a significant amount of criticism of historical and contemporary art works. Students will define their creative projects in a written statement. This statement will be discussed and possibly modified. A body of work will be created. Processes and safety issues related to materials is emphasized. This course is to be taken the first semester of the student's program.

- AR 301 Painting (3 Sem. Hrs.) (Lab fee)**
This course includes painting theory and techniques and a study of the history of painting. Students utilize various media, tools and methods for painting to experiment with many aesthetic styles including knowledge of various art historical and contemporary ideas. Students critique, justify, and present choices in the process of painting from conceptualized image to finished art work. Museum visits and critiques will be included. Professional material processes and safety issues related to the materials is also emphasized.
- AR 302 Adobe Photoshop Essentials (3 Sem. Hrs.)**
Prerequisite: Art majors require permission of their advisor
This course intends to build operational skills in the software Adobe Photoshop for students needing a multimedia elective or as a course option in the Educational Studies program. Art majors may take this course as a review of these skills with permission of their advisor.
- AR 303 Adobe Illustrator Fundamentals (3 Sem. Hrs.)**
Prerequisite: Art majors require permission of their advisor
This course intends to build operational skills in the software Adobe Illustrator for students needing a multimedia elective or as a course option in the Education Studies program. Art majors may take this course as a review of these skills with permission of their advisor.
- AR 304 Typography (3 Sem. Hrs.) (Lab fee)**
Typography is the visual design of language and is an essential skill for graphic designers. This course explores the history of typeface design, terminology, and its evolution in the digital domain. Emphasis is placed on developing increasing knowledge of typography and principles of design to create effective visual communication using industry standard software. Students experiment with typographic form and principles of design to product static and kinetic typography. Students can apply skills learned in this class in other areas including web design, user interface design, and motion graphics.
- AR 305 Concepts in 3D Design (3 Sem. Hrs.) (Lab fee)**
An advanced course focused on the formal element of design and how they work with and are applied in a three dimensional manner. Topics include geometric solids, architectonic organization of space, light and shadow, relief, the modular unit, motion, form and structure in nature. Applications to packaging, architecture, sculpture, environmental graphics and game design. Investigation of the relationship between material and form.
- AR 306 Concepts in 2D Design (3 Sem. Hrs.) (Lab fee)**
A blended lecture and practicum-based course focused on the formal elements of design and how they work with and are applied in a two dimensional manner. A variety of 2D design concepts and tools are used to develop visual literacy and deepen appreciation of the role of design in art and culture. Students create projects that explore elements and principles of design and gestalt theory, while developing fluency in the handling of media, and an increased awareness of craftsmanship. Lectures and critiques cultivate verbal communication skills to foster a facility with the language of art and design, and basic computer skills are introduced in the creation of an online portfolio.
- AR 307 Advanced Typography (3 Sem. Hrs.)**
Prerequisite: AR 304
In this course, students explore issues of typographic form, history, and personal expression. The goal is to broaden typographic exploration and refine the craft of typography. It focuses on the creative process, from concept to application. Students will have the creative freedom to explore new directions, develop typographical solutions, and use unconventional methods and materials. All projects created are geared toward portfolio presentation.
- AR 310 Fine Arts Connection (1 Sem. Hr.) (Lab fee)**
(Education or Art Majors Only.) This course is an integrated fine arts course that assists students in acquiring the knowledge to use the visual arts, music, and creative movement in developmentally appropriate ways in regular classroom instruction.
- AR 311 Landscape Painting and Drawing (3 Sem. Hrs.) (Lab fee)**
Prerequisite: AR 301
This course looks at the environment as a subject for drawing and painting in a variety of media. It is a direct study from nature.
- AR 312 Figure Drawing (3 Sem. Hrs.) (Lab fee)**
This course places emphasis upon rendering the human figure in multiple mark making media. Students critique, justify and present choices in the process of drawing the human figure from conceptualized image to finished art work. Students utilize various tools and methods to experiment with many aesthetic styles for rendering the human figure including knowledge of various art historical and contemporary ideas for this exploration. Professional materials and safety issues related to the materials processes is emphasized.
- AR 314 Topics in Watercolor (3 Sem. Hrs.) (Lab fee)**
Students will use transparent and opaque water color techniques and a variety of subject matter to become more proficient as painters.
- AR 315 Topics in Ceramics (3 Sem. Hrs.) (Lab fee)**
This course is an introduction to basic ceramic techniques with emphasis on hand-constructed ceramics. The course will include a study of the history of ceramics from prehistory to modern times. Students utilize various tools and methods and knowledge of glaze chemistry and more to experiment with many aesthetic styles including knowledge of various art historical and contemporary ideas. This course is an exploration of sculptural media, particularly clay and terra cotta. Students critique, justify, and present choices in the process of making ceramic art from conceptualized vessel or structure to finished art work. Professional materials processes and safety issues related to the materials processes is emphasized.

- AR 317 Ceramics Handbuilding (3 Sem. Hrs.) (Lab fee)**
This course is an exploration of sculptural media, particularly clay and terra cotta.
- AR 318 Intermediate Wheel Throwing (3 Sem. Hrs.) (Lab fee)**
A further development of vessel and sculptural concepts using wheel throwing techniques. The course expands on the techniques learned in AR 315 and further introduces the elements of art through the making of ceramic form. The class progresses beyond basic throwing techniques to intermediate throwing skills, various forming and embellishing techniques both on the wheel and subsequent to throwing, colored slip work, glaze work, and the firing of kilns. Students work towards development of individual creative expression. Includes presentation of historical, cultural and contemporary trends in ceramics.
- AR 322 Intermediate Handbuilding (3 Sem. Hrs.) (Lab fee)**
This course will further develop the basic handbuilding techniques covered in AR 317. Techniques will include the processes of pinching, stiff and soft slab building, coiling as well as modeling techniques. Approaches will include sculptural applications as well as the formation of vessels. While the process of building with clay will be at the core of this course, an awareness of ceramic history, contemporary ceramic art, conceptual ideas, and other concerns will be included as well. The ceramic process, including glazing firing, and timing will be of utmost concern as we learn to understand the ceramic material. Includes presentation of historical, cultural and contemporary trends in ceramics.
- AR 331 Advanced Photography (3 Sem. Hrs.) (Lab fee - course requires the student to purchase supplies in addition to the lab fee)**
Advanced theory and practice in pre-and post-production photography with emphasis on experimentation with the newest software and hardware related to technologies in the digital photography field in pre and post production of images. Students critique, justify, and present choices in the process from conceptualized image to finished art work. Students utilize various tools and methods to experiment with many aesthetic styles including knowledge of various art historical and contemporary ideas in photography. Professional processes and safety issues related to materials processes is emphasized.
- AR 333 Graphic Design (3 Sem. Hrs.) (Lab fee)**
Prerequisite: AR 303
Processes from visualization through finished design will be covered while exploring problems in commercial and fine arts through visual hierarchy, layout, typography, and real world timetable. Students actively engage graphics as strategic medium for experimentation, idea generation, problem solving and communication. Design is studied in the context of aesthetic, cultural, historical and critical issues. Students learn essential software and hardware techniques in their exploration both as tools and as a medium for evolving designers.
- AR 336 Advanced Microscopy and Digital Imaging (3 Sem. Hrs.) (Lab fee) (Also listed as BI 336)**
Prerequisite: 8 semester hours of lab-based sciences
This course is designed to enable the student to produce works in digital photography through the use of various photomicrographic techniques including ordinary light, phase contrast, electron microscopy, and digital image analysis. The course will include criticism, and a body of work will be required.
- AR 338 Digital Imaging (3 Sem. Hrs.) (Lab fee)**
Prerequisite: Art major or minor, or permission of instructor
This course is designed to enable the student to produce works in graphic art making use of personal innovations, carefully considered form, techniques, and materials. Skills in art analysis and criticism will be used regularly. Students will define their final creative project in a written statement. This statement will be discussed and possibly modified. A body of work will be created.
- AR 341 Visual Culture (3 Sem. Hrs.)**
(Fulfills General Education Area II Fine Arts or Humanities)
"Visual Culture" studies recognize the predominance of visual forms of media, communication, and information in the postmodern world. "Visual Culture" intersects with the notion of "mediasphere" in mediology, the study of media systems and media as a system. This course teaches strategies for analyses and interpretation of the increasing visualization of contemporary culture with emphasis on building specific visual and verbal skills for observing, analyzing, describing and critiquing visual imagery from a range of diverse theoretical perspectives.
- AR 342 Art of the Ancient Americas (3 Sem. Hrs.)**
Focusing on the period before the European conquest, this course explores the art and archaeological record of the Americas' aboriginal cultures and societies in sculpture, architecture, ceramics and paintings. The goal is to understand the aesthetics, philosophy and social historical and religious contexts of the visual arts and speak to the function of these artworks as ideological statements.
- AR 343 Renaissance Art History (3 Sem. Hrs.)**
(Fulfills General Education Area II Fine Arts or Humanities)
This course covers the history of art from the Early Renaissance through the first part of the 19th century including the Renaissance, Mannerism, Baroque.
- AR 353 History and Practice of Graphic Design (3 Sem. Hrs.)**
An introduction to the history of graphic design from the dawn of writing until today, including the development of handwriting, typefaces, and books; Arts and Crafts and the private press; posters, printing history, and history of advertising, digital design and typography.
- AR 360 Drawing and Design (3 Sem. Hrs.)**
Theory and practice in drawing and design with emphasis on experimentation, skill building, portfolio building and critique. Students utilize various tools and methods to experiment with many aesthetic styles including knowledge of various art historical and contemporary ideas in drawing and design.

- AR 401 Advanced Figure Drawing (3 Sem. Hrs.) (Lab fee)**
Prerequisite: AR 312
 This course is a continuation of Figure Drawing, building on the techniques learned in AR 312 to create a finished product.
- AR 403 Materials and Techniques of Painting (3 Sem. Hrs.) (Lab fee)**
 A practicum-based course that explores different painting techniques and concepts, and alternative painting surfaces. Includes presentation of historical, cultural and contemporary trends in painting.
- AR 405 Interface Design (3 Sem. Hrs.) (Lab fee)**
 This course focuses on developing an understanding of the functional design of apps, websites, and interactive experiences from a visual and logistical perspective. It introduces students to theories of human computer interaction as well as basic principles of interface design, prototyping, visual language, and responsive design. Students will use software such as Adobe Experience Design and related Adobe Creative Cloud programs to build a user experience from the ground up.
- AR 406 Multimedia Production (3 Sem. Hrs.) (Lab fee)**
 Learn the basics of operating video equipment, editing, and motion graphics software. Students are instructed on the three stages of multimedia project creation. In pre-production, students learn the basic principles of story development, storyboarding, scheduling, and budget planning. Students shoot short video stories and edit those stories together using Adobe Premiere and After Effects. As a participant in this course, students are expected to upload videos to the Internet. Skills acquired in this workshop have applications in broadcast journalism, documentary film, and transmedia storytelling. Visual content delivery methods, in both web and social media, are explored.
- AR 407 Advertising Design (3 Sem. Hrs.)**
 Students design unique and creative ads for their portfolios. Focus is on producing professional work that demonstrates strong concepts, engaging visuals, as well as interesting headlines and body text. Assignments consist of single ads, as well as ad campaigns. Student also analyze and improve existing ads that lack effective communication and creativity. Lectures include history of advertising, how to approach different generations, personal perceptions, the designer's responsibility in advertising, the role of social media in advertising, and how advertising can lead social change.
- AR 408 Printmaking (3 Sem. Hrs.) (Lab fee)**
 This course is a development of techniques in various print media. Students critique, justify, and present choices in the process of printmaking from conceptualized image to finished art work. Students utilize various tools and methods to experiment with many aesthetic styles including knowledge of various art historical and contemporary ideas related to multiple printing methods. Professional materials processes and safety issues related to the materials is emphasized.
- AR 411 Narrative Painting and Drawing (3 Sem. Hrs.)**
 A practicum-based course that explores narrative, symbol and metaphor as subjects in painting.
- AR 413 Portrait Drawing and Painting (3 Sem. Hrs.) (Lab fee)**
 Students will use a variety of media to develop skills in portraiture.
- AR 416 Glaze Chemistry and Kiln Design (3 Sem. Hrs.) (Lab fee)**
 An intensive, blended lecture and practicum-based study focused on the science behind the ceramic materials and glazes. The course will provide information and science to help each student effectively utilize glaze materials in ways that will enhance and improve their individual practice. Students will also learn how to effectively process local clays and develop clay bodies from raw materials. This course also covers kiln design and maintenance, ceramic surfaces, glaze calculations and firing techniques as well as studio practices and safety. Students will be asked to apply these concepts in the ceramics studio as part of their coursework.
- AR 420 Art Studio (3 Sem. Hrs.) (Lab fee)**
Prerequisite: Art major or minor or permission of instructor
 This course is designed to enable the student to produce works in visual art making use of personal innovations, carefully considered form, techniques, and materials. Skills in art analysis and criticism will be used regularly. Students will define their creative projects in a written statement. This statement will be discussed and possibly modified. A body of work will be created.
- AR 421 Sacred Art in History (3 Sem. Hrs.) (Also listed as RE 421)**
 This course explores the relationships between art and religion bringing theories of religious and aesthetic experience together. It gives an overview of the history of sacred art worldwide and it introduces students to religious functions of contemporary art. The course concentrates on the ways in which sacred and spiritual beliefs influence the creation of works of art using various cultures from around the world and throughout history. Students learn to understand aesthetic experiences with critical reflection and explain it to others.
- AR 422 Alternative Firing Processes (3 Sem. Hrs.) (Lab fee)**
 An intensive, blended lecture and practicum-based study focused on the history and technique of alternative firing processes. The course will provide information and science to help each student learn a variety of atmospheric and alternative firing processes including raku, naked raku, luster fuming and pit firing. Students will be asked to apply these concepts in the ceramics studio as part of their coursework.
- AR 423 History of Modern Art (3 Sem. Hrs.)**
 This course covers the post-impressionist period through 1945. Students understand how present and past responses to the major styles of art history developed and theories of criticism from this period developed. Students understand how our present responses based on knowledge of artist's life experiences and past audience experiences developed. Students analyze ways that visual components and cultural associations suggested by images influenced ideas, emotions, and actions in society at the time.

- AR 424 Late Modern Art History (3 Sem. Hrs.)**
This course covers 1945 to present. Students understand how present and past responses to the major styles of art history developed and theories of criticism from this period developed. Students understand how our present responses based on knowledge of artist's life experiences and past audience experiences developed. Students analyze ways that visual components and cultural associations suggested by images influenced ideas, emotions, and actions in society at the time.
- AR 426 Critical Theories of Today's Art (3 Sem. Hrs.)**
Critical theory looks deeper in to the given art object. It is a way of thinking about and looking at and even making art that is not simply affirmative, but goes beyond generalities to the reception and interpretation of art with regard to context. Context is the economic, religious, institutionalized, political, educational and personal practices of any particular culture. Issues of how are the arts responding to science and technology, new trends in art and the socio-cultural issues demanding art attention today will be discussed. This course will focus on art being made today in a world-wide culture context.
- AR 435 Advanced Graphic Design (3 Sem. Hrs.) (Lab fee)**
Prerequisite: ART 333
Graphic design is for the purpose of communication. Students mature strengths in conceptual thinking and formal experimentation and develop languages of design that reflect their own artistic and cultural identities while communicating to various audiences. Projects are created using a variety of relevant design industry software and hardware and presented in a variety of media.
- AR 440 Digital Animation (3 Sem. Hrs.) (Lab fee)**
This course is designed for students interested in 2D and 3D animation. Topics include concepts and techniques used for creating motion graphics, animated films, and special effects. Students are introduced to Adobe After Effects and 3D features of Maya: modeling, animation, texture, lighting, rendering, expressions, dynamics and workflows. Students gain experience by following class examples and completing assignments. Students in this course create 2D and 3D animation projects intended to build their portfolio.
- AR 442 Special Topics in Art (1-3 Sem. Hrs.) (Lab fee)**
This course will be offered on occasion of student demand or need.
- AR 443 Art Entrepreneurship (3 Sem. Hrs.)**
This course prepares the student to take the next career step, whether they are going into the job market as a professional artist, looking for representation, or continuing their education at the graduate level. Students will explore the various opportunities for artists in a variety of fields by individual interviews and class visits from/to working professionals. Emphasis will be placed on mentorship, business practices and self-promotion.
- AR 448 Collaborative Multimedia (3 Sem. Hrs.) (Lab Fee)**
Transmedia storytelling is the practice of designing, sharing, and participating in a cohesive story experience across multiple traditional and digital delivery platforms - for entertainment, advertising and marketing, or social change. An interactive narrative offers a pre-specified story or choice to the audience, allowing them to influence the plot. In this course, students work in groups to develop and deliver interactive narratives and transmedia stories using new technologies and distribution platforms. Students consider a wide range of production techniques including writing, sound design, film, photography, theatre, art and new media. Students work in teams to design a strategy for developing an interactive narrative or transmedia story.
- AR 450 Internship in Art (3 Sem. Hrs.) (Lab fee)**
This course is an internship program in which the student will receive training with a commercial enterprise relating to his or her area of experience.
- AR 451 Internship in Art P-12 (6-12 Sem. Hrs.) (Teaching Internship fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.
- AR 454 Materials and Methods of Teaching Art in P-5 (3 Sem. Hrs.) (Lab fee)**
Prerequisite: Admission to the Teacher Education Program
Field experience is required. Students will study the unique dynamics of teaching and assessing a comprehensive arts education to Pre-K – 5th grade level children. Students will examine how learning about art relates to adolescents' perception, cognition, questioning, and investigation about art. Students will study multi-cultural approaches to teaching art. Students will study contextual art criticism. Students will learn how to find and develop art resources for the classroom. Students will learn how to use the integration of other subjects into art thinking and into the creation of art. Students will learn methods for introducing aesthetics in educational settings. Students will be able to develop age appropriate curriculum that is either media centered or curriculum that is theme centered that includes multiple forms of student evaluation and self-evaluation which allows for student growth and teacher reflection. Students understand methods and materials and the processes necessary to use them that are age-appropriate and safe for the classroom. Students will learn to gather classroom context to create lesson plans that build on student interests and aptitudes. Historical foundations of art education are addressed to understand ways that art has been presented in the classroom over time compared to multiple ways it is taught in classrooms today.
- AR 455 Materials and Methods of Teaching Art in 6-12 (3 Sem. Hrs.) (Lab fee)**
Prerequisite: Admission to the Teacher Education Program
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for

more information. Field experience is required. Students will study the unique dynamics of teaching and assessing a comprehensive arts education to 6-12 grade level children. Students will examine how learning about art relates to adolescents' perception, cognition, questioning, and interpretation processes. Students will pursue inquiry into the relationship between creating and a philosophical investigation about art. Students will study multi-cultural approaches to teaching art. Students will study contextual art criticism. Students will learn how to find and develop art resources for the classroom. Students will learn how to use the integration of other subjects into art thinking and into the creation of art. Students will learn methods for introducing aesthetics in educational settings. Students will be able to develop age appropriate curriculum that is either media centered or curriculum that is theme centered that includes multiple forms of student evaluation and self-evaluation which allows for student growth and teacher reflection. Students understand methods and materials and the processes necessary to use them that are age-appropriate and safe for the classroom. Students will learn to gather classroom context to create lesson plans that build on student interests and aptitudes. Historical foundations of art education are addressed to understand ways that art has been presented in the classroom over time compared to multiple ways it is taught in classrooms today.

AR 460 Special Workshop (3 Sem. Hrs.) (Lab fee)

This workshop focuses on arts and crafts.

AR 461 Sculpture (3 Sem. Hrs.) (Lab fee)

This course is a special workshop in sculpture. It looks at advanced exploration in various 3D materials and methods with an emphasis on design and craftsmanship.

AR 465 Portfolio, Exhibition and Art Research (3 Sem. Hrs.) (Lab fee)

Prerequisites: AR 300 and Graduating Senior BA Art Major

This capstone course will familiarize the students with the proper utilization of the art reference books, abstracts, monographs, and indices for the purpose of college writing and research in the content area of art. Students will compile a professional portfolio and hang their senior exhibition.

AR 466 Advanced Portfolio, Exhibition and Art Research (4 Sem. Hrs.)

Prerequisites: AR 300 and Graduating Senior BFA Art Major

Students will compile a professional portfolio and hang their senior exhibition. This course is the culmination of your art education at Athens State University. It is designed to challenge and ultimately broaden your understanding of what it means to be a creative professional. This class is largely self-directed and presents you with an extraordinary opportunity to identify an area of interest and investigate it, using art as the vehicle through which you present your findings in The Student Exhibition in the ACA Gallery.

Athens State Teach (ASTE)

ASTE 303 Steps 1 & 2: Inquiry-Based Teaching & Lesson Design (2 Sem. Hrs.)

(Minimum Grade C Required)

Introduction to STEM teaching as a career. This course emphasizes the theory and practice behind excellent inquiry-based science and mathematics instruction. Topics include standards-based lesson design, behavior management strategies, and various teaching methods that are designed to meet instructional goals and learner outcomes. Fieldwork consists of eleven required experiences, including the planning and teaching of six inquiry-based lessons to students in local elementary or middle schools to obtain first-hand experience with planning and implementing inquiry-based curriculum and high school observations. Science and mathematics classroom are selected both the diversity of the student body and the quality of classroom teachers, who serve as mentors for the Athens State Teach students assigned to them.

Biology (BI)

BI 300 Cells and Genes in the News (3 Sem. Hrs.)

Corequisite: BI 300L

(Fulfills General Education Area III Natural Science)

This course will explore how basic biological principles, such as genetics, cell biology, microbiology, and the scientific method relate to current events, including biotechnology, personalized medicine, and agriculture. Counts as an introductory course for both majors and non-majors.

BI 300L Cells and Genes in the News Lab (1 Sem. Hr.) Corequisite: BI 300 (Lab fee)

BI 301 Cell Structure and Function (3 Sem. Hrs.)

Corequisite: BI 301L **Prerequisites:** Principles of Biology I and II, Introductory Chemistry with lab, or permission of instructor

This course considers molecular organization of basic cellular components, including membranes, nucleic acids, and proteins, and how these are assembled into organelles and other cellular structures. It also explores mechanisms of enzyme and organelle function and coordination.

BI 301L Cell Structure and Function Lab (1 Sem. Hr.) Corequisite: BI 301 (Lab fee)

BI 302 Genetics (3 Sem. Hrs.)

Corequisite: BI 302L **Prerequisites:** Principles of Biology I and II, Introductory Chemistry with lab, or permission of instructor

This course is an up-to-date treatment emphasizing structure, function, and regulation of genes, recombinant DNA techniques and applications, principles and patterns of Mendelian inheritance, and population genetics.

BI 302L Genetics Lab (1 Sem. Hr.) Corequisite: BI 302 (Lab fee)

BI 303 General Ecology (3 Sem. Hrs.)

Corequisite: BI 303L **Prerequisites:** Principles of Biology I and II, or Plant Biology and Animal Biology, or permission of instructor

This course includes the study of extant organisms and how they interact with one another and with their nonliving environments. Interactions are investigated at individual, population, community, and ecosystem levels. Qualitative, quantitative, and theoretical

- aspects of ecology are also discussed.
- BI 303L** **General Ecology Lab (1 Sem. Hr.)** **Corequisite: BI 303 (Lab fee)**
- BI 304** **Diversity and Adaptations (3 Sem. Hrs.)**
Corequisite: BI 304L **Prerequisite: Principles of Biology I**
 An advanced comparison of organismal diversity, including modern classification, development, physiology, and morphology of the eukaryotes. An emphasis will be placed upon the diversity of adaptations that allow organisms to succeed in the face of environmental challenges such as desiccation, gas exchanges, locomotion, and information acquisition using sensory organs.
- BI 304L** **Diversity and Adaptations Lab (1 Sem. Hr.)** **Corequisite: BI 304 (Lab fee)**
- BI 311** **Biodiversity of North Alabama (3 Sem. Hrs.)**
Corequisite: BI 311L
(Fulfills General Education Area III Natural Science)
 This course is designed as an introduction to the diversity of habitats and organisms found in northern Alabama. A broad variety of topics relating to the natural history and adaptations of the various organisms inhabiting this region will be discussed. Field trips are required.
- BI 311L** **Biodiversity of North Alabama Lab (1 Sem. Hr.)** **Corequisite: BI 311 (Lab runs concurrently with lecture) (Lab fee)**
- BI 312** **Biostatistics (3 Sem. Hrs.)**
Corequisite: BI 312L
 This course will explore the collection and analysis of biological data. Topics will include sampling regimes, data organization and visualization, descriptive statistics, statistical tests associated with four primary experimental designs within biology: ANOVA, linear regression, chi-squared analysis, and logistic regression. This course will also address non-parametric approaches to data analysis. Students will visualize and analyze data using R statistical programming language and complete an experiment using one of the experimental designs discussed in class.
- BI 312L** **Biostatistics Lab (1 Sem. Hr.)** **Corequisite: BI 312(Lab fee)**
- BI 314** **Entomology (3 Sem. Hrs.)**
Corequisite: BI 314L **Prerequisites: Principles of Biology I and II**
 This course is an exploration of insects with respect to physiology, behavior, evolution, systematics and diversity, ecology, and economic importance.
- BI 314L** **Entomology Lab (1 Sem. Hr.)** **Corequisite: BI 314 (Lab fee)**
- BI 315** **Fermentation and Microbial Technology (3 Sem. Hrs.)**
Corequisite: BI 315L
 This course will cover the basics of food fermentations and their applications in small scale industry with a focus on the products produced by local companies. The co-requisite lab will emphasize microbial techniques used by food fermenters.
- BI 315L** **Fermentation and Microbial Technology Lab (1 Sem. Hr.)** **Corequisite: BI 315 (Lab fee)**
- BI 320** **Human Nutrition (3 Sem. Hrs.)**
Corequisite: BI 320L
(Fulfills General Education Area III Natural Science)
BI 320/320L may only be used by Biology majors (all options) to fulfill the required Area V natural science elective; it cannot be applied as a Professional Course requirement in the major. This course explores nutrition within the context of human biology. Emphasis is on the relationship of the various classes of nutrients and their biological role in health, growth, development, and disease prevention.
- BI 320L** **Human Nutrition Lab (1 Sem. Hr.)** **Corequisite: BI 320 (Lab fee)**
- BI 336** **Advanced Microscopy and Digital Imaging (3 Sem. Hrs.) (Lab fee) (Also listed as AR 336)**
Prerequisite: 8 semester hours of lab-based sciences
 This course is designed to enable the student to produce works in digital photography through the use of various photomicrographic techniques including ordinary light, phase contrast, electron microscopy, and digital image analysis. The course will include criticism. A body of work will be required.
- BI 342** **Economic Botany (3 Sem. Hrs.)**
(Fulfills General Education Area III Natural Science)
 This course presents important roles that plants have played in the development of civilizations and cultures, past and present. Emphasis is placed on origins of agriculture and domestication of plants, on development of early irrigation and rainfall agriculture civilizations, on importance of plants in religion, medicine, commerce, politics, and war, and on future of plants in relation to man.
- BI 342L** **Economic Botany Lab (1 Sem. Hr.)** **Corequisite: BI 342 (Lab fee)**
- BI 361** **Human Anatomy (3 Sem. Hrs.)**
Corequisite: BI 361L
(Fulfills General Education Area III Natural Science)
 This course considers the structural organization of the major regions of the body, including head and neck, upper and lower limbs, torso, and pelvis. It discusses the form, functions, and interrelations of each of the systems of the body in anatomical context as well as commonly encountered dysfunctions.
- BI 361L** **Human Anatomy Lab (1 Sem. Hr.)** **Corequisite: BI 361 (Lab fee)**
- BI 408** **Bioinformatics (3 Sem. Hrs.)**
Corequisite: BI 408L
 This is a survey course intended to introduce the student to the field of Bioinformatics. It discusses the use of, and concepts behind, current bioinformatics tools in fields such as molecular biology, biochemistry, and phylogenetics.

- BI 408L Bioinformatics Lab (1 Sem. Hr.)** *Corequisite: BI 408 (Lab fee)*
- BI 409 Biochemistry (3 Sem. Hrs.) (Also listed as CH 409)**
Prerequisite: CH 311
 This course is a study of proteins, carbohydrates, lipids, and other important biochemical compounds and their metabolic functions. Enzyme reaction mechanisms and biological oxidations may also be included.
- BI 411 Invertebrate Systematics and Morphology (3 Sem. Hrs.)**
Corequisite: BI 411L Prerequisite: Principles of Biology I and II, or Animal Biology, or permission of instructor
 This is an inclusive and in-depth survey of invertebrate animals covering all phyla from protozoa through echinoderms. Emphasis is placed on morphological structures characterizing each phylum, on a systematic approach taken in each phylum, and on phylogenetic relationships among the various phyla.
- BI 411L Invertebrate Systematics and Morphology Lab (1 Sem. Hr.)** *Corequisite: BI 411 (Lab fee)*
- BI 415 Microbial Diversity and Human Interactions (3 Sem. Hrs.)**
Corequisite: BI 415L Prerequisite: Principles of Biology I or permission of instructor
 A survey of bacteria, archaea, and viruses, with a focus on the relevance of bacteria to the environment and human disease. Lecture will consider bacterial physiology and human immune response while lab will emphasize the culture, identification, and control of microorganisms.
- BI 415L Microbial Diversity and Human Interactions Lab (1 Sem. Hr.)** *Corequisite: BI 415 (Lab fee)*
- BI 420 Field Vertebrate Zoology I: Ichthyology and Herpetology (4 Sem. Hrs.) (Lab fee)**
Prerequisites: Principles of Biology II and BI 303, or permission of instructor
 This is a course in systematic and ecological ichthyology and herpetology. It introduces the diversity of fishes, amphibians, and reptiles, position and content of major groups, their classification, relationships, and basic structure, with emphasis on living representatives, particularly those of the Tennessee Valley region of North Alabama.
- BI 422 Field Vertebrate Zoology II: Ornithology and Mammalogy (4 Sem. Hrs.) (Lab fee)**
Prerequisites: Principles of Biology II and BI 303, or permission of instructor
 This is a course in systematic and ecological ornithology and mammalogy. It introduces the diversity of birds and mammals, position and content of major groups, their classification, relationships, and basic structure, with emphasis on living representatives, particularly those of the Tennessee Valley region in North Alabama.
- BI 423 Histology (3 Sem. Hrs.)**
Corequisite: BI 423L Prerequisites: Principles of Biology I and II
 This course studies the groups of specialized cells called tissues. Tissue organization is examined at all levels, from the whole organ to the molecular components of cells. Histological techniques include tissue culture, fixing and staining, microscopy, and biochemistry.
- BI 423L Histology Lab (1 Sem. Hr.)** *Corequisite: BI 423 (Lab fee)*
- BI 424 Advanced Physiology (3 Sem. Hrs.)**
Corequisite: BI 424L Prerequisite: Principles of Biology I or permission of instructor
 This course explores the functions of living animals and discusses temporary, long-term and developmental changes in an organism's responses to the environment. Topics will include sensory, motor, nervous and endocrine systems; circulation and respiration; the use and acquisition of energy; and the maintenance of fluid, electrolyte and temperature homeostasis.
- BI 424L Advanced Physiology Lab (1 Sem. Hr.)** *Corequisite: BI 424 (Lab fee)*
- BI 425 Developmental Biology (3 Sem. Hrs.)**
Corequisite: BI 425L Prerequisites: Principles of Biology I and II
 This course considers the period of growth and differentiation from fertilization until hatching or birth of an animal or, in plants, germination. Vertebrate and human models will be emphasized. Concepts are explored in terms of cell biology, genetics, and comparative vertebrate anatomy.
- BI 425L Developmental Biology Lab (1 Sem. Hr.)** *Corequisite: BI 425 (Lab fee)*
- BI 427 Parasitology (3 Sem. Hrs.)**
Prerequisites: Principles of Biology I and II
 This is a study of the relationships between parasites and their hosts, with emphasis on vertebrate and human models. Concepts are discussed in terms of systematics, molecular biology, ecology, and evolutionary biology.
- BI 429 Immunology (3 Sem. Hrs.)**
Corequisite: BI 429L Prerequisites: Principles of Biology I and II
 This course examines the evolution, organization, and function of immune systems, with an emphasis on vertebrate and human models. Concepts are discussed in terms of cell biology, genetics, and evolutionary biology.
- BI 429L Immunology Lab (1 Sem. Hr.)** *Corequisite: BI 429 (Lab fee)*
- BI 431 Plant Systematics and Morphology (3 Sem. Hrs.)**
Corequisite: BI 431L Prerequisites: Principles of Biology I and II, or Plant Biology, or permission of instructor
 This course includes an in-depth survey of non-vascular and vascular plants. Emphasis is placed on morphological structures characterizing each division, subdivision, class, and subclass of plants, on a systematic approach taken at each level of taxonomic hierarchy, and on phylogenetic relationships among the various groups of plants.
- BI 431L Plant Systematics and Morphology Lab (1 Sem. Hr.)** *Corequisite: BI 431 (Lab fee)*
- BI 434 Principles of Research Techniques and Labs Skills (4 Sem. Hrs.) (Lab fee)**

Prerequisites: Principles of Biology I and II, and permission of instructor

This course is designed for Athens State students who have been selected as interns for study at The HudsonAlpha Institute for Biotechnology. The selection process is open to all biology majors and is conducted by the staff at HudsonAlpha. Students will work independently on a research project in either DNA barcoding analysis or clinical variant analysis using protein-modeling data. Students will apply lab and data processing skills to projects that will contribute to a larger research effort.

BI 441 Special Topics in Biology (1 Sem. Hr.)

BI 442 Special Topics in Biology (2 Sem. Hrs.)

BI 443 Special Topics in Biology (3 Sem. Hrs.)

BI 444 Special Topics in Biology (4 Sem. Hrs.)

Prerequisite: Permission of instructor

These courses will be offered on occasion of student demand or need. (BI 443 may be used to award credit to SIM in-service teachers who meet the established criteria.)

BI 450 Research Seminar (1 Sem. Hr.)

Prerequisite: Permission of instructor

This course will be offered on occasion of student demand or need. It affords the biology major the opportunity to develop and present results of laboratory and/or field research.

BI 451 Marine Biology (3 Sem. Hrs.) (Lab/Special Course fees)

Corequisite: BI 451L Prerequisite: Principles of Biology I and II

This course is an introduction to salt water and salt marsh environments. This course is offered for students to obtain first hand field experience in marine ecosystems especially on the Gulf Coast. Class lecture content includes the microbial, and planktonic life forms, marine invertebrates, and marine vertebrates around the world, and specifically on the Gulf Coast. Laboratory and field exercises will include sampling, collecting, preserving and identification techniques for specimens on the Gulf Coast using various dichotomous keys for the species observed and collected.

BI 451L Marine Biology Lab (1 Sem. Hr.) Corequisite: BI 451

BI 453 Plant Ecology (3 Sem. Hrs.) (Lab/Special Course fees)

Corequisite: BI 453L Prerequisite: Principles of Biology I and II

This course is designed to provide the student with information about types of plant communities and the various forest types in the Southeastern U.S. Lab and field exercises will include field trips to Wheeler National Wildlife Refuge and/or other suitable forest types, and to the Great Smoky Mountains National Park in East Tennessee, for forest evaluation and treatment of data.

BI 453L Plant Ecology (1 Sem. Hr.) Corequisite: BI 453

BI 456 Materials and Methods of Teaching Biology in the Middle School/High School (3 Sem. Hrs.) (Also listed as CH/GS 456)

Prerequisite: Admission to the Teacher Education Program

This course only applies to the Minor in Education; it will not count as a biology major elective for students in non-education Biology options. This course is intended to enhance the students' abilities to plan, implement, and evaluate instructional activities and to select and use appropriate materials and equipment in the field of secondary science (Biology, Chemistry, General Science). Students will actively participate in demonstration and modeling of strategies and techniques. Emphasis will be placed on the integration of laboratory activities into the curriculum and research-based science pedagogical methods. This will include the use of technology, laboratory management, inquiry teaching, teaching resources, science-thinking skills, and the Alabama science curricula. Does not satisfy requirements for biology/chemistry/general science major, minor, or general studies.

BI 457 AMSTI/Science in Motion Laboratory Technologies for Teachers (3 Sem. Hrs.) (Lab fee)

Prerequisites: Principles of Biology I and II

This course is designed as training for student teachers using the Alabama Mathematics and Science Teaching Initiative (AMSTI) /Science in Motion (SIM) biological laboratory exercises owned by and distributed to public schools in North Alabama by Athens State University. This training will enable the student to use and teach the biological principles within the selected labs in Levels 1, 2, and 3 in the Science in Motion series.

BI 461 Directed Study/Research in Biology (1 Sem. Hr.) (Lab fee)

BI 462 Directed Study/Research in Biology (2 Sem. Hrs.) (Lab fee)

BI 463 Directed Study/Research in Biology (3 Sem. Hrs.) (Lab fee)

Prerequisite: Permission of instructor

These courses will be offered on occasion of student demand or need. May be repeated for credit.

BI 470 Biology Capstone (1 Sem. Hr.)

Prerequisites: At least two of these courses - BI 301/301L, BI 302/302L, BI 303/303L

Students cannot receive credit for both BI 470 and BI 471. This capstone course will provide students with the knowledge and skills to formulate a thesis, do research on the thesis topic, write the thesis, and orally present the findings to the class.

BI 471 Research Thesis Capstone (1 Sem. Hr.)

Prerequisites: At least two of these courses - BI 301/301L, BI 302/302L, BI 303/303L; AND 3 hours of Directed Study/Research in Biology

Students cannot receive credit for both BI 470 and BI 471. This capstone course will provide students with the knowledge and skills to formulate a thesis, do research on the thesis topic, write the thesis, and orally present the finding to the class. This thesis will be based on the student's previous and ongoing Research in Biology.

Children's Advocacy Studies Training – CAST (CA)

CA 301 Perspectives on Child Maltreatment & Child Advocacy (3 Sem. Hrs.)

This course is the introductory course for child advocacy studies. This course covers the history, comparative perspectives, the legal

framework, responses to child maltreatment, the skills necessary to do the work, other pertinent issues pertaining to child maltreatment and child advocacy, and the future. The field of child maltreatment is fraught with controversy. Much of the class focuses on these controversies. The approach of the course will be from a variety of diverse, professional perspectives including the perspectives of a prosecuting attorney versus a defense attorney. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, or other areas where knowledge of child maltreatment and advocating for children might be necessary.

CA 302 Global Child Advocacy Issues (3 Sem. Hrs.)

This course is a core course for child advocacy studies certificate. The purpose of this course is to prepare students to recognize child advocacy issue around the world. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, or other areas where knowledge of child maltreatment and advocating for children will be necessary. Multidisciplinary approaches to advocacy in different countries throughout the world will be presented and discussed.

CA 401 Child Advocacy II: Professional and System Responses to Child Maltreatment (4 Sem. Hrs.)

This course is the third course for child advocacy studies. The purpose of this course is to prepare students to recognize the effects of child maltreatment and apply interventions strategies for children and their families. Multidisciplinary approaches to prevention, advocacy and treatment of child maltreatment survivors will be presented and discussed. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, or other areas where knowledge of child maltreatment and advocating for children will be necessary.

CA 402 Mock Cases and Simulations Practicum (1 Sem. Hr.)

This course is the case examination of mock cases and trials as related to juveniles/children and their families. This course will assist students with learning the MDT process and procedures through mock case reviews, examinations, discussions, and simulations of criminal justice and child advocacy actors and personnel. This course will review the forensic interviewing process for pre-trial and trial procedures as well as law enforcement role in investigation and reporting; police and courts. Students will work with local child advocacy centers as well as other related agencies with the MDT. The purpose of this course is to prepare students to recognize the effects of child maltreatment and apply interventions strategies for children and their families. Multidisciplinary approaches to prevention, advocacy and treatment of child maltreatment survivors will be presented and discussed. The course is designed for students majoring in criminal justice, education, social work, sociology, psychology, nursing, paralegal, or other areas where knowledge of child maltreatment and advocating for children will be necessary. This course focuses on the responses of professionals to allegations of child maltreatment. The purpose of this course is to expand the student's knowledge and skills in identifying, investigating and prosecuting child maltreatment. The course is designed for students who are likely to pursue a profession in which they will be a mandated reporter and knowledge of child maltreatment and advocacy is critical.

Career and Technical Education (CE)

CE 300 Foundations of Technical Education I (3 Sem. Hrs.)

Corequisite: UNV 300ED

A survey course on philosophies and developments in education and training; focusing on adult learning theories and principles.

CE 302 History and Principles of Career/Technical Education (3 Sem. Hrs.)

A historical review of the development of career and technical education including philosophies, ideologies, trends, economic, sociological, and legislative perspectives.

CE 303 Professional Education Communication (3 Sem. Hrs.) (Students seeking the Technical Education: Early Instructor option will take this course)

This beginning education course is designed to facilitate the acquisition of professional attributes, and to improve oral and written communication skills by refining study and research skills, using professional vocabulary, sharing research findings about educational trends and issues, seeking funding for educational programs, sharing information with families, and writing lesson plans. Attributes and dispositions will be articulated, defined, and modeled. These dispositions will be encouraged in oral presentations and collegial interactions. Practice in oral and written language usage will occur through writing and speaking about current educational concerns.

CE 305 Meeting the Needs of Exceptional Career/Technical Education Students (3 Sem. Hrs.)

An exploration of individual differences of students in career and technical education. Students with different socio-cultural backgrounds, abilities, and values; understanding diversity; legislation pertaining to diversity; categories of exceptional students; referral and placement procedures; services; curriculum, instructional, and facility modification and adaptations; and career opportunities are concepts addressed in the course. **Course includes Lee v. Macon "Makes Sense Strategies" training as required by the Alabama State Department of Education.**

CE 306 Introduction to Instructional Design (3 Sem. Hrs.)

Corequisite: UNV 300ED

Introduction to Instructional Design focuses on the design, development, implementation, and evaluation of learning and teaching. Students will develop the necessary pedagogical and technological skills that will facilitate the design and development of instruction using the appropriate tools.

CE 307 IC³ Preparation (3 Sem. Hrs.)

A course based upon The Global Standard 3 (IC³), an internationally recognized standard for digital literacy and reflects the most relevant skills needed in today's academic and business environments. Modules include computing fundamentals, key applications, and living online.

CE 308 Information Design and Visual Literacy (3 Sem. Hrs.)

In this course, students will explore the foundations of Cognitive Load Theory and discover various methods and techniques to help

design efficient and effective teaching and training materials that will limit the amount of load placed on the learner.

- CE 309 Multimedia for Lesson Development (3 Sem. Hrs.)**
This course focuses on the theoretical perspectives of multimedia development and differentiating multimedia for training purposes. The course will also provide hands-on applications with developing multimedia projects for embedding in training and development lessons.
- CE 310 Principles of Early Childhood Education (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
Corequisite: UNV 300ED
This course is designed to provide prospective teachers of young children with the historical, theoretical, and practical issues of early childhood education. Emphasis is on early childhood philosophical and sociological foundations, facets of development, principles of learning, trends and issues, and program models.
- CE 319 Literacy and Literature for the Young Child (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
Emphasis is given to teaching Language Arts and literature to ESL students. This course examines methods and materials for planning, implementing, and assessing developmentally and culturally appropriate language arts and literature curricula for early childhood education. Emphasis will be on developing the process skills for facilitating emergent literacy, early writing, listening, and speaking, as well as teaching language arts and literature.
- CE 322 Basic Principles of ELL Education (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
A course designed to provide all educators the fundamental theories and knowledge about second language acquisition, with an emphasis on instructional methods for teaching English language learners.
- CE 326 Assessment in Early Childhood Classrooms (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
This course examines the goals, benefits, and uses of developmentally and culturally appropriate assessment processes that positively influence children's development and learning. It focuses on the family's significant role in the assessment process. It includes developmental and health screenings, systematic observations, play-based assessments, diagnostic evaluations, documentation of learning, and curriculum and criterion referenced assessments. Strengths, limitations, problems, and the developmental and cultural appropriateness of the selected practices and strategies will be addressed.
- CE 327 Classroom Management in Early Childhood Education (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
This course is designed to provide prospective teachers of young children with a rationale for thoughtful provision of an appropriate environment for effective learning and development in early childhood programs. This course will provide early childhood educators with the factors that influence quality programs in the area of management.
- CE 330 Children's Constructions of Relationships through Arithmetic and Mathematical Reasoning (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
Prerequisites: ED 301, ED 302, and ER 323
Students will examine how young children construct number and mathematical concepts. They will identify and examine developmentally and culturally appropriate techniques, strategies, and materials for teaching young children arithmetic and mathematical concepts. **Five days of Field Experiences are required.**
- CE 400 Children's Play as Symbolic Behavior (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
This course will examine the role of representation in young children's learning, study the child's developing ability to represent what they know about their worlds through play, understand the impact of experience, culture, and social interaction on the ability to represent, as well as allow students the opportunity to explore a range of forms of symbolic representations and develop ideas and strategies to stimulate children's development.
- CE 402 Preschool Curriculum (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this course)*
This course provides a curricula framework of goals and outcomes for young children attending Head Start, preschool, Pre-K and Kindergarten programs that support their growth and development and help teachers and administrators meet state and national standards of high quality in their programming for children. The course builds knowledge about outcomes in nine areas considered essential in preparing children for school success; language development, literacy, mathematics, science, creative arts, social and emotional development, approaches to learning and physical health and development. Students will develop the knowledge and skills to plan for children, implement plans, and assess the progress of children in meeting local, state and national standards. Emphasis is on planning and implementing plans in all domains of learning for all children, including English language learners and those with special needs.
- CE 406 Instructional Design Models and Learning Theory (3 Sem. Hrs.)**
This course is designed to investigate various instructional design models and determine how they integrate with standard theories related to teaching and learning.
- CE 408 Gamification and Advanced Lesson Design (3 Sem. Hrs.)**
Prerequisite: CE 308
This course is designed to introduce concepts and theories behind gamification and its impact on lesson design and development.
- CE 420 Parenting and Community Relations (3 Sem. Hrs.)** *(Students seeking the Technical Education: Early Instructor option will take this*

course)

This course will examine various ways of enhancing the young child's development through promoting positive interrelationships among early childhood educators, parents and others in the community. Using an ecological systems framework, the course builds knowledge of the roles of diverse family structures, cultural identities, stressors and supports, economic circumstances, and community characteristics and resources in facilitating child development. Learners develop skills needed for communicating effectively with families, facilitating parent education, and promoting family involvement with child care setting as well as utilization of community resources. Special emphasis is given to the importance of the role of the educational leader in school-community relations.

- CE 430 Instructional Strategies for Adult Learners (3 Sem. Hrs.)**
A course focused on the development and implementation of instructional strategies and techniques to facilitate adult learning in various settings. Participants will examine and apply models, strategies, and methods for planning and implementing instruction. Instructional approaches, engagement strategies, and management of the instructional environment are explored.
- CE 432 Teaching Career/Technical Education (3 Sem. Hrs.)**
A course on methods, strategies, and techniques for teaching and training in career and technical education.
- CE 433 Learning Resources and Technology in Career/Technical Education (3 Sem. Hrs.)**
A course on selecting, developing, utilizing, and evaluating a variety of appropriate instructional resources, media, and technology for instruction and facilitating online learning.
- CE 434 Course Development and Evaluation in Career/Technical Education (3 Sem. Hrs.)**
A course designed to provide knowledge of the process of developing and evaluating instructional curriculum. Concepts addressed are techniques, procedures, and potential problems in the selection and organization of subject matter and the implementation, facilitation, and evaluation of instruction.
- CE 435 Industrial Health and Shop Safety (3 Sem. Hrs.)**
A survey course on accident prevention and identification of potential safety hazards as they pertain to technical education classes, labs, and business industry settings. The Occupational Safety and Health Administration (OSHA) basic practices of identifying, reducing, eliminating and reporting hazards are introduced and discussed as applicable in educational and business/industry settings.
- CE 436 Career/Technical Information Guidance (3 Sem. Hrs.)**
An introductory course on career/technical guidance. Topics include trends and issues in workforce development, educational and training options, job qualifications and requirements, and sources for continued education and training and occupational information.
- CE 438 Classroom/Laboratory Management & Student Leadership Development (3 Sem. Hrs.)**
A course designed to provide knowledge and application of techniques and procedures used to maintain and manage technical education learning environments, including inventories, and organizational processes. Leadership development through the management and care of various laboratories and equipment is addressed. **Course includes Lee v. Macon "Positive Behavioral Supports" training as required by the Alabama State Department of Education.**
- CE 439 Career/Technical Student Youth Organizations (3 Sem. Hrs.)**
A survey course of procedures for establishing, implementing, and operating informal, formal, and/or co-curricular career/technical student organizations.
- CE 440 Testing and Evaluation in Career/Technical Education (3 Sem. Hrs.)**
A course designed to review traditional methods used to measure and interpret student achievement and to introduce knowledge and skills necessary to select/construct and implement appropriate assessment strategies for career/technical instruction and settings.
- CE 441 Special Topics in Career/Technical Education (1 Sem. Hr.)**
CE 442 Special Topics in Career/Technical Education (2 Sem. Hrs.)
Courses designed to allow students majoring in Technical Education to pursue special projects of interest. Projects undertaken for these courses may be continuations of projects begun in other courses.
- CE 444 Design and Instruction of Online Training (3 Sem. Hrs.) (Cross-listed with ED 308)**
Design and Instruction of Online Training prepares students with knowledge and skills in methods of designing different types of tutorials (print-based, video, multimedia) for online training and learning. Study includes identifying media elements, understanding the media selection process, and media design principles. Students will also explore, design, and create online training materials in accordance with best practices and media design principles.
- CE 445 Functions of the Coordinator (3 Sem. Hrs.)**
A course designed to prepare individuals for organizing, establishing, and administering various programs in career/technical education that are of a cooperative nature.
- CE 448 Assessment in Instructional Design (3 Sem. Hrs.)**
Assessment of Instructional Design focuses on the application and interpretation of theory, research and standards-based effective practices used to design, develop and evaluate distance and blended education experiences. Students will examine different aspects of online teaching (e.g. asynchronous communication, facilitation and feedback) based on research, and apply their learning to online content design. Students will leave the course with a completed online course module that includes content specific activities and an understanding of how to create lessons and assessments that support student exploration of their individual curiosities, educational goal setting, management of learning and assessment of progress.

- CE 450** **Practicum in Advanced Technical Studies (3 Sem. Hrs.)**
CE 451 **Practicum in Advanced Technical Studies (3 Sem. Hrs.)**
CE 452 **Practicum in Advanced Technical Studies (3 Sem. Hrs.)**
 Courses designed to allow students majoring in Technical Education to pursue special projects of interest. Projects undertaken for these courses may be continuations of projects begun in other courses.
- CE 460** **Directed Study/Research Career/Technical Education (1-9 Sem. Hrs.)**
Prerequisite: Permission of academic advisor required
 In-service technical education instructors may earn up to 9 semester hours of credit for directed study/research in Career/Technical Education.
- CE 465** **Instructional Design Capstone (3 Sem. Hrs.)**
Prerequisites: CE 306 and CE 308
 Instructional Design Capstone is the culminating capstone course of the CE instructional design instructor course sequence. In this course, students will apply theory, research, principles, skills and knowledge learned in all previous CE instructional design instructor courses to design and build an entire course inside a learning management system. Students must obtain permission from their academic advisor before enrolling in the course.
- CE 470** **Practicum-Supervised Work Experience (3 Sem. Hrs.)**
CE 471 **Practicum-Supervised Work Experience (3 Sem. Hrs.)**
CE 472 **Practicum-Supervised Work Experience (3 Sem. Hrs.)**
 Courses designed to allow students majoring in Technical Education to pursue special projects of interest in a program area work setting. Projects undertaken for these courses may be continuation of projects begun in other courses.
- CE 483** **Practicum in Teaching and Training (3 Sem. Hrs.) (Also listed as ED 483)**
CE 484 **Practicum in Teaching and Training (3 Sem. Hrs.) (Also listed as ED 484)**
CE 485 **Practicum in Teaching and Training (3 Sem. Hrs.) (Also listed as ED 485)**
 Studies designed to expand teaching/training skills of participants.
- CE 487** **Internship in Technical Education (6-12 Sem. Hrs.) (Teaching Internship fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
 Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

Chemistry (CH)

- CH 302** **Introduction to Forensic Science (3 Sem. Hrs.) (Lab fee)**
Prerequisite: General Education Science requirements
 This course is a basic study of investigation methodology, forensic science techniques and procedures, evidence collection and development, and laboratory techniques. CH 302 may not be used as credit toward a chemistry major or minor.
- CH 311** **Organic Chemistry I (4 Sem. Hrs.)**
Corequisite: CH 311L Prerequisite: General Chemistry I, II
 This course is a basic study of aliphatic and aromatic compounds, their properties, preparation, and reactions, with an emphasis on theory and mechanisms of reaction.
- CH 311L** **Organic Chemistry I Lab (1 Sem. Hr.) Corequisite: CH 311 (Lab fee)**
- CH 312** **Organic Chemistry II (4 Sem. Hrs.)**
Corequisite: CH 312L Prerequisite: CH 311
 This course is a basic study of aliphatic and aromatic compounds, their properties, preparation, and reactions, with an emphasis on theory and mechanisms of reaction. Laboratory includes organic qualitative analysis.
- CH 312L** **Organic Chemistry II Lab (1 Sem. Hr.) Corequisite: CH 312 (Lab fee)**
- CH 314** **Polymer Science (3 Sem. Hrs.)**
Corequisite CH 314L Prerequisite: CH 311
 This course is a study of synthesis, characterization, testing, and reactions of polymers. It includes step-reaction polymerization, ionic chain reactions, free radical chain polymerization, copolymerization, and inorganic polymers, in addition to the effects of additives and fillers.
- CH 314L** **Polymer Science Lab (1 Sem. Hr.) Corequisite: CH 314 (Lab fee)**
- CH 324** **Analytical Chemistry (3 Sem. Hrs.)**
Corequisite: CH 324L Prerequisites: General Chemistry I, II
 Topics covered in this course may include: classical volumetric techniques in chemical analysis, modern methods of chemical separation, and basic instrumentation techniques.
- CH 324L** **Analytical Chemistry Lab (1 Sem. Hr.) Corequisite: CH 324 (Lab fee)**
- CH 330** **Environmental Chemistry (3 Sem. Hrs.) (Also listed as GS 330) (Lab fee)**
 This course is a study of natural chemical processes of Earth and actual and possible effects of humans on natural chemical systems. Environmental problems such as air and water pollution, ozone depletion, and global warming are discussed. The course may also include an introduction to some methods of environmental analysis and pertinent environmental regulations.

- CH 409 Biochemistry (3 Sem. Hrs.) (Also listed as BI 409)**
Prerequisite: CH 311
 This course is a study of proteins, carbohydrates, lipids, and other important biochemical compounds and their metabolic functions. Enzyme reaction mechanisms and biological oxidations may also be included.
- CH 410 Instrumental Analysis (3 Sem. Hrs.)**
Corequisite: CH 410L Prerequisite: CH 324 or permission of instructor
 The theoretical application of modern instrumentation to problems in analytical chemistry is covered in this course. Optical, electrochemical, and other instrumentation techniques are also covered.
- CH 410L Instrumental Analysis Lab (1 Sem. Hr.) Corequisite: CH 410 (Lab fee)**
 The practical application of modern instrumentation to problems in analytical and environmental chemistry is covered in this laboratory course.
- CH 420 Intermediate Inorganic Chemistry (3 Sem. Hrs.)**
Prerequisite: General Chemistry I, II
 This course covers atomic structure, bonding, trends in the periodic table, and coordination chemistry. Topics also may include catalysis, group theory, structure and properties of solids or bio-inorganic chemistry.
- CH 430 Physical Chemistry I (4 Sem. Hrs.)**
Corequisite: CH 430L Prerequisite: General Chemistry I, II, MA 304, and calculus-based Physics II
 This course covers the application of laws of physics and mathematics to study of thermodynamics, equilibria, and kinetics.
- CH 430L Physical Chemistry I Lab (1 Sem. Hr.) Corequisite: CH 430 (Lab fee)**
 This laboratory course includes introduction to working with personal computers and spreadsheet programs.
- CH 431 Physical Chemistry II (3 Sem. Hrs.)**
Corequisite: 431L Prerequisite: CH 430, 420, or permission of instructor
 This course covers the application of the laws of physics and mathematics to the study of quantum chemistry, molecular structure, and spectroscopy. The laboratory includes experience with computer programs pertinent to chemistry.
- CH 431L Physical Chemistry II Lab (1 Sem. Hr.) Corequisite: CH 431 (Lab fee)**
 This lab course serves as the capstone course for the chemistry major. To fulfill requirements for this course, students are required to submit a written project report and make an oral presentation of the report findings.
- CH 441 Special Topic in Chemistry (1-3 Sem. Hrs.)**
Prerequisite: Permission of instructor
 To be offered on occasion of student demand or need. (3 semester hour course may be used to award credit to SIM in-service teachers who meet the established criteria.)
- CH 456 Materials and Methods of Teaching Chemistry in the Middle School/High School (3 Sem. Hrs.) (Also listed as BI/GS 456)**
Prerequisite: Admission to the Teacher Education Program
 This course is intended to enhance the students' abilities to plan, implement, and evaluate instructional activities and to select and use appropriate materials and equipment in the field of secondary science (Biology, Chemistry, General Science). Students will actively participate in demonstration and modeling of strategies and techniques. Emphasis will be placed on the integration of laboratory activities into the curriculum and research-based science pedagogical methods. This will include the use of technology, laboratory management, inquiry teaching, teaching resources, science-thinking skills, and the Alabama science curricula. Does not satisfy requirements for biology/chemistry/general science major, minor, or general studies.
- CH 461 Directed Study/Research in Chemistry (1 Sem. Hr.) (Lab fee)**
CH 462 Directed Study/Research in Chemistry (2 Sem. Hrs.) (Lab fee)
CH 463 Directed Study/Research in Chemistry (3 Sem. Hrs.) (Lab fee)
Prerequisite: Permission of instructor
 These courses will be offered on occasion of student demand or need.

Criminal Justice (CJ)

- CJ 300 Contemporary Criminal Justice (3 Sem. Hrs.)**
 This is an introductory course to discuss the transition from historical criminal justice practices and processes to modern day, contemporary criminal justice. This course will discuss more modern and innovative technologies utilized in the criminal justice system to assist agents and practitioners with apprehension, investigation, and rehabilitation. This course will also discuss each subsystem of the criminal justice system: police, courts, and corrections between 1950 to current day.
- CJ 301 Criminal Justice Process (3 Sem. Hrs.)**
 This course presents an overview of the major steps in the processing of a criminal case in the United States, including pretrial, trial, and post-conviction phases.
- CJ 302 Criminal Law (3 Sem. Hrs.)**
 This course focuses on definitions of crimes to include the specific elements of various criminal offenses. Defenses to criminal conduct also are discussed.
- CJ 307 American Constitutional Law (3 Sem. Hrs.) (Also listed as HY 307 and PO 307)**
 This course examines the text of the nation's primary law and key decisions of the U.S. Supreme Court interpreting certain phrases. Organization and operation of the Court are also covered. This course focuses on separation of powers, federalism, interstate

commerce, taxation, the contract clause and the takings clause. This course provides a foundation in American constitutionalism for students who plan to attend law school or teach social studies in the secondary schools.

- CJ 310 Special Topics in Criminal Justice (2 Sem. Hrs.)**
This course is designed to provide criminal justice students with a diverse wealth of knowledge in introductory type courses that will discuss, examine, and evaluate contemporary topics. This course will allow students to utilize innovative methods for applying fundamental knowledge related to criminal justice to topics facing our current and futuristic society to address issues, policies, and laws pertaining to each special topic course. Course may be repeated as topics will vary.
- CJ 326 International and Domestic Terrorism (3 Sem. Hrs.)**
This course examines the threat of international and domestic terrorism. There is an emphasis on the people and groups involved in international terrorism, the goals and ideology of the terrorists, major terrorist events, the global war on terrorism, homeland security, and strategies for containing and defeating the terrorist threat.
- CJ 330 Drugs and Human Trafficking (3 Sem. Hrs.) (Also listed as HCS 330)**
This course introduces the student to the establishment and evolution of drugs and human trafficking in the United States and abroad. The course will examine the connection between organized crimes committed independently and dependently of organized drug and human traffickers and trafficking rings and enterprises. This course will discuss state and federal laws and policies created to reduce, detect, investigate, and apply regarding drugs and human trafficking, immigration, human smuggling and victimization. The skill of identifying drug and human trafficking enterprises and smuggling are also discussed.
- CJ 336 A History of Criminal Justice (3 Sem. Hrs.) (Also listed as HY 336)**
The subject of this course is the historical development of American criminal justice philosophy, institutions, and practices in the political, cultural, and social context of the Western world and the United States from ancient Hebraic law to the present. Emphasis is on the contribution and effect of the Enlightenment, Puritanism, American Revolution and Constitution, and frontier experience on the origins and evolution of the American administration of justice.
- CJ 350 Introduction to the American Legal System (3 Sem. Hrs.) (Also listed as PO 350)**
This course is a review of basic legal doctrines and processes in the U.S. system of jurisprudence. Students are introduced to a wide variety of topics in civil and criminal justice. Topics include the theory and nature of law as a device for social control, torts, contracts, and ownership of property. The course is structured to provide prelaw majors with limited exposure to the many social conflicts managed by law and courts, and to provide education majors with an overview of law-related topics necessary for civics instruction.
- CJ 360 Race, Criminality, and Social Justice (3 Sem. Hrs.)**
Study of the role played by racial minorities at each stage of the criminal justice system. Special attention is devoted to theories and measurement of minority crimes and race relations and to the treatment of minorities by law enforcement officers, courts, and corrections.
- CJ 364 Civil Liberties (3 Sem. Hrs.) (Also listed as PO 364)**
This course focuses on the leading cases and doctrines which balance governmental/societal interests with individual rights across a broad spectrum of social relationships. It explores the constitutional foundations for freedom of expression, due process, and equal protection under the law.
- CJ 375 Cyber Criminology (3 Sem. Hrs.)**
Corequisite: CJ 375L
This course is designed to provide criminal justice students with research and case study for a contemporary criminal justice field; cyber criminology. Cyber criminology explores the interdisciplinary study of cyber, technology, criminal justice fields, and other innovative practices, approaches, and applications to assist in research, investigation, and prevention regarding the science of cyber criminology.
- CJ 375L Cyber Criminology Lab (1 Sem. Hr.)**
Corequisite: CJ 375
Cyber Criminology lab provides an opportunity for students to conduct career exploration and build a record of experience in a lab hosted by a state, local, or federal agency related to criminal justice that utilizes computers and technology connected to cyber and computer crimes. CJ students must complete a minimum of 25 hours to a maximum of 45 hours in an approved lab.
- CJ 380 Crime Scene and Investigation (3 Sem. Hrs.)**
This course is designed to provide criminal justice students with an introduction to the investigation of crimes as related to criminal justice fields of study. This course will examine crime scenes and evidence from tangible and non-tangible sources, and methods used to assist in the investigation of crimes by local, state, and federal criminal justice related agencies.
- CJ 390 Criminalistics (3 Sem. Hrs.)**
Corequisite: CJ 390L
This course is designed to provide criminal justice students with introductory level scientific techniques and measures used for detecting crime. This course will examine evidence used to assist in the investigation of crimes by local, state, and federal criminal justice related agencies.
- CJ 390L Criminalistics Lab (1 Sem. Hr.)**
Corequisite: CJ 390
Criminalistics lab provides an opportunity for students to conduct career exploration and build a record of experience in a lab hosted by a state, local, or federal agency related to criminal justice that utilizes computers and technology connected to cyber and computer crimes. CJ students must complete a minimum of 25 hours to a maximum of 45 hours in an approved lab.
- CJ 395 Criminal Evidence (3 Sem. Hrs.)**

- Corequisite: CJ 395L**
This course is designed to provide criminal justice students with an introduction to criminal evidence. This course will examine the use of criminal evidence for law enforcement and courts. This course will examine evidence used to assist in the investigation of crimes by local, state, and federal criminal justice related agencies.
- CJ 395L Criminal Evidence Lab (1 Sem. Hr.)**
Corequisite: CJ 395
Criminal Evidence lab provides an opportunity for students to conduct career exploration and build a record of experience in a lab hosted by a state, local, or federal agency related to criminal justice that utilizes computers and technology connected to cyber and computer crimes. CJ students must complete a minimum of 25 hours to a maximum of 45 hours in an approved lab.
- CJ 400 Law Enforcement In America (3 Sem. Hrs.)**
This course presents an in-depth examination of American policing. It includes history, structure, functions, processes, and administrative issues of contemporary law enforcement agencies/systems.
- CJ 401 Adult Corrections (3 Sem. Hrs.)**
This course examines socioeconomic facets of crime and principles and practices of delinquency, probation, and parole. Interaction (environmental and attitudinal) of persons from sentencing to return to society will be stressed.
- CJ 440 Homeland Security (3 Sem. Hrs.) (Also listed as HCS 440)**
This course is designed to provide criminal justice students with an introduction to homeland security training and procedures. This course will prepare students interested in federal as well as state laws, practices, and procedures related to investigation, detainment, and prosecution of domestic as well as foreign threats to national security to the United States. This course will explore the management, assessment, supervision of homeland security to all federal agencies authorized by our government.
- CJ 445 Intelligence and Espionage (3 Sem. Hrs.) (Also listed as HCS 445)**
This course introduces the student to the relationships between the U.S. intelligence community and the homeland security enterprise. In doing so, a historical perspective will be provided to highlight the increasingly important role intelligence has played and will play in securing the homeland. The course presents the evolving relationship between intelligence and the homeland security enterprise, with particular emphasis on the roles, capabilities and challenges of intelligence support to the homeland security enterprise.
- CJ 446 Public Sector Organizational Theory and Management (3 Sem. Hrs.)**
This course examines the structure and functioning of public sector organizations focusing on agencies involved in the areas of public safety and health administration. Major theories and concepts relating to structure, behavior, and management practices of public organizations are examined.
- CJ 450 Criminal Justice Research Methods and Evaluation (3 Sem. Hrs.)**
This course is designed to provide criminal justice students with an introduction to research methods, statistics and evaluations. This course will teach students the basics of research design, application, and implementation correlated with theoretical research variables for qualitative and quantitative research designed specifically for criminal justice and related fields.
- CJ 452 Advanced Criminology (3 Sem. Hrs.)**
This course provides an analysis of social causal process and theories by which individuals become criminals and evaluation of the effectiveness of the criminal justice system in returning helpful, contributing citizens back to society. Historical and contemporary orientation.
- CJ 453 Juvenile Delinquency (3 Sem. Hrs.)**
The course applies a sociological approach to analyzing juvenile delinquency. While recognizing a variety of the causes (physiological, psychological, and social) of juvenile delinquency, this approach focuses on the impact of societal conditions on juvenile delinquency. The course combines a theoretical and an empirical emphasis.
- CJ 455 Ethics in the Public Sector (3 Sem. Hrs.) (Also listed as HS 460)**
This course examines ethical issues encountered by employees of governmental agencies, both in terms of management practices and interactions with the public. The course explores application of codes of ethics, theories of ethical decision making, and ethical principles impacting various aspects of the public sector.
- CJ 460 Directed Studies in Criminal Justice (1 Sem. Hr.)**
CJ 462 Directed Studies in Criminal Justice (2 Sem. Hrs.)
CJ 463 Directed Studies in Criminal Justice (3 Sem. Hrs.)
Prerequisite: Permission of instructor (Offered by request)
- CJ 464 Internship in Criminal Justice (3 Sem. Hrs.)**
Prerequisite: Permission of instructor
This course provides an opportunity for students to gain experience in a Criminal Justice career field under the guidance of a faculty and agency supervisor. All Criminal Justice students must take at least three hours of internship course work during their junior or senior academic year. The minimum clock hours for the three hours of required internship course work is 120 clock hours within the semester that the student is registered. Students must meet with the instructor at least one semester before the semester in which they will register for the internship in order to begin the internship application process and gain approval. **Students are suggested to maintain at least a 2.5 G.P.A. to apply for an internship.**
- CJ 465 Senior Research Project (4 Sem. Hrs.)**
NOTE: Students must earn a minimum grade of "C" on Comprehensive Exam, Oral Presentation and the Overall Final Grade.
This course provides a capstone experience for senior Criminal Justice majors. It is available only to Criminal Justice majors and must

be taken during their last term in the degree program. The course consists of four elements: (1) an observation experience at an office or agency engaged in the application of theories and concepts in a subfield of Criminal Justice; (2) an issue paper on a contemporary issue facing criminal justice leaders at the national, state, or local levels and presentation of this research to selected full-time faculty at Athens State University; (3) a supervised review of selected professional literature, and (4) a sufficient score on an externally validated exit exam. Students should consult with their academic advisor **prior** to registration for this course.

Cooperative Education (CP)

Note: These classes are only for students who are active working members of the Cooperative Education Program. A minimum overall grade point average of 2.5 and prior approval by the Co-op Education Office is required. Courses must be taken in sequential order.

CP 301 Parallel Co-op Practicum I (1 Sem. Hr.) *Prerequisite: Prior approval of Instructor*

CP 302 Parallel Co-op Practicum II (1 Sem. Hr.) *Prerequisite: CP 301*

CP 303 Parallel Co-op Practicum III (1 Sem. Hr.) *Prerequisite: CP 302*

CP 304 Parallel Co-op Practicum IV (1 Sem. Hr.) *Prerequisite: CP 303*

CP 305 Parallel Co-op Practicum V (1 Sem. Hr.) *Prerequisite: CP 304*

CP 306 Parallel Co-op Practicum VI (1 Sem. Hr.) *Prerequisite: CP 305*

CP 307 Parallel Co-op Practicum VII (1 Sem. Hr.) *Prerequisite: CP 306*

CP 308 Parallel Co-op Practicum VIII (1 Sem. Hr.) *Prerequisite: CP 307*

(Co-op Work Experience) A series of courses wherein the student works on a part-time basis in a job directly related to their academic major. Grades will be based on the employer's evaluation of the student's productivity and the student's completion of vocational self-assessment workbook exercises and reports, work evaluation, and a personal SWOT analysis leading to the development of a professional career portfolio and class presentation.

CP 401 Alternating Co-op Practicum I (2 Sem. Hrs.) *Prerequisite: Prior approval of instructor*

CP 402 Alternating Co-op Practicum II (2 Sem. Hrs.) *Prerequisite: CP 401*

CP 403 Alternating Co-op Practicum III (2 Sem. Hrs.) *Prerequisite: CP 402*

CP 404 Alternating Co-op Practicum IV (2 Sem. Hrs.) *Prerequisite: CP 403*

CP 405 Alternating Co-op Practicum V (2 Sem. Hrs.) *Prerequisite: CP 404*

(Co-op Work Experience) A series of courses wherein the student works on a part-time basis in a job directly related to their academic major. Grades will be based on the employer's evaluation of the student's productivity and the student's completion of vocational self-assessment workbook exercises and reports, work evaluation, and a personal SWOT analysis leading to the development of a professional career portfolio and class presentation.

CP 410 Co-op Practicum (2 Sem. Hrs.)

Prerequisite: Prior approval of instructor

A course wherein the student works a minimum of 20 hours in a job directly related to their academic major. Grade will be based on the employer's evaluation of the student's productivity and the student's completion of vocational self-assessment workbook exercises and reports, work evaluation, and a personal SWOT analysis leading to development of a professional career portfolio and class presentation.

Computer Science (CS)

CS 305 Concepts of Computer Programming (3 Sem. Hrs.) (Lab fee)

CS 305 may only be taken by Computer Science or Information Technology majors as a substitution for the required professional programming course(s). This course is offered for those incoming students who have not taken programming courses to fulfill their pre-professional requirements and to fulfill the prerequisite for CS 317. The course will introduce the fundamental techniques of programming as a foundation for more advanced study of computer science. Considerable attention is devoted to developing effective software engineering practice, emphasizing such principles as design, decomposition, encapsulation, procedural abstraction, testing, and software reuse. Topics include standard programming constructs, problem-solving strategies, the concept of an algorithm, and fundamental data structures (strings, arrays, and records) along with an introduction to machine representation, and graphics.

CS 307 Foundations of Web Development (3 Sem. Hrs.)

This course focuses on web programming with HTML5 to allow students to develop web pages. Students will also learn how to use CSS and CSS Frameworks to make their web pages adaptive and responsive. The basics of JavaScript and jQuery will also be taught to students so that they can create front-end interactive webpages.

CS 309 Introduction to Digital Logic Design (3 Sem. Hrs.)

Corequisite: CS 309L

This course is a comprehensive introduction to Boolean Algebra and methods for designing circuits which implement Boolean expressions. Topics include binary numbers and codes, axioms and theorems of Boolean Algebra, standard algebraic forms of Boolean expressions, the use of methods such as Karnaugh Maps and the Quine-McCluskey procedures for simplification of Boolean expression, analysis and design of combinational and sequential circuits, register operations, and introduction to fault tolerance design.

CS 309L Digital Design Lab (1 Sem. Hr.) *Corequisite: CS 309*

CS 310 Professional Ethics of Computing (1 Sem. Hr.)

This course is an applied introduction to the ethical problems faced by computer scientists, professional codes of ethics in computing, legal issues involved in technology, and the social implications of computing and other digital technologies.

CS 317 Computer Science I (3 Sem. Hrs.) (Lab fee)

Prerequisite: Precalculus Algebra or higher and an intro programming course

This is the first course for any new CS or ITE student or minor at Athens State. It covers the fundamentals of programming. This course reviews introductory programming and problem-solving techniques and expands upon the following topics: Arithmetic and relational operations; I/O for elementary data types; logic-control constructs for selection and iteration; functions and parameter passing mechanisms. Students are introduced to the concepts and the rationale for object-oriented programming using classes and class functions. This course will also cover the use of arrays, including basic sorting and searching algorithms. Programming assignments will focus on the techniques of good programming style and how to design, code, debug, and document programs.

CS 318 Computer Science II (3 Sem. Hrs.) (Lab fee)

Prerequisite: CS 317 with minimum grade of C

This is an advanced course in object-oriented computer programming using C++. The focus for this course is on the principles of object-oriented programming, abstraction, and software design. It also provides an introduction to recursion, pointers, and linked lists. Object-oriented design and programming, using classes, operator overloading, member functions and inheritance are emphasized. Students will learn the principle of encapsulation (information hiding) and code reuse. Programming assignments will focus on the techniques of design as a prerequisite of good programming.

CS 340 Introduction to Assembly Language and Computer Organization (3 Sem. Hrs.) (Lab fee)

Prerequisites: CS 318 with minimum grade of C; and CS 309

This course is an introduction to computer architecture at the assembly language level. Methods for representing data in computers, the study of the assembly language of a specific computer will be covered. The course covers addressing modes, instruction formats, and control structures of a typical assembly language. A number of programming assignments are given to support assembly programming concepts.

CS 365 Visual Application Development (3 Sem. Hrs.) (Lab fee) (Also listed as ITE 365)

Prerequisites: CS 318 with minimum grade of C; and ITE 327/327L

This course introduces students to programming in visual, event-driven environments. Students learn concepts of visual programming and underlying design principles used in developing applications in visual programming environments. An emphasis will be placed on design of user interfaces, on-line documentation, input, and output components including menus, forms, queries, and reports.

CS 367 Enterprise Application Development (3 Sem. Hrs.) (Also listed as ITE 367)

Prerequisites: CS 318 with minimum grade of C; and ITE 327/327L

This course provides a broad background in the design, development, and integration of server-side enterprise application. Topics include an introduction to the Java programming language, using enterprise-level features of the Java platform such as servlets, Java Server Pages, and data access technologies. Students will be introduced to the architecture, design, and implementation of web applications, multi-tier application architectures, model-view-controller architecture patterns, database connectivity, and security considerations in the enterprise.

CS 372 Data Structures (3 Sem. Hrs.) (Lab fee)

Prerequisite: CS 318 with a grade of C or better

This course is a continuation of CS 318 stressing concepts of abstraction, software engineering, analysis of algorithms, and problem solving skills. The course introduces lists, linked lists, stacks, queues, and trees, and presents problems and algorithms using these advanced data structures. The course covers searching and sorting algorithms. Students are required to understand of each concept through programming assignments.

CS 380 Web Application Development (3 Sem. Hrs.)

Prerequisites: CIS 207 or CS 307 AND CIS 222 or ITE 327/327L

This course takes concepts that users have learned in Foundations of Web Development and Database Systems to create Web applications. Web applications are programs that are created where there is a front facing graphical user interface and a backend database that must interact with each other. The class will teach students how to program in PHP and be able to incorporate SQL programming to allow for the interaction with a database. Introduction will also be provided with the use of Three.js which will allow for the developer to bring in the concept of 3D animation to their web application. Principles of event-driven, user-oriented websites are covered. Emphasis is placed on hands-on design of working web pages and software using a variety of web programming technologies.

CS 382 Mobile Device Software Development (3 Sem. Hrs.) (Also listed as ITE 382)

Prerequisite: CS 372

This course is an introduction to mobile device programming for the iOS and Android mobile device platforms. Students will learn Swift, Objective-C, and Java programming languages for development on the two platforms, and the design patterns used to develop applications for the iPhone, iPad and Android device. We will discuss the core objects that make up iOS and Android Software Development Kits (SDKs) and consider the commonly used programming interfaces for building applications for mobile devices.

CS 385 Pragmatic Artificial Intelligence – Cloud Based Machine Learning (3 Sem. Hrs.)

Prerequisite: CIS 251 or CS 305 or CS 317

This course will help students solve real-world problems with contemporary machine learning, artificial intelligence, and cloud computing tools. As students learn how machine learning solutions work, they will gain a more intuitive understanding of what they can achieve with them and how to maximize their value. Students will walk step-by-step through building cloud-based AI/ML applications to address realistic issues in sports marketing, project management, product pricing, real estate, and beyond.

CS 409 Computer Organization and Architecture (3 Sem. Hrs.) (Lab fee)

Prerequisites: CS 309, CS 340, and MA 308

This course is a comprehensive study of the architecture of a hypothetical digital computer. The course will present an overview of computer architecture and then a detailed design of each major functional subsystem, including: memory, central processing unit (control unit and arithmetic-logic unit), Input/Output devices, and hardware for the support of the Operating System. The study of the implications of computer architecture for systems programming and Operating System design will also be covered.

- CS 414 Programming Languages (3 Sem. Hrs.) (Lab fee)**
Prerequisite: CS 372
 This course is an in-depth study of similarities and differences of modern programming language paradigms. Emphasis is on the implementation of basic language features and in the choice of a language most appropriate for a given problem. Programming assignments will require the use of the unique features of various languages.
- CS 415 Operating Systems (3 Sem. Hrs.) (Lab fee)**
Prerequisites: CS 340 and CS 372
 This course is an applied introduction to Operating Systems, appropriate for students who are interested in using and understanding computer operating systems and networks. The goal is to learn why operating systems are needed and what, at a functional level, they do. This course provides a basic understanding of the concepts of systems programming. Concepts covered include: Operating System Fundamentals, User Interfaces, File Systems, Resource Management (memory, multiprogramming, peripherals), Client/Server Information Systems. Modern commercial and open source operating systems, as well as supporting components, are also studied.
- CS 417 Topics in Object Oriented Programming (3 Sem. Hrs.) (Lab fee)**
Prerequisite: CS 372
 Topics in this course include the principles of object-oriented programming and design, visual application frameworks, and event-driven programming. A formal modeling language will be used for design. Students will be required to design, develop and implement working applications.
- CS 418 Advanced Object Oriented Applications (3 Sem. Hrs.) (Lab fee)**
Prerequisite: CS 417
 This course will cover advanced object-oriented and event-driven programming using modern programming languages. Materials covered will include implementation of inheritance, techniques to achieve encapsulation and improve code reusability, using a formal modeling language for program design, GUI development, event handling, and multithreading programming. Students will be required to design, develop and write advanced working applications.
- CS 423 Principles of Computer Graphics and Game Design (3 Sem. Hrs.) (Lab fee)**
Prerequisites: CS 318 with minimum grade of C; and MA 310
 This course is an introduction to the basic concepts and tools of computer graphics and game design, focusing on three-dimensional space and rendering pipeline. The course covers fundamental concepts of computer graphics through a detailed study of building games in a 3-D game engine. The course includes the design, creation, and implementation of characters, environment, user interface, sound and game mechanics.
- CS 442 Special Topics in Computer Science (1-3 Sem. Hrs.)**
Prerequisite: Permission of instructor
 These courses are to be offered on occasion of student demand or need. Topics which may be covered include special programming languages, compilers, system design, graphics, and special applications. Course may be repeated as topics will vary.
- CS 451 Software Engineering (3 Sem. Hrs.) (Lab fee) (Also listed as ITE 451)**
Prerequisites: CS 372, and MA 308, and senior standing, and permission of instructor
 The course will familiarize the student with the entire software life cycle, spanning from the time of conception of the actual requirements, through the analysis, design, and development of the software. The course will study various methodologies of software engineering; i.e., the analysis and comparison of methods which use sound engineering principles to develop software that is reliable, cost-effective, and easily maintainable. The course will emphasize the concept of a software development team where students work on real-world software development projects to solve software problems for users.
- CS 452 Senior Software Engineering Project (3 Sem. Hrs.) (Also listed as ITE 452)**
Corequisite: UNV 400
Prerequisite: CS 451 and permission of instructor
 This course provides students with the opportunity to apply the knowledge and skills mastered in the computer science discipline through development of complex research or software projects. Emphasis is placed on the concept of software development teams to create project plans, software requirements, design specifications, test plans, and other written documentation for the selected research software project. Student software teams also code, test, and integrate the software according to the requirements and design specifications produced. Technical walk through and software demonstrations are required at the completion of various milestones.
- CS 454 System Security Management (3 Sem. Hrs.) (Lab fee)**
Prerequisite: ITE 420
 The focus of this course is security engineering and building systems to remain dependable in the face of malice, error, or mishaps of other sorts. This course will cover tools, processes, and methods needed to design, implement, and test complete security systems and to adapt existing systems as their environment evolves. Students will use real-world case studies to gain practical experience in solving complex problems, like the ones encountered in industry.
- CS 462 Directed Study/Special Computer Science Project (1-3 Sem. Hrs.)**
Prerequisites: 15 sem. hrs. of upper level computer science coursework, and permission of instructor
 These courses are to be offered on occasion of student demand or need. The courses are designed to allow students majoring in computer science to pursue special projects of interest to both the student and instructor. Projects undertaken for these courses might well be continuations of projects begun in other courses. Course is repeatable up to a maximum of six semester hours.
- CS 472 Algorithm Analysis (3 Sem. Hrs.) (Lab fee)**
Prerequisites: MA 308 and CS 372

This course is an introduction to the classic methods for designing algorithms. The course will study specific problems such as sorting, graph traversals, and matrix multiplication in order to illustrate these methods. The methods studied will include: Divide and Conquer, Back-Tracking, Branch and Bound, and Dynamic Programming and a brief introduction to computational complexity.

CS 474 Introduction to Formal Language Theory (3 Sem. Hrs.) (Lab fee)

Prerequisite: CS 414

This course covers formal programming languages, formal grammars, methods for language parsing, regular and context-free languages, automata, Chomsky hierarchy, Church-Turing Thesis, and theory of computability.

CS 475 Introduction to the Theory of Computing (3 Sem. Hrs.)

Prerequisites: CS 372 and MA 308

This is a first course on the theory of computing. Topics covered include finite automata, regular expressions and languages, push-down automata, pumping lemmas for regular and context-free grammars, the Chomsky hierarchy of language classes, Turing machines and computability, the decidability of the halting problem, time complexity and NP-completeness and tractability.

CS 484 Applied Cryptography and System Security (3 Sem. Hrs.)

Prerequisites: CS 372 and MA 308

Cryptography is about communication in the presence of an adversary. Modern cryptography encompasses problems as diverse as encryption, authentication, and key distribution. This course provides the foundation upon which one may understand what these problems are, how to evaluate protocols and methods to solve them, and how to build secure software solutions for these problems.

CS 485 Modern Artificial Intelligence (3 Sem. Hrs.)

Prerequisites: CS 309/309L, CS 318, and MA 308

Challenging introduction to the major subareas and current research directions in artificial intelligence. Topics include knowledge representation, heuristic search, problem solving, and logic and deduction.

CS 486 Natural Language Processing (3 Sem. Hrs.)

Prerequisite: CS 485

This course will present a fairly broad introduction to Natural Language Processing (NLP, a.k.a. computational linguistics), the study of computing systems that can process, understand, or communicate in human language.

CS 487 Robotics (3 Sem. Hrs.)

Prerequisite: CS 485, MA 331 and MA 310

This course is a challenging introduction to basic computational concepts used broadly in robotics. Topics include simulation, kinematics, control, optimization, and probabilistic inference. The mathematical basis of each area is emphasized, and concepts are motivated using common robotics applications and programming exercises.

CS 488 AI Reasoning, Decisions, and Learning (3 Sem. Hrs.)

Prerequisites: CS 485, MA 331 and MA 422

This course surveys a variety of reasoning, optimization, and decision-making methodologies for creating highly autonomous systems and decision support aids. The focus is on principles, algorithms, and their applications, taken from the disciplines of artificial intelligence and operations research. Reasoning paradigms include logic and deduction, heuristic and constraint-based search, model-based reasoning, planning and execution, reasoning under uncertainty, and machine learning. Optimization paradigms include linear integer and dynamic programming. Decision-making paradigms include decision theoretic planning, and Markov decision processes.

CS 489 Soft Computing and Fuzzy Logic (3 Sem. Hrs.)

Prerequisite: CS 485

A study of the computational intelligence with the Soft Computing paradigm. The topics include the theory and computational methods of Fuzzy Logic and system, Neural Network, Evolutionary Algorithm and other topics, whose paradigms and hybrid techniques are widely applied to data science and mining, pattern classification and clustering, information retrieval, control engineering, decision making, and optimization problem, etc.

Drama and Theatre Arts (DR)

DR 310 Film: History, Development and Evaluation (3 Sem. Hrs.)

This course looks at the history and development of the film as literature and drama, with student practice in critical evaluation. Films will be viewed and read about, and students will perform oral and written criticism of them.

DR 313 Modern American Drama (3 Sem. Hrs.) (Also listed as EH 313)

Through the examination of plays, this course will explore the development of Modern American Drama. The focus will begin with the foundational drama of Eugene O'Neill in the 1920s through the contemporary drama of Susan-Lori Parks in the early 21st Century.

DR 315 Musical Theatre History (3 Sem. Hrs.)

Musical Theatre History surveys the history and evolution of the Broadway Musical and Musical Theatre as one of America's indigenous theatrical art forms. In this course, students will evaluate and compare a variety of Musical Theatre forms from the mid-19th Century, through the "Golden Age" of the 20th Century, and into the postmodern expression of the 21st Century. Musical librettos will be analyzed and examined through readings, discussions, and supplemented with historical documents, artifacts, and dramatic reconstructions (included taped and live performances).

DR 316 Puppetry (3 Sem. Hrs.)

Puppetry is a production class focusing on puppetry design, construction, and performance emphasizing character design, development, and manipulation. Various basic through advanced puppeteering techniques will be discussed and utilized as students work to design and create living creatures from inanimate materials. Students will have the opportunity to begin their training in

puppetry arts which can be used to reinforce their knowledge of design, to develop their puppetry design and construction techniques, and to work on the collaborative process of puppet theater and design. This course will culminate with students creating original puppets to perform original plays for either a live audience or film.

- DR 319 Technical Theatre (3 Sem. Hrs.)**
This course will cover the technical aspects of play production; working behind the scenes and backstage, as well as construction of sets, placement of lights, and putting together all the elements that make up the realization of a full-scale production. Students will work alongside our student workers to complete the builds for shows during the season. In addition, students will learn about the various aspects that go into putting on a production. This course is designed for students who intend to direct a play, or participate at any level, or work professionally in Technical Theatre or teach Drama.
- DR 321 Advanced Scenic and Lighting Design (3 Sem. Hrs.)**
Prerequisite: DR 319 or permission of instructor
This course is a production class focusing on the art of scenic and lighting design, following the process from concept to realized design while emphasizing and incorporating principles of design and elements of composition. Various techniques from introductory through more advanced work will be discussed and utilized as students work to conceptually design a production through research, drafting, sketches, computer design, and model creation. Students will have the opportunity to learn and reinforce their knowledge of the elements of design, to develop their design vocabulary and skills, and to work on the collaborative process of theater design.
- DR 322 Costume Design (3 Sem. Hrs.)**
In this course, students will learn to design costumes for stage productions and will work on combining visual expression with ideas about character and theme. Students will learn to analyze a script for relevant information, develop costume plots and breakdowns, do clothing and design research, create image references, and swatch them with fabric ideas.
- DR 323 Scenic Art (3 Sem. Hrs.)**
Scenic Art is a production class focusing on the practice of scenic painting, following the process from designer drawings and renderings to completed painted projects while emphasizing and incorporating principles of color, composition, painting techniques and production. Various scenic art techniques will be discussed and practiced as students work to learn and hone scenic art techniques in marbling, wood grain, brick, foliage, three-dimensional simulation, and other scenic art skills. Students will have the opportunity to learn and reinforce their knowledge of color theory and design, to develop their scenic art vocabulary and painting techniques, and to work on the collaborative process of scenic design and art.
- DR 324 Props Design (3 Sem. Hrs.)**
Prerequisite: EH 319 or permission of instructor
This course will focus on the development and creation of physical props created for a production to be used on stage by actors. Props will range from paper projects such as letters and books, to large objects to dress a set and have actors interact with, to weapons and other items heavily used by actors on stage. The course will go over research and design of an object, through creation and use of the object on stage as well as handling, tracking, and management of properties through the process of a production. This course is meant to be an introduction to working as a properties manager or props artisan at the professional level. The course is both project and lecture based.
- DR 331 Dramatic Theory and Criticism (3 Sem. Hrs.) (Also listed as EH 331)**
Dramatic Theory and Criticism surveys the range of theatre and performance theories from ancient time to the present, as well as critical methodologies to theatre, drama and performance (e.g. Feminism, Semiotics, Materialism, Post Colonialism, etc.).
- DR 332 Adaptation and the Arts (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
Many plays, musicals, and television shows are adapted from other literary, dramatic, and artistic sources. This colloquium will examine and compare source material such as novels, and short stories adapted into plays, films and other representational forms.
- DR 333 Acting I (3 Sem. Hrs.)**
This course is a study and practice in the art and skills of acting in live theater to include emphasis on the use of voice, gesture, and body language to convey meaning and emotion.
- DR 334 Acting II: Scene Study and Acting Shakespeare (3 Sem. Hrs.)**
Acting II: Scene Study and Acting Shakespeare is a performance class offering in-depth scene and monologue study emphasizing character development and script analysis. This course will culminate with exploring techniques for acting Shakespeare based in the 1623 First Folio.
- DR 335 Movement and Stage Combat (3 Sem. Hrs.)**
Movement Stage Combat explores creative movement for the theatre with an emphasis in stage combat. This course is designed to stimulate the actor's body to increase flexibility and the kinetic response to environmental stimuli through exercise and research into the physical process. This course will be a hands-on approach with emphasis placed upon actor safety, dramatic requirements of the script, and historical accuracy.
- DR 336 Stage Management (3 Sem. Hrs.)**
This course is a production class focusing on the art of the stage, production, and arts management, focusing on theatre, touring productions, and special event venues. Various fundamental arts management techniques and practices through advanced arts management with a focus in promotions and marketing will be discussed as students work to conceptually manage the production and business aspects of a theatre production through scheduling, hiring, safety evaluations, communication skills, reports and contract samples, and utilization of riders. Students will have the opportunity to learn and reinforce their knowledge of front of production management, to develop their stage and management vocabulary skills and techniques, and to work on the collaborative process of theater production marketing. This course will culminate with students presenting a stage management plan or Binder that represents a thorough analysis and preparation to manage a production from behind the scenes.

- DR 350 Jazz (3 Sem. Hrs.)**
Beginning levels of jazz dance include developing a knowledge base and understanding of fundamental jazz technique including core engagement and proper alignment. Exploring the use of dynamics (including tempo, weight, force, space, flow, and release of energy) and how these dynamics can be used for strength (especially in the core) and flexibility. Start to develop dance auditioning skills that will enhance the student's marketability and ability to pick up choreography quickly. Become knowledgeable of important jazz and movement innovators including Luigi, Jack Cole, Bob Fosse, and Rudolf Laban.
- DR 351 Modern (3 Sem. Hrs.)**
Modern is geared toward the student with little to no previous modern dance training. The primary aim of this course is to encourage you to begin the guided exploration and development of an artistic and creative movement technique via the synthesis of your physical, cognitive and emotional capacities. Throughout this class, you will study principles, practices, and language common to a variety of modern dance styles. The material for this course is learned through your active participation in all class related activities. This modern dance technique class will consist of numerous movement experiences that increase skills of coordination and alignment while building strength, flexibility, and endurance. Students will also explore the creation of movement phrases through guided movement exercises.
- DR 352 Ballet (3 Sem. Hrs.)**
An introduction of the basic concepts and principles of classical ballet. The class is designed to develop proper alignment, strength, flexibility, coordination and musicality. Students will increase their knowledge of ballet theory, vocabulary and history through readings and viewings of assigned videos and/or live performances. Students will discover movement as a medium for creative expression of ideas and gain and appreciation of dance as a performing art.
- DR 353 Tap Techniques (3 Sem. Hrs.)**
This class covers the basic steps of tap technique and how it applies to musical theatre. Students learn coordination, rhythmic variations, and performance skills through a series of tap combinations and exercises. Students will examine the relationship between music, rhythm, and syncopation; become knowledgeable of important tap dances and their influence on the art form; be able to apply and connect individual steps learned in class into a choreographed routine; strengthening weight changes and transitions; and improve ability to pick up choreography quickly as well as to dance as a unified tap ensemble.
- DR 400 Audition and Career Prep for Performers (2 Sem. Hrs.)**
Designed to give students confidence and integrity for auditions in musical theatre. Choosing appropriate material and preparation for the audition and performance. Through a process driven approach of active investigation of a song the actor will gain skills to prepare and present a dynamic musical theatre audition. The actor will understand the appropriate audition etiquette expected of them to have a successful career in the industry.
- DR 401 Showcase (1 Sem. Hr.)**
(Must be taken in the semester in which the student graduates.) This course is designed to prepare students for their senior showcase, an opportunity for Musical Theatre majors to present their performance skills to those working professionally in the business. Students will meet with industry professionals and interact with them. Students will continue to refine their audition skills and solidify their audition repertoire. The course will culminate in preparing students for regional and professional theatre auditions, summer stock auditions, and graduate program auditions.
- DR 405 Playwriting (3 Sem. Hrs.)**
This course is a study and practice in the art and skills of playwriting. The student will learn to write plays by workshoping and writing dramatic scenes, outlines, and one-act plays.
- DR 426 Renaissance Drama (3 Sem. Hrs.) (Also listed as EH 426)**
Through the examination of plays, students will explore the development of dramatic literature in the European Renaissance from 1589-1700. Over the course of the semester students will read plays, discuss European playwrights, and examine the historical, social, and critical contexts of the period.
- DR 442 Special Topics in Theatre (3 Sem. Hrs.)**
(Drama and Theatre Arts majors only.) Designed to offer specialty courses in Theatre and Performing Arts based on student demand or need. Subject matter or content may vary within specific sections/terms as indicated by that course's title and description. Drama and Theatre Arts students enrolled in this course will be able to take the course as an elective in their plan of study.
- DR 450 Internship in Performing Arts (3 Sem. Hrs.)**
(Drama and Theatre Arts majors only.) Designed to provide college credit for Drama students to engage and learn in an internship setting in the Performing Arts. The internship experience must be focused in acting, directing, theatre management, theatre design/production (scenic, lighting, costumes, props, sounds, etc.), marketing, or another area as pre-approved by the instructor of record. The Internship in Performing Arts allows Athens State University students in Drama and Theatre Arts to gain valuable, hands-on, professional career experience during their academic plan of study.
- DR 455 Theatre for Young Audiences (3 Sem. Hrs.) (Also listed as EH 455)**
Theatre for Young Audiences (TYA) surveys the range of theatre and performance theories and practice of all phases of play production for young audiences. In this course students will discuss the TYA movement of the later 20th Century, various theories, practices, and applications of theatre for children and adolescents.
- DR 466 Practicum in Production (3 Sem. Hrs.)**
Practicum in Production is designed to provide college credit for participation in Athens State University theatre activities. This course is designed to provide students the opportunities to participate in and learn skills directly related to specific areas of theatrical production.

- DR 467 Musical Theatre Performance (2 Sem. Hrs.)**
Musical Theatre Performance is designed to provide college credit for participation in Athens State University Musical Theatre activities. This course is designed to provide students the opportunities to participate in and learn skills related to Musical Theatre Performance and Production.
- DR 469 Drama Senior Thesis (3 Sem. Hrs.)**
This course is the culmination of the student's years of study at Athens State University in Drama and Theatre Arts. The Drama Senior Thesis is for Drama and Theatre Arts majors in the General Studies or Theatre Design and Technology Concentrations. The Drama Senior Thesis must be taken during a student's final semester, or during the spring semester in anticipated summer graduation.

Economics (EC)

- EC 310 Modern Economics (3 Sem. Hrs.)**
(Fulfills General Education Area IV Social/Behavioral Science)
A macro examination of the operation of modern economic systems including price determination, aggregate demand and supply theory, public policy options, and the philosophical foundations of free market and command systems.
- EC 320 International Economics and Trade (3 Sem. Hrs.)**
(Fulfills General Education Area IV Social/Behavioral Science)
Introduction of the economic principles underlying the international market systems and international trade. Attention given to economic benefits and consequences of free trade, the examination of the factors affecting trade and of the trade policies relating to industrialized and developing nations. Focus will also be on the application of these principles to current international and domestic developments.
- EC 321 Money and Banking (3 Sem. Hrs.)**
Prerequisite: Principles of Economics
A study of how money, credit, and interest rates affect the level of employment, production, and prices in the economy. Topics of study will include the Federal Reserve System, the operations of commercial banks, credit controls, the theory of interest rate determination, and recent trends in banking.
- EC 348 Labor Economics (3 Sem. Hrs.)**
(Fulfills General Education Area IV Social/Behavioral Science)
Introduction to labor in the economy and the relationships among workers, management, labor organizations, and public policy.
- EC 410 International Finance and Monetary Economics (3 Sem. Hrs.)**
Prerequisites: Principles of Macroeconomics (ECO 231), and Principles of Microeconomics (ECO 232), and EC 321
This course provides students with a strong foundation in the theory and practice of international finance and macroeconomics policies, and will explore emerging topics of interest such as a single currency (Euro) in Europe and financial crises in developing countries. The course consists of four parts: foreign exchange markets, the international monetary system, open-economy macroeconomics and international financial markets.
- EC 441 Special Topics in Economics (3 Sem. Hrs.)**
To be offered on occasion of student demand or need.
- EC 460 Directed Study/Research in Economics (3 Sem. Hrs.)**
A course designed to allow students an opportunity to perform research/directed studies in economics. Offered at the discretion of the professor with approval of the College Dean.

Education (ED)

- ED 301 Introduction to Teaching (1 Sem. Hr.)**
Corequisite: UNV 300
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. Introduction to Teaching introduces prospective teachers as well as other education students to the teaching profession. This course encourages students to think more deeply, more broadly, and more systematically about what teaching is, what teachers do, and whether teaching is an appropriate career choice for them. In the course students will develop research and theory-based views of teaching practices, various contexts of teaching and teachers, and contemporary issues related to teacher education.
- ED 302 Foundations of Education (3 Sem. Hrs.)**
Field experience is required. Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. A foundational approach to the study of education draws on the disciplines of history, philosophy, and sociology. This course will examine, discuss, and reflect on philosophical issues related to education in a democratic society, as well as explore interdisciplinary understandings of cultural and social realities of education in a global society. Pre-service teachers will use interpretative, normative, and critical perspectives in understanding the relationship between school and society as well as address emerging issues in education.
- ED 303 Practicum in Teacher Education (1 Sem. Hr.)**
University supervised teaching experience in a K-12 school, enrichment program or academic camp.

- ED 305 Technology and Media in Education (3 Sem. Hrs.) (Software/license fee)**
This course will examine the transformative effect technology is having on society and schools, as well as the implications these changes have for teaching and learning. Students will explore the use of technology in schools, including meeting students' needs and wants, educational equity and challenges for using technology creatively in public school classrooms. As pre-service teachers learn to integrate technology into teaching and to produce educationally sound, technology-based, communication and instructional materials, the ethical, legal, and pedagogical issues related to technology will be emphasized.
- ED 307 Teaching Strategies for the Digital Age (3 Sem. Hrs.)**
This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). This course encourages questioning of previously conceived notions about the qualities and characteristics that make a good teachers and how to use those qualities to better and increase learner awareness regarding ever-changing student needs. Students will learn the unique characteristics of today's digital-age students and 21st century pedagogical strategies used for instructing this population. Upon completion of the course, students will have the ability to locate, use and assess a variety of tech tools that are used for student inquiry and presentation of work and create and present content-based lessons that model explored teaching strategies.
- ED 308 Curriculum Design and Assessment for the e-Classroom (3 Sem. Hrs.) (Cross-listed with CE 444)**
This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). This course focuses on the application and interpretation of theory, research and standards-based effective practices used to design, develop and evaluate distance and blended education experiences. Students will examine different aspects of online teaching (e.g. asynchronous communication, facilitation and feedback) based on research, critically evaluate existing social media and online resources, and apply their learning to online content design. Students will leave the course with a completed online course module that includes content specific activities and an understanding of how to create lessons and assessments that support student exploration of their individual curiosities, educational goal setting, management of learning and assessment of progress.
- ED 312 Cultural Competence and Responsiveness (3 Sem. Hrs.)**
This course is designed to equip students with the knowledge and skills needed to respect, appreciate, and value diverse populations. Beginning with the awareness of self, biases, and prejudices, students will engage in learning experiences to develop skills to interact respectfully, responsively, and effectively with diverse populations, understand daily living practices and challenges of those who represent diverse cultures, races, ages, and socioeconomic platforms. The ultimate goal of cultural competence is to recognize, affirm, foster, and value strengths of individuals from all walks of life and protect and preserve their worth and dignity through activism and action. Learners will use the framework "know myself and know others" to better understand their role as a change agent for liberty and justice.
- ED 313 Information Literacy for the Teacher Candidate (1 Sem. Hr.)**
This course addresses the role of the educator in the field of information literacy. Teacher candidates will learn best practices in how to both perform and teach information literacy practices from both education and library perspectives. Collaborating with a university librarian will give the teacher candidate instruction in comprehending, planning and designing processes for working with school media specialists to practice and teach information literacy skills.
- ED 359 Assessment Strategies for the P-12 Art Classroom (3 Sem. Hrs.)**
Prerequisite: Admission to the Teacher Education Program
Field experience is required. A senior level course designed to provide P-12 art teachers the skills necessary to develop and implement proper assessment strategies. Special emphasis will be on types of assessment that are used in the art classroom as well as the construction of assessments that are appropriate for elementary and secondary art classrooms. Students will understand assessment as it relates to the stages of artistic development in children. Students will understand how to make assessment an integral part of a comprehensive curriculum.
- ED 360 Classroom Management in Art Education (3 Sem. Hrs.)**
Prerequisite: Admission to the Teacher Education Program
Field experience is required. This course is designed to prepare the senior level art student in the techniques of classroom management; emphasizing rules, procedures and general classroom organization for the elementary through high school classroom. Consideration of safety in the art classroom as related to procedural use of materials is stressed in this class. **Course includes Lee v. Macon "Positive Behavioral Supports" and "Makes Sense Strategies" training as required by the Alabama State Department of Education.**
- ED 401 Assessment and Action Research (3 Sem. Hrs.)**
This research methodology course focuses on trustworthy pre-service action research that provides the pre-service teacher guidance with all stages of the research experience (selecting an area of focus, designing a culturally proficient study, collecting and interpreting data, and communicating findings).
- ED 407 Emerging Instructional Technologies (3 Sem. Hrs.)**
Note: This course requires land-based lab activities conducted at the main Athens State campus. This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). In this course, current leading-edge research about emerging instructional technologies is integrated with hands-on experiences. Through the process of compiling, evaluating, and organizing educational technology resources, K-12 teachers will obtain the skills necessary to provide similar learning experiences for their respective students. More importantly, participants will consider their own unique educational contexts while working with course content to determine how the Internet can be used to meet teaching and learning goals.
- ED 408 Issues and Trends in Educational Technology (3 Sem. Hrs.)**
This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video

production). This course will provide a holistic overview of the issues and trends associated with using the Internet for instruction. Participants will review and discuss literature from a variety of sources, such as educational technology research journals, educational technology practitioner magazines, online articles and websites, and select books. Participants will engage in group reading discussions and projects, compose position papers, and chart the history, current state and possible future developments in educational technology.

ED 409 Special Topics in Education Technology (1-6 Sem. Hrs.)

Prerequisites: ED 305, ED 307, ED 308, and permission of instructor

This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). This practicum course explores topics and/or includes projects related to development and innovations in modern technology, as applied to teaching/training and learning. Composition will vary from semester to semester and over time.

ED 410 Curriculum Integration of Technology for Elementary Learners (3 Sem. Hrs.)

This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). This course will focus on using technology tools to help facilitate learning in the elementary classroom and help pre-service teacher and students improve digital awareness. Participants will engage in learning instructional strategies and techniques unique to the elementary classroom. Participants will also review and practice strategies, regarding the proper use and implementation of technologies, into content specific teaching and learning. Students will examine how role of technology differentiating instruction. By the end of the course, participants will have designed several lesson plans and activities for the elementary classroom toolkit.

ED 411 Curriculum Integration of Technology for Secondary and Adult Learners (3 Sem. Hrs.)

This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). This course will focus on using technology tools to help facilitate learning in secondary and adult teaching environments and help pre-service teachers and students improve digital awareness. Participants will engage in learning instructional strategies and techniques unique to secondary and adult classrooms. Participants will also review and practice strategies, regarding the proper use and implementation of technologies, into content-specific teaching and learning. Students will examine how role of technology differentiating instruction. By the end of the course, participants will have designed several lesson plans and activities for the classroom toolkit.

ED 413 Interactive Learning Environments (3 Sem. Hrs.)

This course requires intermediate-level technology/computer skills (e.g., word processing, slide presentations, and basic video production). This course will explore technological impacts and pedagogical practices adapted to address interactive learning environments.

ED 483 Practicum in Teaching and Training (3 Sem. Hrs.) (Also listed as CE 483)

ED 484 Practicum in Teaching and Training (3 Sem. Hrs.) (Also listed as CE 484)

ED 485 Practicum in Teaching and Training (3 Sem. Hrs.) (Also listed as CE 485)

Studies designed to expand teaching/training skills of participants.

English (EH)

EH 301 Advanced Composition (3 Sem. Hrs.)

(Fulfills General Education Area I Written Composition I OR Written Composition II)

A study of advanced features of composition writing and evaluation focusing upon declared majors. Product-centered as well as process-centered techniques will be examined.

EH 302 Professional Writing (3 Sem. Hrs.)

This course focuses on how experienced writers produce texts and solve problems in the workplace. There is an emphasis in the course on the practical production of commonplace writing like memos, reports, and proposals, but our main purpose is to acquire literacies critical to the flexible problem solving needed in the contemporary workplace. We will learn about the conventions of traditional workplace writing while practicing with the new creative opportunities presented by digital technologies including document and web design. We will explore these issues through a collection of contemporary case studies of communication in the workplace. Major assignment topics in the course will be driven by students' professional and personal interest. Research in the course will be tied to these interests, furthering a student's understanding of their primary field of study. Underscoring all work in the course is a strong foundation in ethics with special attention paid to fair communication practices with peers and when representing the ideas of other writers.

EH 303 Journalism (3 Sem. Hrs.) (Lab fee)

(This course will not satisfy literature requirements. It is designed to fulfill requirements for language arts majors.) This course is a study and practical experience with journalistic principles, processes, and practices of the news media, utilizing media outlets both in schools and in the community with special emphasis on work with school publications.

EH 304 Literatures of Early America (3 Sem. Hrs.)

Literatures of Early America: Questions about American identity remain central to history, politics, and art in the United States, though these questions are not new. Literatures of Early America critically examine such questions, and explores how different communities worked to define themselves through cultural production. The course explores literary production across diverse populations including indigenous peoples, early colonists, slaves, politicians, and farmers. This course will pay particular attention to how these groups intersect through the history of North America through 1865. The primary goal of this course is to prepare students to read, discuss, and write about the diversity of literature produced in North America during this time frame. In addition to extensive reading, including critical reading, significant attention will be focused on writing about literature.

EH 305 Writing for New Media (3 Sem. Hrs.)

Prerequisites: ENG 101 and ENG 102; or ENG 101 and EH 301; or EH 301 and ENG 102

Writing for New Media focuses on composing for the web using established technologies. Students will build on the skills they have developed in other writing courses to produce polished, published nonfiction work native to new media formats. The primary media may include blogs, wikis, video compositions, or other developing formats. Students will also learn to support composing in these primary media with other kinds of networked communication. An advanced EH course, the class assumes that students are familiar with writing in different genres and can address the needs of various audiences in their writing, understand how to support ideas with reasons and evidence, can use research to develop and explore ideas, can participate effectively in peer review, and understand how to analyze rhetorical strategies. Furthermore, it is assumed that students can produce clear, grammatically correct prose using standard spelling and punctuation. Instruction will focus on building on this foundation to develop advanced rhetorical skills appropriate for new media compositions.

EH 306 Technical Writing (3 Sem. Hrs.)

Prerequisites: ENG 101 and ENG 102; or ENG 101 and EH 301; or EH 301 and ENG 102

One of the most challenging aspects of workplace writing is communicating the technical aspects of a specialized field of knowledge to a general audience. As professionals become more specialized through education and experience, this act becomes all the more difficult. This course will task students with adapting a range of specialized ideas into documents and other media formats for a wide audience. To do this, students will research and read policy, technical documentation, wikis, instructions, and other common forms of workplace technical writing. Students will practice in producing some of these genres while also exploring best practices for workplace writing in general.

EH 307 Major Authors I (3 Sem. Hrs.)

(Fulfills General Education Area II Literature or Humanities)

This course is a survey of important literary contributions to world civilizations, beginning with the earliest recorded literature and concluding with the 17th century.

EH 308 Major Authors II (3 Sem. Hrs.)

(Fulfills General Education Area II Literature or Humanities)

This course is a survey of important literary contributions by influential world writers of the 18th century through the 21st century.

EH 311 Drama Production (3 Sem. Hrs.) (Lab fee)

(This course will not satisfy literature requirement. It is designed to fulfill requirements for Language Arts majors.) This course covers the study and practical experience in producing, acting, and directing, or otherwise active participation in stage craft in school or community theatre. An opportunity exists for qualified students to study with the Alabama Shakespeare Festival Theatre.

EH 312 Dramatic Literature (3 Sem. Hrs.)

This course covers the selected studies in drama, from classical through contemporary, designed to provide a wide familiarity with dramatic literature. The close study of specific plays are included. Both oral and written student response are required.

EH 313 Modern American Drama (3 Sem. Hrs.) (Also listed as DR 313)

Through the examination of plays, this course will explore the development of Modern American Drama. The focus will begin with the foundational drama of Eugene O'Neill in the 1920s through the contemporary drama of Susan-Lori Parks in the early 21st Century.

EH 314 The Long 18th Century (3 Sem. Hrs.)

The Long Eighteenth Century: This course is a critical study of major and minor works from 1660-1820. Students will read a range of texts across genres to gain an understanding of the broad cultural forces influencing literature of the time. Both oral and written projects are required.

EH 315 Grant Proposal Writing (3 Sem. Hrs.)

Prerequisites: ENG 101 and ENG 102; or ENG 101 and EH 301; or EH 301 and ENG 102

Rather than simply writing grants, the primary focus of this course is understanding the increasingly complex environment of nonprofit philanthropic funding. Once we begin to understand these complexities, we can turn our attention to the strategies of crafting successful proposals. Students will begin the semester with a preliminary project description that will help them narrow and refine potential ideas for proposals. Students will then pivot to research, and will learn how to conduct research that supports project proposals. Students will learn strategies for successfully interacting with clients and inquiring about funding sources before constructing full proposals. Students will adopt strategies in this course to produce successful writing for a variety of public audiences while using some specific document types as major writing projects.

EH 316 Modern American Literatures (3 Sem. Hrs.)

This course explores American Modernism beginning with a brief survey of American Realism and Naturalism and ending with the Second World War. Through the examination of diverse literary work, this course will interrogate several questions. Who is American? What is the American Dream? Who has access to this Dream? What can the American Dream teach us about contemporary American life? The primary goal of this course is to prepare students to ready, discuss, and write about the diversity of literature produced in North America during this time frame. Work in this course will include significant reading, including critical reading, and significant attention on writing about literature.

EH 320 Multicultural Linguistics and Grammar (3 Sem. Hrs.)

Prerequisite: Two courses in freshman composition

This course interrogates language use through the critical lens of Socio-Linguistics. Specifically, the course will examine how systems within language, like grammar, are shaped by cultural forces and speakers/writers.

EH 325 Mythology (3 Sem. Hrs.)

(Fulfills General Education Area II Humanities)

This course is a study of the core Greco-Roman myths of Western Civilization, their impact on art, literature, and culture, and their ongoing evolution in art, advertising, film, and in fantasy and young adult literature.

- EH 330 Literary and Critical Theory (3 Sem. Hrs.)**
This course is an introduction to the major figures and principles of literary theory from Plato to the present.
- EH 331 Dramatic Theory and Criticism (3 Sem. Hrs.) (Also listed as DR 331)**
Dramatic Theory and Criticism surveys the range of theatre and performance theories from ancient time to the present, as well as critical methodologies to theatre, drama and performance (e.g. Feminism, Semiotics, Materialism, Post Colonialism, etc.).
- EH 400 Creative Writing (3 Sem. Hrs.)**
This course is a study and practice in the art and skills of creative writing--poetry, prose, and drama.
- EH 401 Multicultural Communication (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
Contemporary educators and business leaders work with diverse populations, which necessitates learning about communication practices in order to address conflict arising from misunderstandings across cultural groups. This course will explore communication from a variety of cultural perspectives and examine specific examples such as code-switching, conflict resolution, problem solving, and mediation.
- EH 414 History of the English Language (3 Sem. Hrs.)**
(This course will not satisfy literature or composition requirements.) This course looks at the development of American English from early and medieval British beginnings to the current linguistic standards and variations. It is designed to increase ease of use, vocabulary, and appreciation of the English language. Analytical writing is required.
- EH 416 Interpreting the Text (3 Sem. Hrs.) (Also listed as RE 416)**
This course is an examination of various ancient, historical, and literary methods of interpreting literature covering the range from ancient ways of reading texts to current poststructuralist approaches. Even though primary emphasis will center on religious texts, there will be considerable attention given to issues and methods that emerged from the realms of the social sciences, literature, and philosophy.
- EH 425 Shakespeare (3 Sem. Hrs.)**
This course is designed to provide familiarization with the range of Shakespeare's work as well as close critical appreciation of certain sonnets and plays.
- EH 426 Renaissance Drama (3 Sem. Hrs.) (Also listed as DR 426)**
Through the examination of plays, students will explore the development of dramatic literature in the European Renaissance from 1589-1700. Over the course of the semester students will read plays, discuss European playwrights, and examine the historical, social, and critical contexts of the period.
- EH 431 Poetry and Poetics (3 Sem. Hrs.)**
This course is a critical study of the major poems in English and American literature with an emphasis on language, forms, themes, poetic theory, analysis, interpretation, and explication. Both oral and written analysis are required.
- EH 433 Fiction (3 Sem. Hrs.)**
This course is a study of a wide range of fiction. Study is designed both to increase enjoyment of fiction and to develop analytical and evaluative reading skills. Both oral and written response are required.
- EH 440 Issues in Contemporary Literature (3 Sem. Hrs.)**
This course explores American literature written after 1945. Works and authors will be organized around a central theme with emphasis placed on the diversity of literary production during this time. Students will read critically as well as engage with published scholarship in order to produce scholarly writing on these works.
- EH 441 Special Topics in English (1 to 3 Sem. Hrs.)**
Prerequisite: Permission of instructor.
These courses will be offered on occasion of student demand or need.
- EH 450 English Renaissance through Restoration (3 Sem. Hrs.)**
This course is a critical study of the major works of English literature from the Renaissance or Early Modern Period through the end of the Restoration. Students will encounter a variety of genres including poetry, prose, drama, and political writings in order to understand the socio-historical forces that influenced writers of that time.
- EH 451 Postcolonial Literature (3 Sem. Hrs.)**
This course is a study of different forms of literary texts such as fiction, poetry, graphic novels, and films by varied artists from African, Caribbean, Native American, Middle Eastern, Southeast Asian, and South American perspectives. We will examine indigenous, diasporic, and expatriate experiences. From varied geographical and cultural engagements, readings, discussions, and assignments will focus on issues around identity, history, freedom, nationhood, neocolonialism, and cultural heritage.
- EH 452 Medieval Literature (3 Sem. Hrs.)**
This course is a critical study of the major literary works of the Middle Ages in England. The course will cover examples of Old English, Anglo-Norman, and Middle English literature and culture including Chaucer.
- EH 454 Young Adult Literature (3 Sem. Hrs.)**

This is a survey course of novels for middle and high school readers. Various themes and a diverse representation of authors will be studied.

EH 455 Theatre for Young Audiences (3 Sem. Hrs.) (Also listed as DR 455)

Theatre for Young Audiences (TYA) surveys the range of theatre and performance theories and practice of all phases of play production for young audiences. In this course students will discuss the TYA movement of the later 20th Century, various theories, practices, and applications of theatre for children and adolescents.

EH 457 Materials and Methods of Teaching English/Language Arts in the Middle School/High School (3 Sem. Hrs.)

Prerequisite: Admission to the Teacher Education Program

This course does not satisfy requirements for any English major, minor, or general studies. This course is intended to enhance the students' abilities to plan, implement, and evaluate instructional methods, activities and equipment into instruction; to expand knowledge of curriculum in drama, journalism, literature, speech and writing; and to improve student-centered instructional techniques. Students will actively participate in demonstration and modeling of strategies and techniques. Research-based decision making will be emphasized.

EH 460 Special Topics in English (1-3 Sem. Hrs.)

Prerequisite: Permission of instructor

These courses are special research or creative writing courses designed to meet specific needs and interest.

EH 465 Editorial Internship (1 Sem. Hr.)

Prerequisite: Permission of Instructor

The internship is a practical application of editorial theory via several ongoing projects in the English Department. Students will learn introductory editorial theory through scholarship and then apply those theories to technical writing, writing center tutoring, or work on student academic journal publications. Projects will vary between terms, so course may be re-taken for a total of up to 6 credit hours.

EH 469 English Capstone Seminar (1 Sem. Hr.)

This capstone course for English majors, which must be taken during students' final semester as seniors, will consist of three main components: a comprehensive examination based on required Professional courses in English major, a research paper/project designed around students' needs and interests, and a presentation of research. Upon successful completion of this course, students will understand how to formulate a thesis, collect, assess and integrate scholarly research into a 25-page research paper and present the findings of their research orally and before peers. Like all humanities classes at Athens State University, this one increases students' awareness of cultural heritage and helps them develop the research abilities for graduate work.

Elementary Education (EL)

EL 315 Principles and Methods of Teaching Kindergarten (3 Sem. Hrs.)

This is a course designed to teach Elementary Education majors (K-6) appropriate methodology specifically for kindergarten. This course includes developmental characteristics of five-year-old children with emphasis on language and intellectual development. The course will provide theoretical and philosophical bases for selecting materials and methods for a developmentally appropriate kindergarten curriculum. Implications for equipment selection, room arrangements, daily schedules, and learning experiences are discussed.

EL 320 Children's Literature (3 Sem. Hrs.)

This is a survey course of current and traditional prose and poetry thought to be applicable to diverse populations of children. Emphasis is placed on the integration of children's literature throughout the curriculum.

EL 321 Curriculum and Instruction: Language Arts (3 Sem. Hrs.)

Prerequisites: ED 301 and ED 302

Field experience is required. A course designed to teach appropriate methodology for all areas of language arts with an emphasis on effective teaching of written composition in the elementary grades/early middle school grades. Course reflects the integrative nature of the language arts; the need for wholeness; the importance of being able to transfer skills, abilities, and attitudes learned in one context to another.

EL 324 Curriculum and Instruction: Primary Mathematics (3 Sem. Hrs.)

Prerequisite: EL 321

Field experience is required. Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. A course designed to assist prospective teachers of young children in presenting early mathematical concepts and skills. Application of psychological principles to the teaching and learning of mathematics is included.

EL 351 Assessment Strategies for the Elementary Classroom (3 Sem. Hrs.)

A junior level course designed to provide elementary and elementary/collaborative teachers the skills necessary to develop and implement proper assessment strategies. Special emphasis will be on types of assessment that are used in the classroom including state mandated assessments and interpretation of data received from standardized testing as well as the construction of assessments that are appropriate for an elementary classroom.

EL 352 Curriculum and Instruction: Management Strategies (3 Sem. Hrs.)

Prerequisites: ED 301 and ED 302

A junior level course designed to prepare prospective elementary and elementary/collaborative teachers to provide an environment for effective learning. Special emphasis will be on classroom organization, discipline, and the establishment of fair rules and procedures. General methods for establishing a community of learners will be identified through the design of a classroom layout and the procedures and rules that are appropriate for an elementary classroom. **Course includes Lee v. Macon "Positive Behavioral Supports" training as required by the Alabama State Department of Education.**

- EL 413 Curriculum and Instruction: Intermediate Reading (3 Sem. Hrs.) (Lab fee)**
Prerequisite: ER 323
 This course provides in-depth study in and application of the process of reading and reading instruction, theoretical approaches, instructional strategies, classroom organization, and the formal/ informal assessment of teaching reading in the intermediate grades. Emphases are on acquiring vocabulary, developing comprehension skills, and refining reading processes by modeling metacognitive strategies that promote reading for meaning and foster an enjoyment of reading in a balanced literacy program.
- EL 420 Curriculum and Instruction: Science (3 Sem. Hrs.) (Lab fee)**
Prerequisites: ED 301 and ED 302
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. Recommended for students beginning their third full semester of course work. This course is designed to present a comprehensive overview of the place of science in elementary education: the objectives and trends, issues in science curriculum and teaching methods, how children learn science, the relation of science to daily life, processes in science, organizing the program, and obtaining materials for instruction. Emphasis is placed on materials and methods, processes of discovery, and the role of children as investigators. Inquiry science teaching is a major course emphasis.
- EL 423 Curriculum and Instruction: Social Studies (3 Sem. Hrs.)**
Prerequisite: Admission to the Teacher Education Program
 This course is designed to provide prospective elementary and middle school teachers with materials and methods to help children develop competencies that will enable them to deal with and, to some extent, manage the physical and social forces of the world in which they live. Emphasis is placed on a balanced instructional program in the development of understandings, attitudes, and skills which are needed to meet intelligently the problems of everyday living.
- EL 424 Curriculum and Instruction: Intermediate Mathematics (3 Sem. Hrs.) (Lab fee)**
Prerequisites: EL 324 and Admission to the Teacher Education Program
 This course is based on the NCTM Standards and is designed to present a comprehensive overview of the topics presented in an elementary/middle school mathematics program in grades 4-8. Emphasis is placed on materials and methods that assist students in learning mathematical concepts with understanding for application in everyday living.
- EL 482 Internship in Elementary Education (6-12 Sem. Hrs.) (Teaching Internship fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
 Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.
- EL 483 Internship in Elementary Education (3-6 Sem. Hrs.) (Teaching Internship fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
 Seven-week internship program for persons seeking certification through the Elementary/Collaborative K-6 degree. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.
- EL 484 Curriculum Seminar in Elementary Education (3 Sem. Hrs.)**
Prerequisites: EL 324 and Admission to the Teacher Education Program
Field experience is required. This is a senior level capstone course designed to prepare prospective elementary teachers through reflective practice and to provide an environment for effective learning. Special emphases will be on classroom organization, including preparing for the first day of school, establishing fair rules and procedures, and integrating the curriculum. The course will include recent trends in the selection and organization of the elementary school curriculum. General methods for integrated teaching will be identified through the planning of a series of lessons appropriate for an elementary school class. **Course includes Lee v. Macon "Makes Sense Strategies" training as required by the Alabama State Department of Education.**

Early Childhood Education (ER)

- ER 302 Language Development and Developmental Interactions (3 Sem. Hrs.)**
Prerequisites: ED 301 and ED 302
 This course emphasizes the development of language (including phonology, morphology, syntax, semantics, and pragmatics), cognitive, social development and their relationship to language development. Topics include theory and stages of language and cognitive development and strategies and materials used to meet the developmental needs of young children who are developing typically and those with developmental delay and disability.
- ER 303 Professional Education Communication (3 Sem. Hrs.)**
 This beginning education course is designed to facilitate the acquisition of professional attributes, and to improve oral and written communication skills by refining study and research skills, using professional vocabulary, sharing research findings about educational trends and issues, seeking funding for educational programs, sharing information with families, and writing lesson plans. Attributes and dispositions will be articulated, defined, and modeled. These dispositions will be encouraged in oral presentations and collegial interactions. Practice in oral and written language usage will occur through writing and speaking about current educational concerns.
- ER 309 Early Brain Development (3 Sem. Hrs.) (May be used as a substitution for CHD 209)**

The purpose of this course is to help students understand how early brain development might be related to changes in cognitive and affective development in young children birth through age 8. Topics will include (1) normal development in infants and toddlers in all domains, physical, social, emotional and cognitive; (2) the history, theory and research on early brain development; (3) biological perspectives on development; (4) the processes of brain maturation; (5) the educational implications of early brain research; (6) brain plasticity; (7) the neurological basis development disorders, and; (8) the effects early experiences have on the development of the young child.

- ER 310 Principles of Early Childhood Education (3 Sem. Hrs.)**
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. This course is designed to provide prospective teachers of young children with the historical, theoretical, and practical issues of early childhood education. Emphasis is on early childhood philosophical and sociological foundations, facets of development, principles of learning, trends and issues, and program models.
- ER 318 Literature in Early Childhood Education (3 Sem. Hrs.)**
This course has a two-fold purpose. As a survey course, it is designed to assist preservice teachers in becoming acquainted with the great wealth of trade books available for today's young children. An equally important purpose is to assist pre-service teachers so they may guide young children toward more creative, insightful utilization of literary materials in a classroom setting.
- ER 319 Literacy and Literature for the Young Child (3 Sem. Hrs.)**
Field experience is required. Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. Emphasis is given to teaching Language Arts and literature to ESL students. This course examines methods and materials for planning, implementing, and assessing developmentally and culturally appropriate language arts and literature curricula for early childhood education. Emphasis will be on developing the process skills for facilitating emergent literacy, early writing, listening, and speaking, as well as teaching language arts and literature.
- ER 323 Curriculum and Instruction: Primary Reading (3 Sem. Hrs.)**
Prerequisites: ED 301 and ED 302
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. An in-depth study of early literacy development; word identification strategies including phonics, structural analysis, contextual analysis, and whole word methodology; various approaches to reading including the language experience and basal reader approaches and the uses of computers in the reading/writing program.
- ER 324 Literacy Strategies for the Elementary/Early Childhood Classroom (1 Sem. Hr.)**
Prerequisite: ED 302
Emphasis is given to teaching literacy through researched based strategies. This course examines methods and materials for planning, implementing, and assessing developmentally and culturally appropriate literacy skills. Determining a Central Focus will be examined as well as other literacy skills included in the edTPA portfolio. Emphasis will be on developing the process skills for facilitating literacy learning.
- ER 325 Foundations of Reading for the Emergent Reader (3 Sem. Hrs.)**
This course is designed to develop the knowledge and skill-based understanding of pre-service teachers as it relates to the best practices of teaching early literacy skills. In this course, students will understand the importance of oral language, print awareness, letter knowledge, phonological awareness, phonics, and why it is essential to incorporate multi-sensory instructional strategies. Students will learn how to apply this information to students on various academic learning levels. This course will also support the Literacy Act.
- ER 326 Assessment in Early Childhood Classrooms (3 Sem. Hrs.)**
This course examines the goals, benefits, and uses of developmentally and culturally appropriate assessment processes that positively influence children's development and learning. It focuses on the family's significant role in the assessment process. It includes developmental and health screenings, systematic observations, play-based assessments, diagnostic evaluations, documentation of learning, and curriculum and criterion referenced assessments. Strengths, limitations, problems, and the developmental and cultural appropriateness of the selected practices and strategies will be addressed.
- ER 327 Classroom Management in Early Childhood Education (3 Sem. Hrs.)**
This course is designed to provide prospective teachers of young children with a rationale for thoughtful provision of an appropriate environment for effective learning and development in early childhood programs. This course will provide early childhood educators with the factors that influence quality programs in the area of management. **Course includes Lee v. Macon "Positive Behavioral Supports" training as required by the Alabama State Department of Education.**
- ER 330 Children's Constructions of Relationships through Arithmetic and Mathematical Reasoning (3 Sem. Hrs.)**
Prerequisites: ED 301, ED 302, and ER 319
Field experience is required. Students will examine how young children construct number and mathematical concepts. They will identify and examine developmentally and culturally appropriate techniques, strategies, and materials for teaching young children arithmetic and mathematical concepts.
- ER 400 Children's Play as Symbolic Behavior (3 Sem. Hrs.)**
This course will examine the role of representation in young children's learning, study the child's developing ability to represent what they know about their worlds through play, understand the impact of experience, culture, and social interaction on the ability to represent, as well as allow students the opportunity to explore a range of forms of symbolic representations and develop ideas and strategies to stimulate children's development.
- ER 402 Preschool Curriculum (3 Sem. Hrs.)**
This course provides a curricula framework of goals and outcomes for young children attending Head Start, preschool, Pre-K and

Kindergarten programs that support their growth and development and help teachers and administrators meet state and national standards of high quality in their programming for children. The course builds knowledge about outcomes in nine areas considered essential in preparing children for school success; language development, literacy, mathematics, science, creative arts, social and emotional development, approaches to learning and physical health and development. Students will develop the knowledge and skills to plan for children, implement plans, and assess the progress of children in meeting local, state and national standards. Emphasis is on planning and implementing plans in all domains of learning for all children, including English language learners and those with special needs.

ER 420 Parenting and Community Relations (3 Sem. Hrs.)

This course will examine various ways of enhancing the young child's development through promoting positive interrelationships among early childhood educators, parents and others in the community. Using an ecological systems framework, the course builds knowledge of the roles of diverse family structures, cultural identities, stressors and supports, economic circumstances, and community characteristics and resources in facilitating child development. Learners develop skills needed for communicating effectively with families, facilitating parent education, and promoting family involvement with child care setting as well as utilization of community resources. Special emphasis is given to the importance of the role of the educational leader in school-community relations.

ER 430 Investigation, Experimentation and Inquiry (3 Sem. Hrs.)

Prerequisite: Admission to Teacher Education Program

Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. Students will examine how young children use investigation, experimentation, and inquiry to build theories in science and social studies. Emphasis will be placed on developmentally and culturally appropriate approaches that integrate the content and concepts for science and social studies. **Course includes Lee v. Macon "Makes Sense Strategies" training as required by the Alabama State Department of Education.**

ER 450 Administering/Managing Early Childhood Programs (3 Sem. Hrs.)

It is designed to provide future administrators of childcare programs with a knowledge of the factors that influence quality programs which include: program philosophy; policies and evaluation; scheduling; nutrition and health services; home and school collaborations; administrative organization and regulations; managing personnel; working with families; organizing the physical environment; financing and budgets; advocacy and contributing to the profession.

ER 460 Practicum in Early Childhood Education (3 Sem. Hrs.) (Lab fee)

This field experience consists of tutoring kindergarten or first grade students in math and reading and select in service opportunities.

ER 463 Health and Safety in Early Childhood Education Programs (3 Sem. Hrs.)

This course introduces students to contemporary issues related to children's health and safety. An emphasis is placed on the promotion of children's healthy development and well-being.

ER 464 Developmentally Appropriate Practice for Infants and Toddlers (3 Sem. Hrs.)

A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence.

ER 470 Early Childhood Curriculum (3 Sem. Hrs.)

Prerequisites: ER 310 and Admission to Teacher Education Program

Field experience is required. This course is the capstone course for early childhood majors and should be taken the semester prior to internship. Senior methods portfolio must be submitted during this class. This course is designed to teach the basic principles and considerations underlying planning a developmentally appropriate curriculum for young children in Pre-K through 3rd grade (P-3 certification), in all areas of development. This course examines the content, methods, and materials appropriate for young children and the teacher's role in organizing and integrating the early childhood curriculum. Implications for equipment selection, room arrangements, daily schedules, and learning experiences are discussed.

ER 480 Internship in Early Childhood Education (6-12 Sem. Hrs.) (Teaching Internship fees)

Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office

Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

English for Speakers of Other Languages (ESOL)

ESOL 322 Second Language Acquisition (3 Sem. Hrs.)

A course designed to provide all educators the fundamental theories and knowledge about second language acquisition, with an emphasis on instructional methods for teaching English language learners.

ESOL 325 Theoretical Foundations of Language Acquisitions (3 Sem. Hrs.)

A course designed to investigate the conceptual, linguistic, sociological, historical, political, and legal foundations of ELL education. Emphasis is placed on understanding acculturation and academic achievement of, and programmatic alternatives and pedagogy for ELLs in a pluralistic society. Multiple factors impacting the school experience of language minority students will be explored, including but not limited to: cognitive/academic (school, teacher), social/affective (personal, family, community), and linguistic development issues.

- ESOL 328 Introduction to Linguistics for Teachers of Young English Learners (3 Sem. Hrs.)**
Prerequisite: ESOL 322
 This course provides an introduction to language as a system, with a particular focus on teaching English as a second language (ESL) or English as a foreign language (EFL) to young and adolescent learners (ages 4-18). Main course topics include (1) young and adolescent ESL/EFL learners' first and second language acquisition, (2) children's oral language development and emergent literacy development, (3) the fundamentals of linguistics (e.g., phonology, phonetics, morphology, syntax, and pragmatics), (4) pedagogical implications for teaching oral language and emergent literacy skills to young ESL/EFL learners, and (5) implications for teaching listening, speaking, reading, and writing skills to adolescent English learners in ESL/EFL classrooms.
- ESOL 358 Introduction to Linguistics for Teachers of Adult English Learners (3 Sem. Hrs.)**
 This course serves as an introduction to and overview of the various systems of the English language, with a particular focus on teaching English as a second language (ESL) or English as a foreign language (EFL) to adult learners. It explores (1) second language acquisition theories and adult learners' second language learning, (2) the influence of the first language on second language acquisition, and (3) English phonology, phonetics, morphology, syntax, and pragmatics. Candidates will have an opportunity to compare the systems of English to those of other languages in order to identify similar and contrasting features and areas of challenge for adult ESL/EFL learners. This course also addresses implications for teaching listening, speaking, reading, and writing skills in adult ESL/EFL classrooms.
- ESOL 404 Methods and Materials for Teaching English Language Learners (3 Sem. Hrs.)**
Prerequisite: ESOL 322 or ESOL 325
Field experience is required for students majoring in the Elementary Education/ESOL K-6 program. This course focuses on curriculum development and instruction for students (K-6) in a variety of English learner programs. The course emphasizes second-language methods, approaches, and strategies to facilitate ELL students learning of reading, writing, speaking and listening in English and other content areas such as mathematics, science and social studies. Frameworks for evaluating curriculum materials and their instructional recommendations for ELL students are provided.
- ESOL 405 Assessment of English Language Learners (3 Sem. Hrs.)**
 The theoretical and practical aspects of assessing English language learners are addressed including examination of instruments used by educators to assess the language proficiency and academic achievement of linguistically diverse students. Classroom assessment practices across content areas will be developed within this course. Provisions of state and federal requirements, and the use of varied data sources to distinguish between ELLs who are developing normally and those with a disabling condition are discussed.
- ESOL 463 TESOL Methods for Young English Learners (3 Sem. Hrs.)**
 This course focuses on curriculum development and instruction for young and adolescent English learners (ages 4-18) in English as a second language (ESL) or English as a foreign language (EFL) programs. The course emphasizes second and foreign language methods, approaches, and strategies to facilitate young and adolescent learners' learning of listening, speaking, reading, and writing in English. It also examines issues in assessing young and adolescent learners' English language proficiency levels and designing assessment in ESL/EFL classrooms.
- ESOL 465 TESOL Methods for Adult English Learners (3 Sem. Hrs.)**
 This course is an examination of past and current approaches, methods, and techniques for teaching English to adult learners of English as a second language (ESL) or English as a foreign language (EFL). Teacher candidates analyze ESL/EFL program models and methods of instruction for adult English learners. Candidates also develop lesson planning skills and evaluate materials and resources for enhancing adult ESL/EFL learners' academic language and literacy skills for a variety of career, postsecondary, and community goals. The course examines issues in assessing adult learners' English language proficiency levels and designing assessment in adult ESL/EFL classrooms.
- ESOL 470 Practicum in TESOL (3 Sem. Hrs.)**
Prerequisite: Permission of Instructor Required
 This course is designed to help prepare future teachers of young or adult learners of English as a second language (ESL) or English as a foreign language (EFL) to understand and meet ESL/EFL learners' learning needs through comprehensible instruction and appropriate assessment. Teacher candidates develop strategies to create and adapt materials for ESL/EFL learners' integrated oral English language and literacy development (speaking, listening, reading, and writing skills). This course also includes a supervised teaching practicum in which teacher candidates plan, deliver, reflect on, and evaluate instruction in K-12 ESL/EFL programs or college-level ESL/EFL programs (or adult education ESL/EFL programs).

Enterprise Systems Management (ESM)

- ESM 300 Enterprise Systems & Business Processes (3 Sem. Hrs.) (Lab fee) (Also listed as LSM 300)**
Prerequisite: AC/MG 302
 Students will learn how enterprise software is used to manage the integration of business operations. Through a process-oriented view of the organization and its relationships with suppliers, customers, and employees, students study software that automates business processes and workflow. Procurement, production and sales logistics processes and their integration with Accounting and Human Resources are investigated. Students will experience ERP through hands-on lab exercises, and improve soft skills such as writing, presenting, and team building through ERP project documentation and presentations.
- ESM 320 Human Capital Management Systems (3 Sem. Hrs.) (Lab fee)**
Prerequisite: ESM 300
Prerequisite or Concurrent Enrollment: BUS 276 or MG 349
 Students will learn how human capital management systems provide the tools and technologies needed to enhance all facets of HR administration and employee relationship management. Key business processes such as attracting and retaining human resources, motivating human resources, payroll processes, benefits administration, and evaluating performance will be studied. Students will

experience ERP and other related software through hands-on lab exercises, and improve soft skills such as writing, presenting, and team building through ERP project documentation and presentations.

ESM 330 Accounting Information Systems (3 Sem. Hrs.) (Lab fee)

Prerequisite: ESM 300, 6 hours of Accounting; **Prerequisite or Corequisite:** MG 350

This course will introduce students to the enterprise systems that produce financial information for organizations. Key business processes for acquiring financial and capital resources will be studied. Examples include: accounting for financial capital and assets, accounting for sales and receivables, creating income statements and balance sheets, and other reports reflecting financial performance of an organization. Students will experience ERP and other related software through hands-on lab exercises, and improve soft skills such as writing, presenting, and team building through ERP project documentation and presentations.

ESM 410 Business Intelligence Systems (3 Sem. Hrs.) (Lab fee)

Prerequisite: ESM 300

This course is a study of data, information, and data warehouses as business intelligence solutions. Students will learn to design and develop an enterprise data warehouse as a central repository of integrated data for comprehensive analysis, presentation, and business intelligence. Special emphasis will be placed on data mining, cleansing of legacy data and elimination of data redundancy to ensure consistency and protect data integrity. Students will experience business intelligence and data warehousing through hands-on lab exercises, and improve soft skills such as writing, presenting, and team building through ERP project documentation and presentations.

ESM 420 Enterprise Systems Development (3 Sem. Hrs.) (Lab fee)

Prerequisites: ESM 300 and ISM 400

Students will be introduced to basic programming skills needed to customize and maintain ERP software systems. Practical programming assignments using a corporate database and several languages will be used to learn syntax, table processing, and report generation for real-world implementation and use within an ERP system. Students will experience ERP and other related software through hands-on lab exercises, and improve soft skills such as writing, presenting, and team building through ERP project documentation and presentations.

ESM 425 Enterprise Systems Configuration (3 Sem. Hrs.) (Lab fee)

Prerequisite: ESM 300

In this course, students will learn to implement an ERP from initial installation through configuration and testing with business transactions. They will customize an ERP system learning to setup financials, human resources, logistics, sales and distribution modules to accommodate the specific needs of an organization. Students will experience ERP and other related software through hands-on lab exercises, and improve soft skills such as writing, presenting, and team building through ERP project documentation and presentations.

ESM 460 Enterprise Systems Senior Project (3 Sem. Hrs.)

Prerequisite: ESM 320 or ESM 330

This capstone course for Enterprise Systems Management majors will consist of three main components: a comprehensive examination based on required courses in Enterprise (ESM) and Information Systems (ISM) management, a software project, and a paper with presentation of the results of the project. Upon successful completion of this course, students will understand how to use software in a business context to manage materials, production, and procurement processes while controlling and reporting corporate finances. This course must be taken during the student's senior year at Athens State.

ESM 461 Internship in Enterprise Systems Management (1 Sem. Hr.) (At least 50 hours of work-based experience is required)

ESM 462 Internship in Enterprise Systems Management (2 Sem. Hrs.) (At least 100 hours of work-based experience is required)

ESM 463 Internship in Enterprise Systems Management (3 Sem. Hrs.) (At least 150 hours of work-based experience is required)

Prerequisites: MG 320 or GBA 300; Senior standing, permission of academic advisor, and compliance with College of Business Internship Policies and Procedures.

These internships in the field of Enterprise Systems Management are designed to provide the student with practical work experience leading to a potential career in either functional or technical areas of the field.

Finance (FIN)

FIN 301 Financial Institutions and Markets (3 Sem. Hrs.)

Prerequisites: Principles of Accounting, Principles of Economics, and Algebra

Overview of the financial systems in which business operates, with emphasis on financial institutions, instruments, and markets.

FIN 355 General Insurance (3 Sem. Hrs.)

A study of fundamental principles and uses of various types of insurance: life, fire, automobile, homeowners, and other casualty and business forms.

FIN 356 Real Estate (3 Sem. Hrs.) (Approved by the Alabama Real Estate Commission as a pre-license course)

A course designed to give students a broad understanding of the principles of real estate. Instruction includes historical background, freehold estates, leasehold estates, deeds, transferring of interests, financing, appraising, and the Alabama Real Estate License Law.

FIN 412 Money and Capital Markets (3 Sem. Hrs.)

Prerequisites: Principles of Accounting, Principles of Economics, Algebra, MG 350, and FIN 301

This course will offer an overview of the financing process and the role of financial markets. Areas covered are characteristics of instruments traded in money and capital markets; determinants of and the relationships between different asset prices; and international aspects of financial markets.

- FIN 414 Investments (3 Sem. Hrs.)**
Prerequisites: Principles of Accounting, Principles of Economics, Algebra, MG 350, and FIN 301
A study of the various investment media together with analysis models of investment management. Emphasis is on investment decision making and portfolio analysis.

General Business (GBA)

- GBA 301 Windows Applications for Business (3 Sem. Hrs.)**
An examination of the many uses for windows applications in the modern business setting. Emphasis given to a “hands on approach” of assessing the usage of personal computers for preparing spreadsheets, managing files, word processing, and graphics.
- GBA 305 Statistical Methods of Business I (3 Sem. Hrs.)**
Prerequisite: Finite Math (MTH 110) or higher level math course
Introduction to descriptive and inductive methods to evaluate data. Coverage will include the calculation of central tendency, tests of hypothesis, probability theory, and sampling.
- GBA 306 Statistical Methods of Business II (3 Sem. Hrs.)**
Prerequisite: BUS 271 or MTH 265 or GBA 305
An advanced course covering topics such as analysis of variance, time series analysis, simple and multiple regression, and index numbers.
- GBA 307 Quantitative Business Analysis and HR Analytics (3 Sem. Hrs.)**
Prerequisites: (BUS 271 or MTH 265 or GBA 305); and (BUS 272 or GBA 306)
Focuses on the concepts, processes and problem solving tools related to the quantitative aspects associated with management and operation of a business. Topics include applied linear programming, decision theory, waiting line analysis, regression analysis, forecasting techniques, inventory management and similar topics. In addition to an in-depth study of these subjects, the course will include case studies, optimization techniques, and multi-criteria decision-making applications.
- GBA 311 The Legal Environment of Business (3 Sem. Hrs.)**
An analysis of the legal, social, and ethical environment of business.
- GBA 314 Business Ethics (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
An examination of moral philosophy and its relevance to business operation and managerial decision making. Ethical choices and their impact will be considered. Extensive use of the case study approach will be utilized.
- GBA 350 International Business Law (3 Sem. Hrs.)**
Prerequisite: None; recommended that the student complete GBA 311 or PO 350, and MG 352 before taking GBA 350
This course focuses on the legal framework within which international trade takes place. Within this large framework public and private international law are important as a sub-focus. Areas to be studied include international organizations, environmental law, human rights, economic/commercial law, public and private international law, tax law, comparative law and ethics.
- GBA 357 Personal Finance (3 Sem. Hrs.)**
A study and review of consumer money management problems, choices, and decision-making. Topics such as investing in stocks, bonds, mutual funds, commodities, and options will be covered.
- GBA 460 Directed Study/Research in Business (3 Sem. Hrs.)**
A course designed to allow students an opportunity to perform research or directed studies. This course is offered at the discretion of the professor with the approval by the College Dean.

Geography (GO)

- GO 300 World Regional Geography (3 Sem. Hrs.)**
(Fulfills General Education Area IV Social/Behavioral Science)
This course examines recent trends and research concerning the physical, historical, cultural, economic, and political developments in North America, Europe, South America, Africa, and Asia. The five basic themes of geography--location, place, relationships within places, movement, and regions--are stressed. There is also emphasis on patterns of social and political development, cultural diffusion, conflict, and cooperation in each region.

General Science (GS)

- GS 301 Atmospheric Science (3 Sem. Hrs.)**
Corequisite: GS 301L
(Fulfills General Education Area III Natural Science)
This is a survey course in meteorology at the introductory level. This course provides the student with physical explanations for those phenomena collectively called weather.
- GS 301L Atmospheric Science Lab (1 Sem. Hr.)** **Corequisite: GS 301 (Lab fee)**
- GS 330 Environmental Chemistry (3 Sem. Hrs.) (Also listed as CH 330)**
This laboratory course is a study of natural chemical processes of Earth and actual and possible effects of humans on natural chemical systems. Environmental problems such as air and water pollution, ozone depletion, and global warming are discussed. Topics may also

include the introduction to some methods of environmental analysis and pertinent environmental regulations.

GS 441 Special Topics in General Science (1 Sem. Hr.)

GS 442 Special Topics in General Science (2 Sem. Hrs.)

GS 443 Special Topics in General Science (3 Sem. Hrs.)

GS 444 Special Topics in General Science (4 Sem. Hrs.)

Prerequisite: Permission of instructor

These courses will be offered on occasion of student demand or need.

GS 456 Materials and Methods of Teaching General Science in Middle School/High School (3 Sem. Hrs.) (Also listed as BI/CH 456)

Prerequisite: Admission to the Teacher Education Program

This course is intended to enhance the students' abilities to plan, implement, and evaluate instructional activities and to select and use appropriate materials and equipment in the field of secondary science (Biology, Chemistry, General Science). Students will actively participate in demonstration and modeling of strategies and techniques. Emphasis will be placed on the integration of laboratory activities into the curriculum and research-based science pedagogical methods. This will include the use of technology, laboratory management, inquiry teaching, teaching resources, science-thinking skills, and the Alabama science curricula. Does not satisfy requirements for biology/chemistry/general science major, minor, or general studies.

GS 461 Directed Study/Research in General Science (1 Sem. Hr.) (Lab fee)

GS 462 Directed Study/Research in General Science (2 Sem. Hrs.) (Lab fee)

GS 463 Directed Study/Research in General Science (3 Sem. Hrs.) (Lab fee)

Prerequisite: Permission of instructor

These courses will be offered on occasion of student demand or need.

Health Care Management (HCM)

HCM 340 Introduction to Health Care Systems (3 Sem. Hrs.)

Corequisite: UNV 300

This course provides an overview of the organization and administration of health care delivery systems in the United States. It examines the history, roles, and interactions of the various providers, consumers and governments.

HCM 345 Management of Health Care Organizations (3 Sem. Hrs.)

Prerequisite: UNV 300 or BUS 275 or MG 346

This course is designed to prepare students for managing health care organizations, and the development of strategies for addressing the increasing pressure to contain costs and at the same time maintain quality health care. Topics covered will include an understanding of the daily tasks managers face and the knowledge and skills required; the management of health care teams; and the concepts of total quality management to continuously evaluate and improve health care delivery.

HCM 355 Survey of Issues in Health Care Management (3 Sem. Hrs.)

Prerequisite: UNV 300 or BUS 275 or MG 346

Health Care organizations are under continual pressure to contain costs while maintaining high quality health care. This course is designed to help students learn about the many controversial issues facing the health care industry and to develop skills for analysis of issues facing health care organizations, including ambulatory, acute care, and long-term care facilities. Attention will be given to the often conflicting demands health care organizations face from the various stakeholders including state and federal agencies, managed care organizations, employers, health care professionals, and patients.

HCM 356 Legal and Ethical Issues in Health Care Management (3 Sem. Hrs.)

Prerequisite: HCM 340

This course examines the basic concepts of legal aspects and philosophical approaches to ethical dilemmas in the health care setting. Topics to be discussed include health care laws and ethical choices and their impact to patients and health care professionals.

HCM 440 Ambulatory Care Management (3 Sem. Hrs.)

Prerequisite: UNV 300 or BUS 275 or MG 346

This course will examine issues related to management of ambulatory care organizations. Topics included will be organizational and financial management issues, patient care systems, managed care, human resource management principles, planning and marketing.

HCM 445 Management of Health Care Financial Resources (3 Sem. Hrs.)

Prerequisites: MG 303 and MG 350

This course is designed to help students apply financial and managerial accounting principles to understanding the health care financial environment and analysis of financial statements, including ratio analysis. Operating, revenue, and performance budgeting concepts, controlling operating results, and variance analysis will be applied to health care finances. Benchmarking, cost analysis, forecasting, and financial business planning techniques will be evaluated in the realm of health care management.

HCM 451 Strategic Planning, Practice, and Marketing in Health Care (3 Sem. Hrs.)

Prerequisites: MK 331, HCM 345, HCM 356, and HCM 445

This course is designed to provide students opportunities to apply marketing, strategic planning and implementation concepts and tools in a variety of real-world health care settings. Students will gain experience in dealing with dynamic and unstructured strategic problems with multiple and conflicting goals in the complex health care environment.

HCM 455 Health Care Management Internship (3 Sem. Hrs.)

Prerequisites: Senior standing plus completion of all 300-level required HCM courses

Purchase of liability insurance is required. The course is designed to give students practical work experience in a variety of health care settings leading to a potential career in health care management. In addition, students will explore strategies to assess

methodologies of healthcare delivery.

HCM 460 Health Care Management Senior Seminar (3 Sem. Hrs.)

Prerequisites: Senior standing plus completion of all 300-level required HCM courses

This course is designed to develop management skills using practical applications of leadership and behavioral theories in a variety of health care settings. In addition, upon completion of the course, students will have gained effective tools to pursue employment in the health care management field.

Homeland and Corporate Security (HCS)

HCS 300 Introduction to Homeland Security (3 Sem. Hrs.)

This is an introductory course to discuss the transition from the creation of homeland security to the formation of the current modern-day homeland security agency and system. This course will discuss more modern and innovative technologies utilized in homeland security to assist agents with apprehension, investigation, prevention and security measures, critical infrastructure protection, intelligence, risk management, legal and ethical issues, border security, and interagency and intergovernmental relations.

HCS 310 Security and Private Security (3 Sem. Hrs.)

This homeland security course will examine the organization and management of the security function in industry, governmental agencies, and homeland security. The exploration of methods to protect personnel, facilities, and other major assets, loss prevention, control, cybersecurity, and risk management are also discussed in relationship to homeland security and other government agencies and systems.

HCS 320 Organization and Management (3 Sem. Hrs.)

This course will provide general knowledge and understanding of the basic structure, organization and management of homeland security agencies in order to examine personnel; theoretical, traditional, and modern management styles; and approaches utilized to solve problems and create innovative approaches of the agency administration.

HCS 330 Drugs and Human Trafficking (3 Sem. Hrs.) (Also listed as CJ 330)

This course introduces the student to the establishment and evolution of drugs and human trafficking in the United States and abroad. The course will examine the connection between organized crimes committed independently and dependently of organized drug and human traffickers and trafficking rings and enterprises. This course will discuss state and federal laws and policies created to reduce, detect, investigate, and apply regarding drugs and human trafficking, immigration, human smuggling and victimization. The skill of identifying drug and human trafficking enterprises and smuggling are also discussed.

HCS 410 Incident Command and Disaster Recovery (3 Sem. Hrs.)

This course is designed to provide the student with the requisite skills to create strategic emergency management plans with a hazard-specific focus. Learn a cohesive approach to emergency management that includes operations plans to prepare, prevent, protect, respond and recover. This strategic hazard-specific plan will integrate the Planning Cycle method to maintain a high-level of continual preparedness. This course will also integrate the knowledge acquired in subsequent EMCP courses in developing functional operations planning to manage and coordinate complex natural, technological and political emergencies.

HCS 420 Weapons of Mass Destruction (3 Sem. Hrs.)

The student will be introduced to the basic understanding of terrorism and how to effectively plan how to protect their communities from attack involving weapons of mass destruction. Upon completion, the student will be able to define and discuss terrorism and weapons of mass destruction. They will learn to formulate protective strategies and to implement tactical procedures to protect their communities from terrorist attacks.

HCS 430 Physical Security Assessment and Systems Integration (3 Sem. Hrs.)

This course will focus on the development and implementation of a Vulnerability Assessment program. Students will look at the Vulnerability Assessment's role in the Risk Assessment process and learn how to support the development of the Hazard Mitigation Plan and the Site Physical Security Program. Students will also learn the CARVER system, which is a step-by-step approach to Vulnerability Assessment, and identify the application of the program. The student will learn to apply a research methodology for gathering information, conducting investigations, conducting interviews, briefings with state, federal, and private clients. This course will explore physical structures of facilities, cyber security, and physical securities for assessment management and tests. Personnel access, traffic control and other mitigation measures are covered.

HCS 440 Homeland Security (3 Sem. Hrs.) (Also listed as CJ 440)

This course is designed to provide criminal justice students with an introduction to homeland security training and procedures. This course will prepare students interested in federal as well as state laws, practices, and procedures related to investigation, detention, and prosecution of domestic as well as foreign threats to national security to the United States. This course will explore the management, assessment, supervision of homeland security to all federal agencies authorized by our government.

HCS 445 Intelligence and Espionage (3 Sem. Hrs.) (Also listed as CJ 445)

This course introduces the student to the relationships between the U.S. intelligence community and the homeland security enterprise. In doing so, a historical perspective will be provided to highlight the increasingly important role intelligence has played and will play in securing the homeland. The course presents the evolving relationship between intelligence and the homeland security enterprise, with particular emphasis on the roles, capabilities and challenges of intelligence support to the homeland security enterprise.

HCS 450 Surveillance and Investigative Techniques (3 Sem. Hrs.)

An examination of basic police surveillance and counter-surveillance procedures and methods, including foot and vehicle; one-, two- and three-person or ABC surveillance; aerial platform; and electronic and stationary surveillance operations. Hand on training includes topic definition and history of surveillance, four basic methods of surveillance, foot surveillance operations, vehicle

surveillance procedures, stationary surveillance methods, aerial platform surveillance, counter-surveillance operations, detecting and eluding surveillance operatives, and presentation of surveillance evidence in court.

HCS 455 Current Topics in Global Security (3 Sem. Hrs.)

This course will engage its students with a broad range of global political topics implicated in the challenging security environment of the 21st century. Beginning with an intensive survey of the disciplinary approaches to the study of security common throughout the 20th century, it quickly transitions into a topical course exploring contemporary security issues through multi- and interdisciplinary lenses. This methodological pluralism, a strength of security studies as a program of inquiry, will prepare students not only to contemplate security as a complex and contested concept in the language of the academy, but also to address discrete, pressing issues in the realm of practical public policy. Informed by theories of international relations, fundamental issues such as the globalization of security studies and evolving relationships between security and environmental, economic, and social issues are critically explored.

HCS 460 Threat System Management (3 Sem. Hrs.)

This course examines analytical and policy skills used to frame the issues of risk so that other participants in local, national and international policy processes will understand the global need for disaster reduction, and act in constructive ways. Topics include the scope of risk to human communities that is emerging on a global scale from natural and man-made disasters, a critical review of the consequences of terrorism for metropolitan regions around the world, policy issues involved in coping with the political, social and economic consequences of disasters, and the interdependence of these issues with other forms of development, the range of perspectives - scientific, economic, political, organizational and social - that are involved in understanding the consequences of disaster for human communities, the links between the vulnerability of communities to disaster and the consequences of political and economic instability that lead to civil conflict. In addition, decision making processes that illustrate the conflicting interests among multiple policy audiences in recovery from hypothetical disasters are also explored.

HCS 465 Senior Research Project (Capstone) (4 Sem. Hrs.)

Prerequisites: Senior standing and permission of instructor

This course provides a capstone experience for senior Homeland Security Majors. This course is available only to Homeland Security majors and is taken during their last term in the degree program. This course consists of four elements: (1) an observation experience at an office or agency engaged in the application of theories and concepts in a subfield of Homeland Security; (2) an approved thesis and issue paper on a contemporary issue facing homeland security leaders at the national, state, or local levels and presentation of this research to selected full-time faculty at Athens State University; (3) a supervised review of selected professional literature; and (4) a sufficient score on an externally validated exit exam. Students should consult with their academic advisor prior to registration for this course.

HCS 499 Special Topics in Homeland and Corporate Security (3 Sem. Hrs.)

This course is designed to provide homeland and corporate security and criminal justice students with a diverse wealth of knowledge in introductory type courses that will discuss, examine, and evaluate contemporary topics related to skilled and hands-on training in these related fields. This course will allow students to utilize innovative methods for applying fundamental knowledge related to homeland and corporate security and criminal justice with topics facing our society to examine new technological techniques, tools, and methods related to issues, policies, and procedures pertaining to each special topic course.

Health and Physical Education (HPE)

HPE 301 Theory of Coaching and Officiating (3 Sem. Hrs.) (Recommended for Physical Education majors only)

This course is designed to develop the knowledge of candidates regarding: Familiarity with basic philosophies, fundamentals, and rules that will cultivate keen observation and discussion of the sport. Emphases will be placed on effective methodology, strategic and theoretical elements, and motor skills leading to the development of championship teams. Additional content will include training and practice methodology, nutrition, and the psychology of motivating and uniting players as a team. A major purpose of this course is to prepare students with the basic competencies needed for interscholastic coaching and to provide an understanding of officiating mechanics. Developmentally appropriate variations can be applied for effectively coaching youth league, or collegiate teams. Opportunities will be provided to utilize technology to complete course assignments.

HPE 321 Analysis and Teaching of Rhythms and Dance (3 Sem. Hrs.) (Recommended for Physical Education majors only)

This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic rhythmic and dance skills and dance-related terminology. Specifically, the course is designed to prepare students to systematically analyze basic rhythms and dance skills. In addition, students will be provided with opportunities to teach a variety of rhythms and dances to students of varied backgrounds, ability levels and experiences. The course will also provide the students with an opportunity to participate and administer specific conditioning exercises, an opportunity to participate and administer specific cultural dances and integrative rhythms and dances, to construct developmentally appropriate rhythmic activities and dances, and an opportunity to analyze and implement specific competition strategies.

HPE 322 Analysis and Teaching of Individual Sports (3 Sem. Hrs.) (Recommended for Physical Education majors only)

This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic sport skills. Specifically, the course is designed to prepare candidates to systematically analyze badminton, tennis, and golf sport skills, and other outdoor leisure pursuits. In addition, candidates will be provided with opportunities to teach badminton, tennis, and golf sport skills. The course will also provide the candidates with opportunities to participate and administer specific conditioning exercises, opportunities to participate and administer specific sport skill drills, opportunities to analyze and implement specific game strategies or culminating activities to other candidates. Opportunities will be provided to utilize technology to complete course assignments.

HPE 323 Aquatics and First Aid/CPR/AED (3 Sem. Hrs.) (Special Course fee)

(Recommended for Physical Education majors, wellness majors, or students seeking an additional health endorsement)

A course dealing with the analysis of movement involved in the performance of a variety of aquatics and lifesaving techniques. This course provides training in the procedures of administering first aid and CPR. American Red Cross Certification is awarded for the successful completion of this course.

- HPE 324 Analysis and Teaching of Team Sports (3 Sem. Hrs.) (Recommended for Physical Education majors only)**
Prerequisite: HPE 322 and 429
Field experience is required. This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic sport skills and enhance their ability to teach specific sport skills. Specifically, the course is designed to prepare students to systematically analyze basketball, volleyball, and soccer sport skills. Students will be provided with opportunities to teach basketball, volleyball, and soccer sport skills. Students will perform and administer conditioning exercises, perform and administer sport skill drills, and analyze and implement game strategies and culminating activities.
- HPE 325 Kinesiology (3 Sem. Hrs.) (Also listed as HWM 325)**
Prerequisite: BIO 201 or BIO 202 or BI 361/361L
This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic biomechanical concepts related to human performance. The course will provide the student with background, meaning, and significance associated with the various scientific principles impacting the body's ability to adjust to the demands of physical activity. A number of biomechanical topics will be considered, including the anatomical planes and axes of the human body, the laws of motion, the muscles that produce motion, and the forces that impact movement. It is designed to allow for the utilization of technology in the preparation of daily assignments, lab assignments, data analyses, and class presentations.
- HPE 326 History and Principles of Physical Education (3 Sem. Hrs.) (Recommended for Physical Education majors only)**
This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic historical aspects of physical education and sport. The course is designed to provide the student with an overview of the body of knowledge encompassing the discipline of physical education. The candidate will be exposed to the philosophical, the historical, the psychological, the biological, the sociological, and the physiological perspectives of physical education, exercise science and sport. Careers and professional considerations in physical education, exercise science and sport and the issues, challenges and the future of physical education, exercise science and sport will be studied. Candidates are provided the opportunity to observe, analyze, and reflect on the differences in policies and procedures related to a variety of public school physical education programs and activities directed at the improvement of teaching and learning to meet the needs of all students.
- HPE 327 Physiology of Exercise (3 Sem. Hrs.) (Also listed as HWM 327)**
This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of physiological concepts associated with human performance. The course will provide the candidate with background, meaning, and significance associated with the body's ability to adjust to the demands of physical activity. A number of human performance topics will be considered, including the impact of physical activity on the cardiovascular system, the muscular system, the respiratory system, the digestive system, and the endocrine system. It is designed to allow for the utilization of technology in the preparation of daily assignments, lab assignments, data analyses, and class presentations.
- HPE 333 Care and Prevention of Athletic Injuries (3 Sem. Hrs.) (Lab fee)**
(Recommended for Physical Education majors only or approval of instructor)
This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic methods utilized to prevent, care, and rehabilitate athletic injuries. In addition, the course will provide the candidate with background, meaning, and significance associated with the most common athletic injuries, their anatomical and physiological associations, and their method of treatment. A number of topics will be considered, including basic anatomical structures, common injuries, basic preventative measures, basic treatment techniques, and basic information related to the role and responsibility of an athletic trainer. Opportunities will be provided to better understand the different needs of athletes and/or students.
- HPE 350 Adapted Physical Education and Sports (3 Sem. Hrs.) (Recommended for Physical Education majors only or approval of instructor)**
A course designed to provide students with the information necessary to understand, evaluate, and develop programs of physical activities to meet the special needs, interests, and abilities of exceptional children and youth. Class will interact with exceptional students at field sites. **Course includes Lee v. Macon "Positive Behavioral Supports" and "Makes Sense Strategies" training as required by the Alabama State Department of Education.**
- HPE 354 Contemporary Health (3 Sem. Hrs.) (Also listed as HWM 354)**
This course emphasizes concepts associated with healthy lifestyle practices. Specifically, nutrition topics and basic physical fitness concepts will be discussed and students will engage in a variety of physical activities. The course is designed around a variety of concepts including: physiological and psychological health, stress factors, physical fitness, nutrition, weight control, products of dependence, infectious diseases, accident prevention, stress management, and lifestyle choices.
- HPE 355 Health-Related Fitness and Nutrition (3 Sem. Hrs.) (Lab fee) (Also listed as HWM 355)**
(Meets Major prerequisite Health and Physical Education requirement for education majors with approval of instructor)
This course deals with the development of cardiovascular endurance, muscle strength, flexibility, nutrition, and appropriate body composition as these elements contribute to health-related fitness. The course also provides the student with the opportunity to participate in an exercise program which emphasizes cardiovascular endurance, muscular strength, and flexibility.
- HPE 356 Health Promotions (3 Sem. Hrs.) (Also listed as HWM 356)**
This course aims to provide students with competencies to assess individual and community needs, plan and implement health education programs, and evaluate effectiveness of health education programs. This seminar concentrates on the most fundamental of all health education skills -the ability to develop, plan, fund/budget, implement, and evaluate programs. Skills most emphasized in this

class are needs assessment and program evaluation. To facilitate progress toward the different professional objectives of students, students are encouraged to discuss throughout the semester their own program development projects.

- HPE 357 Health Promotion for the P-12 Student (3 Sem. Hrs.)**
This course aims to provide students with competencies to assess individual, school and community needs, plan and implement health education curriculum, instruction and programs, and evaluate effectiveness of health education programs.
- HPE 390 Curriculum and Instruction in Health Education I (3 Sem. Hrs.)**
Prerequisite: HPE 429
Field experience is required. This course provides an overview of health curriculum with a focus on teaching methods and differentiating instruction for a variety of learning styles. This course includes unit and lesson development, opportunities for instruction, and guidelines for maintaining professional growth. Explores current research in teaching techniques, motivational strategies, and assessment of learning within a diverse population.
- HPE 400 Organization and Administration of Physical Education (3 Sem. Hrs.) (Recommended for Physical Education majors only)**
This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic theoretical and practical information about specific aspects of the process of organizing and administering both physical education and athletic programs. The course will emphasize a number of management topics, including: role of management, patterns of management structure, components of sound programs, budget design, and program evaluation.
- HPE 401 Measurement and Evaluation (3 Sem. Hrs.) (Also listed as HWM 401)**
This course is designed for the purpose of providing Health Science, Physical Education, Health and Wellness Management, and Public Safety and Health Administration majors with opportunities to increase their knowledge and understanding of techniques utilized to administer, score, and analyze the results of health science, health and safety administration, human performance, and physical education tests. A number of topics will be considered, including basic statistical concepts, techniques utilized in test administration, techniques utilized in data collection, and techniques utilized in data analysis.
- HPE 410 Assessment in Health and Physical Education (3 Sem. Hrs.)**
This course provides preservice teachers with an understanding of assessment strategies and evaluation techniques traditionally used in health and physical education classrooms. This course provides the opportunity to align instructional objectives and outcomes with assessment, administer various motor skill and physical fitness assessments, create and implement developmentally appropriate assessments, and utilize computer applications associated with these assessments.
- HPE 421 Curriculum and Instruction in Health Education II (3 Sem. Hrs.)**
Prerequisite: HPE 390
Field experience is required. This course is for students seeking to teach health education. Course content will provide learners with an opportunity to learn health content, locate and use resource materials, plan and organize instruction, and prepare teaching units and lesson plans for health education in secondary school settings. The course will also cover the role of health education and the components of a comprehensive school health program, characteristics of secondary students, instructional management, and health education advocacy.
- HPE 428 Early Childhood and Elementary Physical Education Curriculum (1 Sem. Hr.)**
This course is designed to provide early childhood, elementary and elementary/collaborative education majors with an understanding of how movement education relates to an individual child's personal development - intellectually, emotionally, socially, and physically. This course will prepare teacher candidates to plan age-appropriate physical activities and design developmentally appropriate motor skill experiences for young children. Pedagogical principles and instructional techniques in physical education will be incorporated with emphasis on fundamental movement and movement concepts taught through the contexts of rhythms and dance, games, and gymnastics.
- HPE 429 Early Childhood and Elementary Physical Education Curriculum (3 Sem. Hrs.)**
Prerequisite: ED 302
Field experience is required. This course is designed to provide early childhood, elementary, elementary/collaborative, and physical education majors with an understanding of how movement education relates to an individual child's personal development—intellectually, emotionally, socially, and physically. This course will prepare teacher candidates to plan age-appropriate physical activities and design developmentally appropriate motor skill experiences for young children. Pedagogical principles and instructional techniques in physical education will be incorporated with emphasis on fundamental movement and movement concepts taught through the contexts of rhythms and dance, games, and gymnastics.
- HPE 430 Teaching, Assessment & Management of PE in Elementary (3 Sem. Hrs.) (Lab fee)**
(Recommended for Physical Education majors only, and that students take the following courses prior to registering for this course: HPE 321, HPE 322, HPE 324, and HPE 429)
Prerequisite: Admission to the Teacher Education Program
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. Field experience is required. This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of source materials, plan and organize instruction, select suitable activities, and prepare teaching units and lesson plans for physical education in the elementary school. The course will provide the candidates with an opportunity to select, construct, and administer student assessment instruments, observe and analyze movement, and recognize and evaluate teacher effectiveness. In addition, the course will also provide the student with an opportunity to design and implement a sequential physical education program based on the *Alabama Course of Study* and implement lessons in a variety of school settings.
- HPE 431 Motor Development and Physical Activities (3 Sem. Hrs.)**
The influence of various tissues (i.e., muscle, bone, adipose), and coordinated neural function are central concerns of this course.

Physical activities intended to enhance the physical and motor growth and development of young children are examined. The relationship of physical and motor growth and development to all other aspects of human development is studied.

- HPE 440 Teaching, Assessment & Management of PE in High School (3 Sem. Hrs.) (Lab fee)**
(Recommended for Physical Education majors only, and that students take the following courses prior to registering for this course: HPE 321, HPE 322, HPE 324, and HPE 429)
Prerequisite: Admission to the Teacher Education Program
Field experience is required. This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of source materials, plan and organize instruction, select suitable activities, and prepare teaching units and lesson plans for physical education in the high school. The course will cover the following topics: role of physical education in the high school, characteristics of high school students, planning for instruction, instructional management, and selection of learning activities. Candidates will be provided with opportunities to teach physical education lessons to public school students.
- HPE 450 Introduction to Epidemiology (3 Sem. Hrs.) (Also listed as HWM 450)**
Epidemiology is the study of the distribution of disease and other health events in a population. This course will discuss the general field of epidemiology, but will focus on behavioral epidemiology, specifically the field of physical activity epidemiology. Students in this course will learn how the methods of epidemiology are being used to scientifically confirm that physical inactivity is a burden on public health and what can be done about it.
- HPE 460 Directed Study/Research in Physical Education (1-3 Sem. Hrs.)**
To be offered on occasion of student need and may be taken one to three times.
- HPE 488 Internship in Physical Education, P-12 (6-12 Sem. Hrs.) (Teaching Internship fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.
- HPE 490 Internship in Health (6-12) and Physical Education (P-12) (6-12 Sem. Hrs.) (Teaching Internship Fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

Health Science (HS)

- HS 320 Biomedical Ethics (3 Sem. Hrs.) (Also listed as PH 320)**
(Fulfills General Education Area II Humanities)
The course is designed to create a greater understanding of modern ethical issues in the biomedical field. Key topics will include: research on human and animal subjects, stem-cell research, genetic engineering, abortion, euthanasia, issues of justice, healthcare access, and confidentiality. The course begins with an overview of ethical theory and principle, and then explores the practical issues relating to biomedical ethics.
- HS 355 Health Policy in the U.S. (3 Sem. Hrs.)**
This course evaluates health as a social issue and reviews major medical service programs of U.S. governments, such as Medicare and Medicaid. Much of the course focuses on the political and economic aspects of current and proposed health care policies.
- HS 380 Essentials of Health Care Finance (3 Sem. Hrs.)**
This course is an introduction to financial administrative functions of healthcare organizations at the office, department and service level as well as budgeting and cost analysis for operations and capital expenditures. It also provides an overview of unique healthcare administrative practices, reimbursement issues and methodologies in the healthcare industry.
- HS 400 Public Safety and Health Education (3 Sem. Hrs.)**
This course surveys the development and current state of training and education for selected safety and health related professions and "paraprofessional" fields. The focus of the course will be on the development of professional education in allied health and safety fields, and students will be able to pursue research regarding education and training programs from particular safety and health disciplines and paraprofessional fields.
- HS 447 Public Health Concepts and Systems (3 Sem. Hrs.)**
This course is designed for the purpose of providing students with opportunities to increase their knowledge and understanding of the public health system and the critical issues facing today's public health agencies.
- HS 451 Environmental Health and Regulation (3 Sem. Hrs.) (Also listed as OHSM 451)**
This course provides an in-depth examination of the creation, development, and operations of governmental processes and agencies at all levels relating to environmental awareness and protection activities in the public sector. The interactions among the historical development of environmental awareness in America, the emergence of the Environmental Movement and advocacy groups, and various governmental actors are examined. The course examines governmental responses in terms of the creation of environmentally-focused agencies, passage of legislation, and administrative rule-making and regulation.

- HS 455 Health Care Administration Internship (3 Sem. Hrs.)**
Prerequisite: Permission of advisor
 This internship places students in selected healthcare settings supervised by experienced preceptors. Students are exposed to day-to-day administrative operations and participate in organizational projects. Students apply didactic learning to healthcare organization environments. Activities focus on the development of problem-solving, effective communication, and research skills.
- HS 465 Senior Research Project (4 Sem. Hrs.)**
Prerequisite: Permission of instructor
This capstone course should be taken during or near the time of the student's final semester. This course consists of the following three important academic activities: (1) a comprehensive exit exam that addresses discipline specific topics, (2) a major research paper, developed in consultation with the professor, that addresses discipline specific research questions/research problems, and (3) an oral presentation that addresses the major findings associated with the senior research paper to other students in the class and faculty members.
- HS 481 Health Care Quality Assurance, Risk Management and Utilization Review (3 Sem. Hrs.)**
 This course provides an overview of quality assurance, risk management of the organization, and administration of health care delivery systems in the United States. It examines the history, roles, and interactions of the various providers, consumers, and governments in the field of quality assurance. Topics include: concepts of the monitoring and evaluation of the quality, timeliness and appropriateness of patient care and services provided in health care organizations; overview of regulatory guidelines and industry standards; current issues in quality measurement and outcomes, as well as risk management, utilization review, patient satisfaction, medical errors, patient safety and data mining.

Humanities (HU)

- HU 301 Introduction to Individualized Degree Program (3 Sem. Hrs.)**
Individualized Degree Program (formerly Liberal Studies) majors should take this course in the first semester. This is a course in "learning-how-to-learn" and "learning-how-to-plan-professionally". It is designed to help students understand what a liberal arts education means, and to design their plan for graduation and beyond. It is offered as the first of the required core series of two courses for the Individualized Degree Program major, as an online course, and as a foundation for the Capstone course. Students study Adler's and Van Doren's How to Read a Book, and Adler's How to Speak and How to Listen, as well as develop a preliminary Professional Development Plan from self-analysis of what the student wants to achieve in life. The self-analysis will be done through the book Marketing Yourself. Each week students also do a written exercise to practice the techniques they are learning for analyzing complicated texts and talks across various genres and disciplines.
- HU 313 Beginning Spanish Conversation and Culture I (3 Sem. Hrs.)**
 This course is designed for students with no previous expertise in Spanish and is intended to enable the student to recognize and speak Spanish in a practical manner. Emphasis is given to language skills necessary for conducting business and successful mobility in Spanish-speaking countries or communities.
- HU 314 Beginning Spanish Conversation and Culture II (3 Sem. Hrs.)**
Prerequisite: HU 313
 This course is a continuation of Beginning Spanish Conversation I, and is intended to enhance the student's ability to recognize and speak Spanish in a practical manner. Emphasis is given to language skills necessary for conducting business and successful mobility in Spanish-speaking countries or communities.
- HU 317 Beginning German Conversation and Culture I (3 Sem. Hrs.)**
 This course is designed for students with no previous expertise in German and is intended to enable the student to recognize and speak German in a practical manner. Emphasis is given to language skills necessary for conducting business and successful mobility in German speaking countries or communities.
- HU 318 Beginning German Conversation and Culture II (3 Sem. Hrs.)**
Prerequisite: HU 317
 This course is a continuation of Beginning German Conversation I. It is intended to enhance the students' ability to recognize and speak German in a practical manner. Emphasis is given to language skills necessary for conducting business and successful mobility in German-speaking countries or communities.
- HU 330 Landmarks of Civilization (3 Sem. Hrs.) (Also listed as HY 330)**
(Fulfills General Education Area II Humanities)
(Occasional lab time is required.) This course covers the classical world to present. It is a review of selected examples of human kind's creative achievements in drama, literature, philosophy, art, and music. This course is designed to demonstrate the integration of human knowledge. It stresses expository writing and critical thinking.
- HU 450 Individualized Degree Program Capstone (3 Sem. Hrs.)**
 This capstone seminar for the Individualized Degree Program (formerly Liberal Studies) major, which must be taken during a student's final semester as a senior, will consist of writing and information literacy assignments that will serve to bring a focus to each individual student's experience as an Individualized Degree Program major.

Health and Wellness Management (HWM)

- HWM 325 Kinesiology (3 Sem. Hrs.) (Also listed as HPE 325)**
Prerequisite: BIO 201 or BIO 202 or BI 361/361L

This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of basic biomechanical concepts related to human performance. The course will provide the student with background, meaning, and significance associated with the various scientific principles impacting the body's ability to adjust to the demands of physical activity. A number of biomechanical topics will be considered, including the anatomical planes and axes of the human body, the laws of motion, the muscles that produce motion, and the forces that impact movement. It is designed to allow for the utilization of technology in the preparation of daily assignments, lab assignments, data analyses, and class presentations.

HWM 327 Physiology of Exercise (3 Sem. Hrs.) (Also listed as HPE 327)

This course is designed for the purpose of providing Physical Education majors with an opportunity to increase their knowledge and understanding of physiological concepts associated with human performance. The course will provide the candidate with background, meaning, and significance associated with the body's ability to adjust to the demands of physical activity. A number of human performance topics will be considered, including the impact of physical activity on the cardiovascular system, the muscular system, the respiratory system, the digestive system, and the endocrine system. It is designed to allow for the utilization of technology in the preparation of daily assignments, lab assignments, data analyses, and class presentations.

HWM 354 Contemporary Health (3 Sem. Hrs.) (Also listed as HPE 354)

This course emphasizes concepts associated with healthy lifestyle practices. Specifically, nutrition topics and basic physical fitness concepts will be discussed and students will engage in a variety of physical activities. The course is designed around a variety of concepts including: physiological and psychological health, stress factors, physical fitness, nutrition, weight control, products of dependence, infectious diseases, accident prevention, stress management, and lifestyle choices.

HWM 355 Health-Related Fitness and Nutrition (3 Sem. Hrs.) (Lab fee) (Also listed as HPE 355)

(Meets Major prerequisite Health and Physical Education requirement for education majors with approval of instructor)

This course deals with the development of cardiovascular endurance, muscle strength, flexibility, nutrition, and appropriate body composition as these elements contribute to health-related fitness. The course also provides the student with the opportunity to participate in an exercise program which emphasizes cardiovascular endurance, muscular strength, and flexibility.

HWM 356 Health Promotions (3 Sem. Hrs.) (Also listed as HPE 356)

This course aims to provide students with competencies to assess individual and community needs, plan and implement health education programs, and evaluate effectiveness of health education programs. This seminar concentrates on the most fundamental of all health education skills -the ability to develop, plan, fund/budget, implement, and evaluate programs. Skills most emphasized in this class are needs assessment and program evaluation. To facilitate progress toward the different professional objectives of students, students are encouraged to discuss throughout the semester their own program development projects.

HWM 401 Measurement and Evaluation (3 Sem. Hrs.) (Also listed as HPE 401)

This course is designed for the purpose of providing Health Science, Physical Education, Health and Wellness Management, and Public Safety and Health Administration majors with opportunities to increase their knowledge and understanding of techniques utilized to administer, score, and analyze the results of health science, health and safety administration, human performance, and physical education tests. A number of topics will be considered, including basic statistical concepts, techniques utilized in test administration, techniques utilized in data collection, and techniques utilized in data analysis.

HWM 450 Introduction to Epidemiology (3 Sem. Hrs.) (Also listed as HPE 450)

Epidemiology is the study of the distribution of disease and other health events in a population. This course will discuss the general field of epidemiology, but will focus on behavioral epidemiology, specifically the field of physical activity epidemiology. Students in this course will learn how the methods of epidemiology are being used to scientifically confirm that physical inactivity is a burden on public health and what can be done about it.

History (HY)

HY 302 Alabama History (3 Sem. Hrs.)

This course looks at the history of Alabama and its southern heritage from early times to the present. It is a study of present day problems and an examination of the space age as it has effected Alabama's development are included.

HY 303 The South In United States History (3 Sem. Hrs.)

(Satisfies the American requirement for a B.A. or minor in history as well as elective requirement for the minor and American History for a B.S. in Social Science.) This course is a study of the post-Reconstruction South. It is a survey of its historical, economic, and social development as a distinct region of the United States.

HY 304 Revolutionary America (3 Sem. Hrs.)

(Fulfills General Education Area IV History)

(Satisfies the American requirement for a B.A. or minor in history as well as elective requirement for the minor and American History for a B.S. in Social Science.) This course is a survey of Anglo-American colonial history, revolutionary developments, and the writing and ratification of the Constitution of the United States.

HY 305 American Expansion in the 19th Century (3 Sem. Hrs.)

(Fulfills General Education Area IV History)

(Satisfies the American requirement for a B.A. or minor in history as well as elective requirement for the minor and American History for a B.S. in Social Science.) This course covers the early years of the republic rise of sectionalism, and the forces of industrialization, urbanization, and immigration in United States history. Also explored is westward migration, the quest for social justice including the major reform movements of the century and the interdependence of the people of the United States.

HY 306 20th Century America (3 Sem. Hrs.)

(Fulfills General Education Area IV History)

(Satisfies the American requirement for a B.A. or minor in history as well as elective requirement for the minor and American History

for a B.S. in Social Science.) This course is an examination of the political, social, cultural, and economic developments in 20th-century America. Emphasis is placed on the Progressive Movement, role of the United States in world affairs, the Interwar period, and developments after World War II, particularly the Vietnam Era and its aftermath.

- HY 307 American Constitutional Law (3 Sem. Hrs.) (Also listed as PO 307 and CJ 307)**
This course examines the text of the nation's primary law and key decisions of the U.S. Court interpreting certain phrases. Organization and operation of the Court are also covered. This course focuses on separation of powers, federalism, interstate commerce, taxation, the contract clause and the takings clause. This course provides a foundation in American constitutionalism for students who plan to attend law school or teach social studies in the secondary schools.
- HY 309 American Civil War and Reconstruction (3 Sem. Hrs.)**
(Satisfies the American requirement for a B.A. or minor in history as well as elective requirement for the minor and American History for a B.S. in Social Science.) This course covers the causes, events, and results of the Civil War. Also political, economic, and social aspects of Reconstruction are discussed.
- HY 310 A History of American Religion (3 Sem. Hrs.)**
(Satisfies the American requirement for a B.A. or minor in history as well as elective requirement for the minor and American History for a B.S. in Social Science.) The role of religion in America's development is the focus of this course. Each period from European settlement to the triumph of the people over their land at the end of the 19th century and through the tribulations of the two World Wars is examined. Theology is explored only when it directly explains particular historical events.
- HY 312 Early Modern Europe, 1610-1789 (3 Sem. Hrs.)**
(Fulfills General Education Area IV History)
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a survey of European history during the seventeenth and eighteenth centuries including the Scientific Revolution, the establishment of the great empires of trade, the Enlightenment, and the rise of Russia.
- HY 313 Revolutionary Europe (3 Sem. Hrs.)**
(Fulfills General Education Area IV History)
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a study of the background and the events of the French Revolution and the Napoleonic Period (1789-1815). Emphasis is placed on the revolutionary wellsprings of the contemporary Western world.
- HY 314 19th Century Europe (3 Sem. Hrs.)**
(Fulfills General Education Area IV History)
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a study of the social, political, and industrial forces which shaped modern Europe between 1815 and 1914. Particular attention is given to the development of large state and business bureaucracies, the spread of industry and steam transportation, European imperialism, the rise of totalitarian ideologies, and the increase in popular participation in political and social events.
- HY 315 20th Century Europe (3 Sem. Hrs.)**
(Fulfills General Education Area IV History)
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) The major themes of the course are the rise and demise of totalitarian dictatorships, the continued spread of democracy, the appearance of the welfare state, and the general improvement of the European standard of living since 1918.
- HY 322 England and Britain Since 1688 (3 Sem. Hrs.)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a survey of English and British history from 1688 to the present. The course encompasses political, constitutional, socioeconomic, cultural, intellectual, and imperial movements.
- HY 323 Tudor and Stuart Britain, 1485-1714 (3 Sem. Hrs.)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a survey of the political, religious, social and economic history of England and the British Isles during the sixteenth and seventeenth centuries.
- HY 324 Nazi Germany (3 Sem. Hrs.)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) The course is designed to provide students with a comprehensive, sophisticated account and analysis of the Nazi period in German history. It will explore issues related to the content and implications of Nazi ideology, the role of Hitler, the complicity of elites such as the Junkers, the military the churches and big business. The course will examine the origins both of the Nazi movement and of the conditions in Germany that led to the movement's rise to power. It will provide a detailed analysis of the consequences of the implementation of Hitler's policies in the forms of genocide, military conquest, and defeat.
- HY 325 America's Vietnam War (3 Sem. Hrs.)**
(Satisfies the American or Non-Western requirement for a B.A. or minor in history as well as elective requirement for the minor and American or Non-American History for a B.S. in Social Science.) This course explores America's experience in Vietnam from the 1940s to the 1970s in depth. This course grapples with this strange and terrible war as it attempts to answer questions such as, why did the United States make such a vast commitment to a part of the world with such little importance to its own national interests, what was the United States trying to accomplish in Vietnam, and why did the United States fail to fulfill its intentions in Vietnam.
- HY 330 Landmarks of Civilization (3 Sem. Hrs.) (Also listed as HU 330)**
(Fulfills General Education Area II Humanities)

(Does **not** satisfy the requirements for a B.A. or minor in history.) (**Occasional lab time is required.**) This course covers the classical world to present. It is a review of selected examples of human kind's creative achievements in drama, literature, philosophy, art, and music. This course is designed to demonstrate the integration of human knowledge. It stresses expository writing and critical thinking.

- HY 334 Middle East (3 Sem. Hrs.)**
(Satisfies the Non-Western requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a survey of the historical and cultural characteristics of those countries from Mauritania and Morocco to Afghanistan. Emphasis is placed on the historical development and Arabization of the region, current socio-economic problems, the strategic significance of the area, and its relations to the rest of the world.
- HY 335 Past Imperfect: A Study of World War II Film and History (3 Sem. Hrs.)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is designed to introduce the student to the topic of film and history. Attention will focus on World War II with a selection of representative prewar, wartime, and postwar films.
- HY 336 A History of Criminal Justice (3 Sem. Hrs.) (Also listed as CJ 336)**
(Does not satisfy the requirements for a B.A. or minor in history.) The subject of this course is the historical development of American criminal justice philosophy, institutions, and practices in the political, cultural, and social context of the Western world and the United States from ancient Hebraic Law to the present. Emphasis is on the contribution and effect of the Enlightenment, Puritanism, American Revolution and Constitution, and frontier experience on the origins and evolution of the American administration of justice.
- HY 342 Modern Russia (3 Sem. Hrs.)**
(Satisfies the European or Non-Western requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course examines the history, geography, and current political system in Russia.
- HY 350 Warfare in the Western World (3 Sem. Hrs.)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course covers the history of military operations in the West from the 17th century to the present with concentration on selected campaigns in major wars, political and military leadership and the waging of war, and the formulation of war aims and strategy.
- HY 351 Columbus and the Age of Discovery, 1400-1600 (3 Sem. Hrs.)**
(Satisfies the American, European or Non-Western requirement based on a topic for a B.A. or minor in history as well as elective requirement for the minor and American or Non-American History for a B.S. in Social Science.) This course is a survey of European contacts with and explorations of Africa, the Americas, and Asia during the fifteenth and sixteenth centuries.
- HY 411 Age of the Reformation, 1350 – 1610 (3 Sem. Hrs.) (Also listed as RE 411)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a survey of the history of church and state in Europe from the Great Schism through the Protestant Reformation to the eve of the Thirty Years War.
- HY 412 Modern China (3 Sem. Hrs.)**
This course in modern Chinese history examines events and/or periods in China's history from 1644 to the current period. The period from 1644 to the Opium Wars will be covered briefly and most of the course will focus on the period from the Opium Wars forward. Within historical context, students will also study, read, discuss and write on challenges that contemporary China faces.
- HY 415 Ancient Greece (3 Sem. Hrs.)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Sciences.) This course is a detailed study of the history of ancient Greece from the Bronze Age to the end of the Hellenistic period. The emphasis in the course is on the cultural, political, and social history of the Greeks. Special attention is given to the rise of the city-state, warfare in the Greek world, the development of democracy, the Greek intellectual achievement, and the reading of primary sources.
- HY 420 Fringe History, Pseudoscience, and Popular Culture (3 Sem. Hrs.)**
(Satisfies the American, European, or Non-Western requirement based on a B.A. or a minor in history as well as elective requirements for the minor and American or Non-American History for the B.S. in Social Science.) This class will survey the phenomenon of fringe knowledge in modern culture. It will show how history and science are misused and twisted so that they appear to support highly speculative and often fantastical theories about the past. Examples from American, European, and World history will be investigated.
- HY 430 Globalization: Concepts and History (3 Sem. Hrs.) (Also listed as SS 430)**
(Satisfies the American, European, or Non-Western requirement based on a B.A. or a minor in history as well as elective requirements for the minor and American or Non-American History for the B.S. in Social Science.) Globalization is a phenomenon that in the last fifty years has come to be explicitly recognized in the worlds of politics, economics, and culture. It also has ancient roots. This course will investigate the history, historiography, themes, and concepts associated with globalization.
- HY 431 Human Expansion: History of Trade, Travel, Tourism, and Empire (3 Sem. Hrs.)**
(Satisfies the American, European, or Non-Western requirement based on a B.A. or a minor in history as well as elective requirements for the minor and American or Non-American History for the B.S. in Social Science.) Humans have moved around the earth since prehistoric times. Today they are moving and communicating more than ever before. This course will look at how and why people have moved around the world as individuals and as groups. It will specifically focus on the roles of trade, travel, tourism, and empire in human expansion throughout the earth. The history, historiography, themes, and concepts associated with human expansion will be examined in detail.
- HY 441 Special Topics in History (1 Sem. Hr.)**

- HY 442 Special Topics in History (2 Sem. Hrs.)**
HY 443 Special Topics in History (3 Sem. Hrs.)
Prerequisite: Permission of the instructor
 These courses will be offered in accordance with student demand or need. (HY 443 satisfies the American, European or Non-Western requirement based on topic for a B.A. or minor in history as well as elective requirement for the minor and American or Non-American History for a B.S. in Social Science.)
- HY 450 Materials and Methods of Teaching History and Social Sciences in Middle School/High School (3 Sem. Hrs.) (Also listed as SS 450)**
Prerequisite: Admission to the Teacher Education Program
 This course is intended to enhance the students' abilities to plan, implement, and evaluate instructional activities in teaching history and social sciences and to select and use appropriate materials and equipment. Knowledge of the history and social sciences curriculum and middle and high school student characteristics will be increased. Students will actively participate in demonstrating and modeling strategies and techniques. The role of research will be emphasized. This course does not satisfy requirements for any history major, minor, or general studies.
- HY 451 Senior History Seminar (3 Sem. Hrs.)**
 This capstone course, which must be taken during students' senior year, will provide students with an introduction to the main currents of historical scholarship in the modern era. We will examine various approaches to the past, the ways historical interpretations have changed, and how those changes are related to contemporary concerns. Upon successful completion of this course, students will understand how to formulate a thesis, gather and assess historical evidence, structure a research paper, and orally present the findings of their research. Like all history classes at Athens State University, this one increases students' awareness of our cultural heritage and helps them develop the research abilities for graduate work.
- HY 463 Fundamentals of Public History (3 Sem. Hrs.)**
 This course will focus on the professional nature of public history, the interpretation of history for diverse audiences, and the application of historical methods in the wider world. Combines reading and discussion, interaction with practicing professionals, and a possible experiential learning component.
- HY 464 Internship in Public History (3 Sem. Hrs.)**
HY 465 Internship in Public History (3 Sem. Hrs.)
Prerequisites: All students taking this course must be a History or Social Science major, classified as a senior with an institutional GPA of at least 2.5 and must have permission from the instructor
 These internships will provide an opportunity for students to conduct career exploration and build a record of experience in the field of public history, archives, or museology. History or Social Science majors are required to complete **at least** three hours of internship credit toward hours required for graduation. The registration deadline for these internships is at least a month prior to the first week of classes in the Fall and Spring semesters, and two weeks prior to the first week of classes in the Summer.

Information Systems Management (ISM)

- ISM 400 Information Management (3 Sem. Hrs.)**
Prerequisite: AC/MG 302
 This course provides an introduction to the language, concepts, structures and processes involved in the management of information systems including fundamentals of computer-based technology and the use of business-based software for support of managerial decisions. Emphasis is placed on managing information using databases.
- ISM 401 Systems Design Management (3 Sem. Hrs.)**
Prerequisite: AC/MG 302
 An introduction to the development of computer-based information systems in organizations. The knowledge gained through this course includes: the management of systems development projects; the organizational, political, social, and technical issues in systems development; the methods of development commonly used in organizations; and MIS careers in systems development. Students will learn the value of working in teams on systems analysis and design tasks, to use common modeling methods and technology, and to prepare system requirements and design documents. Emphasis is on management issues of systems analysis and design.
- ISM 402 Information Systems and Analytics (3 Sem. Hrs.)**
Prerequisite: AC/MG 302
 This course covers the programming and design skills needed to build database and spreadsheet-based decision support systems (DSS). Students will create databases to store data and provide an interface for human-computer interaction. Spreadsheet models will be developed to solve a number of common management science problems.
- ISM 403 Data Communications Management (3 Sem. Hrs.)**
Prerequisite: AC/MG 302
 This course provides the student with an understanding of the concepts and methods associated with telecommunications and distributed information systems. Students learn the fundamentals of data communications, including network architectures, communication protocols, transmission standards and media access control methods.
- ISM 404 Managing Information Resources (3 Sem. Hrs.)**
Prerequisite: AC/MG 302
 This course offers a survey of managerial and technical issues facing IS professionals. Class discussions focus on understanding how different organizations respond to the challenges of distributed processing, business process reengineering, managing the data utility, maintaining legacy systems, and other current trends. Analytical and communication skills are emphasized along with management issues.
- ISM 408 E-Commerce Systems Management (3 Sem. Hrs.)**

Prerequisite: AC/MG 302

This course examines electronic methods of delivering products, services, and exchanges in inter-organizational, national, and global environments. Information technology strategy and technological solutions for enabling effective business processes are considered.

ISM 441 Special Topics in Information Systems Management (3 Sem. Hrs.)

Prerequisite: AC/MG 302

This course explores current, advanced topics in Information Systems that are not covered in other courses. To be offered on occasion of student demand or need.

Information Technology (ITE)

ITE 301 Problem Solving With Computers (3 Sem. Hrs.)

ITE 301 may only be used by Computer Science or Information Technology majors to fulfill the required Area V Microcomputer Applications course. *Designed for non-computer science, non-Information Technology majors.* This course is designed to strengthen student's grounding in common computer terminology and applications. Students with minimal skills will learn to enhance their personal productivity and problem solving skills by applying information technologies to problem situations and by designing and using small information systems for individuals and groups. The course will be conducted through lecture, in-class computing laboratories, and out-of-class assigned problems and projects.

ITE 305 Networking Fundamentals (2 Sem. Hrs.) (Lab fee)

This course introduces the student to underlying concepts of data communication, telecommunications, and networking. The course focuses on terminology and technologies in current networking environments. The course also provides a general overview of field of networking as basis for continued study in field.

ITE 306 Local Area Networks (2 Sem. Hrs.) (Lab fee)

Prerequisite or Concurrent Enrollment: ITE 305

This course presents the latest concepts of local area network (LAN) technologies. It also provides a comprehensive introduction to the concepts, technologies, components, and acronyms inherent in today's local networking environments.

ITE 307 Wide Area Networks (2 Sem. Hrs.) (Lab fee)

This course provides conceptual and working knowledge of how LANs communicate over wide area. The course introduces telephony and the technology of switched-voice communications. The course also provides an understanding of how communication channels of public switched-telephone networks are used for data communication and how voice data communication have become integrated.

ITE 308 Network Architectures (2 Sem. Hrs.) (Lab fee)

Prerequisite or Concurrent Enrollment: ITE 307

This course outlines three important networking architectures in today's corporate environments: TCP/IP, SNA, and DNA. The major components and functions of each of these architectures are discussed, as well as methods used to connect different architectures. The course also provides concepts important to the field of Systems integration and conceptual basis for understanding network architecture.

ITE 313 Data Analysis and Visualization (3 Sem. Hrs.)

Prerequisite: MTH 265 or MA 331 or MA 431 or PS/SO 341 or GBA 305

This course provides an overview of the system and tools used to process, analyze, and visualize data. Topics include simple linear regression, multiple regression, analysis of variance, and statistical design of experiments. These topics are explored using a combination of scripting languages such as Javascript and Python and the statistical package R, with a focus on understanding how to use and interpret output from this software and to visualize results. Concepts are presented in context of real world examples from biology, psychology, sociology, and computer science.

ITE 315 Scripting Languages and System Administration (3 Sem. Hrs.)

Prerequisite: Computer programming course

This course is an in-depth study of the design of scripting languages and their applications. Scripting languages can be used to manipulate text and data using subtle and complex coding to automate many tasks. Students will learn to write simple scripts to automate system administration tasks using appropriate languages. This course explores the nature of scripting, the role of scripting languages, explores some of the popular scripting languages and their applications, and provides skills in scripting language design.

ITE 321 Systems Analysis and Design (3 Sem. Hrs.)

This course will provide an in-depth study of the Systems Development Life Cycle (SDLC) to include study system analysis fundamentals, information requirements analysis, the analysis process, the essentials of design, software engineering and implementation. A total quality management emphasis is stressed and computer-assisted systems engineering (CASE) tools are introduced. A project is required to show understanding of topics presented.

ITE 327 Database Systems (3 Sem. Hrs.)

Corequisite: ITE 327L Prerequisite: CS 317 with minimum grade of C

In this course, students are introduced to the design, implementation, and management of systems in a database environment. Emphasis will be placed on data models, normalization, and a relational query language. Other topics include: comparison of relational and object oriented models, data warehousing, and data mining.

ITE 327L Database Systems Lab (1 Sem. Hr.)

Corequisite: ITE 327 Prerequisite: CS 317 with minimum grade of C

In this course, students will have hands on experience in creating databases, applying SQL and more complex queries to run against developed databases. Students will also learn and implement different database programming techniques through hands on lab exercises.

- ITE 350 UX Design (3 Sem. Hrs.)**
User Experience Design (UXD or UX) is the process of enhancing user satisfaction by improving the usability, accessibility, and "delight" provided in the interaction between a user and product. It's about making apps intuitive, easy to use, and most of all - effective at solving problems. Throughout the course, students will be introduced to the major knowledge areas of UX Design.
- ITE 365 Visual Application Development (3 Sem. Hrs.) (Lab fee) (Also listed as CS 365)**
Prerequisites: *CS 318 with minimum grade of C; and ITE 327/327L*
This course introduces students to programming in visual, event-driven environments. Students learn concepts of visual programming and underlying design principles used in developing applications in visual programming environments. An emphasis will be placed on design of user interfaces, on-line documentation, input, and output components including menus, forms, queries, and reports.
- ITE 367 Enterprise Application Development (3 Sem. Hrs.) (Also listed as CS 367)**
Prerequisites: *CS 318 with minimum grade of C; and ITE 327/327L*
This course provides a broad background in the design, development, and integration of server-side enterprise application. Topics include an introduction to the Java programming language, using enterprise-level features of the Java platform such as servlets, Java Server Pages, and data access technologies. Students will be introduced to the architecture, design, and implementation of web applications, multi-tier application architectures, model-view-controller architecture patterns, database connectivity, and security considerations in the enterprise.
- ITE 371 Health Information Technology Concepts and Practices (3 Sem. Hrs.)**
Prerequisites: *ITE 321 and HCM 340*
The discipline of health information technology is introduced, including history, knowledge of health information technology, data management, vocabularies, standards and tools as applied in the support of health care delivery. The course provides foundation knowledge and understanding of the impact of information technology in the health care industry and vice versa. Attention is paid to the design, usage and acceptance of information technology applications. This course introduces students to the concepts and practices of health informatics. The coursework will introduce the concept of the Electronic Health Record (EHR), the underlying data model, and the technologies used to implement EHR in practices.
- ITE 382 Mobile Device Software Development (3 Sem. Hrs.) (Also listed as CS 382)**
Prerequisite: *CS 372*
This course is an introduction to mobile device programming for the iOS and Android mobile device platforms. Students will learn Swift, Objective-C, and Java programming languages for development on the two platforms, and the design patterns used to develop applications for the iPhone, iPad and Android device. We will discuss the core objects that make up iOS and Android Software Development Kits (SDKs) and consider the commonly used programming interfaces for building applications for mobile devices.
- ITE 405 Internetworking Devices (2 Sem. Hrs.) (Lab fee)**
Prerequisite: *ITE 306*
Prerequisite or Concurrent Enrollment: *ITE 307*
This is an advanced course intended for networking professionals and students who already grasp the general concepts of data communications and networking but would like a more detailed understanding of internetworking. Techniques and components for managing network growth and connecting disparate network architectures will be presented and solutions to internetworking problems will be developed.
- ITE 406 The Internet (2 Sem. Hrs.)**
Prerequisite or Concurrent Enrollment: *ITE 405*
This course familiarizes the student with the operation and function of the Internet. The course covers the underlying components and protocols that make up the Internet and the services provided. Internet tools will be used to illustrate concepts. The course also provides concepts necessary to establishing and maintaining Internet connectivity. Tools used to navigate and access information on the Internet will be studied.
- ITE 407 Network Processes and Protocols (2 Sem. Hrs.) (Lab fee)**
Prerequisite: *ITE 308*
This is an advanced course intended for networking professional and students who grasp the basic concepts of networking but would like to understand, in more detail, some of the major protocols controlling the flow of information between data communication layers and between cooperating processes on network nodes. Trace and analysis tools will be used to analyze the frames and packets traversing a network.
- ITE 408 Enterprise Network Design and Management (2 Sem. Hrs.) (Lab fee)**
Prerequisites or Concurrent Enrollment: *ITE 308 and ITE 407*
This is an advanced course intended for networking professionals and students who grasp basic concepts of networking but would like to understand methods used to analyze, design, and manage LANs and point-to-point networks. Exercises are geared toward learning techniques used to design and analyze networks.
- ITE 409 Network Security (3 Sem. Hrs.)**
Prerequisite: *ITE 308 or permission of instructor* **Corequisite:** *ITE 409L*
This course is a study of networking basics and security essentials with respect to information services provided over a computer network. The course covers the technical details of security threats, vulnerabilities, attacks, policies, and countermeasures such as firewalls, honeypots, intrusion detection systems, and cryptographic algorithms for confidentiality and authentication and the development of strategies to protect information services and resources accessible on a computer network.
- ITE 409L Network Security Lab (1 Sem. Hr.)** **Corequisite:** *ITE 409*
- ITE 420 Fundamentals of Information Security (3 Sem. Hrs.)**
Prerequisites: *CIS 202 or CIS 212 or CIS 213 or CIS 215 or CIS 251 or CIS 252 or CIS 255 or CIS 256 or CIS 285 or CS 305*

The focus of this course is managing security and building systems to remain dependable in the face of malice, error, or mischance. This course will focus on the tools, processes, and methods needed to design, implement, and test complete systems, and to adapt existing systems as their environment evolves. Students will use real-world case studies to gain practical experience in solving complex problems, like the ones encountered in industry. The course will focus on applying the methodology of security engineering to develop reliable, cost-effective, and easily maintainable systems. Students will also develop an understanding of how the business of security engineering can best be managed.

ITE 421 Digital Forensics (3 Sem. Hrs.) (Lab fee)

Prerequisite: ITE 420

This course covers the fundamentals of digital forensics, that is, the recovery and investigation of material found in digital devices, often in relation to computer crime. The focus of the course is on the technical aspects of a forensics investigation with an emphasis on: (1) legal considerations of the digital domain, (2) technical implications of the rules of evidence, (3) tools and techniques for computer and network forensics, (4) forensic data analysis, and (4) mobile device forensics. Students will gain hands-on lab experience in each of these areas of emphasis.

ITE 441 Systems Integration and Architecture (3 Sem. Hrs.)

Prerequisite: ITE 321

This course exposes students to the Information Technology (IT) hardware and systems software concepts. Topics include: computer hardware, operating systems, system software, hardware and software integration, operating procedures, system performance, security/safety, and compatibility. Student labs and hands-on activities will include: Windows, Unix, and Linux systems, system utilities and software tools.

ITE 442 Special Topics in Information Technology (1-3 Sem. Hrs.)

Prerequisite: Permission of instructor

These courses are to be offered on occasion of student demand or need. Topics which may be covered include special applications, networking, gaming, user interaction and cyber security. Course may be repeated as topics will vary.

ITE 450 Human-Computer Interaction (3 Sem. Hrs.)

Prerequisite: CS 318 or CS 307

This course covers interaction between modern computer interfaces and system users. Students examine user diversity and its impact on design of user interfaces. Techniques for task analysis, interface prototyping, and methods for using usability tests to evaluate effectiveness of human-computer dialogs are also covered. Emphasis is placed on the integration of human-computer interaction principles into software engineering life cycle. Theories, principles, and guidelines for interface development and testing are learned through design and development of prototypes for various types of user interfaces.

ITE 451 Software Engineering (3 Sem. Hrs.) (Lab fee) (Also listed as CS 451)

Prerequisites: CS 372, and MA 308, and senior standing, and permission of instructor

The course will familiarize the student with the entire software life cycle, spanning from the time of conception of the actual requirements, through the analysis, design, and development of the software. The course will study various methodologies of software engineering; i.e., the analysis and comparison of methods which use sound engineering principles to develop software that is reliable, cost-effective, and easily maintainable. The course will emphasize the concept of a software development team where students work on real-world software development projects to solve software problems for users.

ITE 452 Senior Software Engineering Project (3 Sem. Hrs.) (Also listed as CS 452)

Corequisite: UNV 400

Prerequisite: ITE 451 and permission of instructor

This course provides students with the opportunity to apply the knowledge and skills mastered in the information technology discipline through development of complex research or software projects. Emphasis is placed on the concept of software development teams to create project plans, software requirements, design specifications, test plans, and other written documentation for the selected research or software project. Student software teams also code, test, and integrate the software according to the requirements and design specifications produced. Technical walk through and software demonstrations are required at the completion of various milestones.

ITE 462 Directed Study/Special Information Technology Project (1-3 Sem. Hrs.)

Prerequisite: Permission of instructor

These courses are to be offered on occasion of student demand or need. The courses are designed to allow students majoring in information technology to pursue special projects of interest to both the student and instructor. Projects undertaken for these courses might well be continuations of projects begun in other courses. Course is repeatable up to a maximum of six semester hours.

ITE 471 Information and Communication Systems in Health Care (3 Sem. Hrs.)

Prerequisites: ITE 327/327L and ITE 371

This course is an applied introduction to the principles of hardware, software, and communications technology related to health care. The course emphasizes the information technologies to implement and maintain computerized medical billing and the design and implementation of system for health care data collection, storage, retrieval, security, presentation, and verification.

Logistics and Supply Chain Management (LSM)

LSM 300 Enterprise Systems and Business Processes (3 Sem. Hrs.) (Lab fee) (Also listed as ESM 300)

Prerequisite: AC/MG 302

Students will learn how enterprise software is used to manage the integration of business operations. Through a process-oriented view of the organization and its relationships with suppliers, customers, and employees, students study software that automates business processes and workflow. Procurement, production and sales logistics processes and their integration with Accounting and Human Resources are investigated. Students will experience ERP through hands-on lab exercises, and improve soft skills such as

writing, presenting, and team building through ERP project documentation and presentations.

- LSM 301 Introduction to Logistics and Supply Chain Management (3 Sem. Hrs.)**
Knowledge of Excel and Access is required. This course provides the student with an overview of logistics and supply chain management concepts from the acquisition process to provision of the end product or service to the consumer. These concepts include forecasting and integrating models of procurement, transportation, warehousing, materials handling and storage, global logistics, and information systems and strategy throughout the supply chain.
- LSM 320 Logistics and Distribution (3 Sem. Hrs.)**
Prerequisite: LSM 301
This course provides an introduction to concepts and technology that is associated with the planning and management of logistics activities. Areas that will be discussed will include inventory management, warehousing, transportation, customer service, and the technology and information systems that are necessary for appropriate decision-making.
- LSM 330 Logistics and Supply Chain Management in the Global Environment (3 Sem. Hrs.)**
This course examines issues in managing supply chains in both the current economy and the global environment by analyzing the logistics strategies and processes necessary to ensure students understand the design and operation of global supply chain networks. In addition, the course analyzes the principles of logistics activities in the global environment with special emphasis on transportation, global sourcing, customs issues, import-export opportunities, customs documentation, the role of government in international transactions, and similar issues.
- LSM 353 Project Management (3 Sem. Hrs.) (Also listed as ACM 353 and MG 353)**
An examination of the use of critical path method (CPM) and Program Evaluation Review Technique (PERT) on project planning and control.
- LSM 401 Logistics and Supply Chain Integration Techniques (3 Sem. Hrs.)**
Prerequisite: LSM 301
This course investigates the role of information management and decision support methods in the planning and management of supply chains and related processes. Specific areas include techniques and methods used in operations management; process analysis, network analysis, and the application of simulation and other technology systems.
- LSM 410 Logistics and Supply Chain Strategy (3 Sem. Hrs.)**
Prerequisites or Concurrent Enrollment: LSM 320 and LSM 330 and LSM 401
This course requires students to integrate concepts learned in an analysis of a logistical problem or issue and present a recommendation to solve the issue. This course is considered the capstone experience. Students will demonstrate proficient oral and written communication skills, decision-making abilities, problem solving skill, leadership and team skills, and a knowledge of current logistics and supply chain management issues.
- LSM 461 Internship in Logistics (1 Sem. Hr.) (At least 50 hours of work-based experience is required)**
LSM 462 Internship in Logistics (2 Sem. Hrs.) (At least 100 hours of work-based experience is required)
LSM 463 Internship in Logistics (3 Sem. Hrs.) (At least 150 hours of work-based experience is required)
Prerequisites: MG 320 or GBA 300; compliance with College of Business Internship Policies and Procedures.
This internship in the field of Logistics and Supply Chain Management is designed to provide the student with practical work experience leading to a potential career-field in business.

Mathematics (MA)

- MA 301 Precalculus Algebra (3 Sem. Hrs.) (Lab fee)**
Prerequisite: Intermediate College Algebra or higher level math course with a grade of C or higher (Fulfills General Education Area III Mathematics)
This course is designed for students preparing to take the calculus sequence. Topics covered include a review of the real number system and operations with algebraic expressions, solving equations and inequalities, functions and graphs, rational and polynomial functions, and applications to a wide variety of fields such as biology and business.
- MA 302 Precalculus Trigonometry (3 Sem. Hrs.) (Lab fee)**
Prerequisite: MTH 112 or MA 301 with a grade of C or higher (Fulfills General Education Area III Mathematics)
This course is designed for students preparing to take the calculus sequence. Topics covered include trigonometric and inverse trigonometric functions, exponential and logarithmic functions, transcendental equations, complex numbers, DeMoivre's Theorem, polar coordinates, and applications to a wide variety of fields.
- MA 303 Calculus I (4 Sem. Hrs.) (Lab fee)**
Prerequisites: (MTH 112 or MA 301 with grade of C or higher) and (MTH 113 or MA 302 with grade of C or higher)
Topics include a review of functions, limits, differentiation, applications of differentiation, and an introduction to integration.
- MA 304 Calculus II (4 Sem. Hrs.) (Lab fee)**
Prerequisite: MTH 125 or MA 303 with a grade of C or higher
This course is the second course of the three-semester sequence. Topics include applications of integration, techniques of integration, sequences, series, polar coordinates and parametric equations.
- MA 305 Calculus III (4 Sem. Hrs.) (Lab fee)**
Prerequisite: MTH 126 or MA 304 with a grade of C or higher
This course is the final course of the three-semester sequence. Topics include vectors, vector calculus, partial derivatives, gradients,

multiple integrals and line integrals.

- MA 308 Discrete Mathematics (3 Sem. Hrs.) (Lab fee)**
Prerequisites: *MTH 112 or MTH 113 or MA 301 or MA 302 with a grade of C or higher*
Topics include elementary propositional logic, sets, relations, functions, number systems and elementary number theory concepts, counting methods, mathematical induction, graphs and trees, and proof techniques applied to these mathematical content areas.
- MA 309 Business Calculus (3 Sem. Hrs.)**
Prerequisite: *MTH 112 or MA 301 with a grade of C or higher*
(Cannot be used to satisfy requirement for upper-level mathematics elective for mathematics majors or for anyone having completed the Calculus sequence.) This course begins with a review of algebraic, exponential and logarithmic functions. Major topics include limits, derivatives and applications of differential calculus to business and industry from an algebraic perspective.
- MA 310 Matrices and Linear Algebra (3 Sem. Hrs.)**
Prerequisite: *MTH 112 or MA 301 with a grade of C or higher*
Topics include elementary theoretical, mechanical and applied approaches to linear systems of equations, matrices, determinants, eigenvalues and eigenvectors, vector spaces, bases and linear transformations.
- MA 311 Advanced Mathematics for Teachers (3 Sem. Hrs.) (Lab fee)**
Prerequisite: *At least one college-level mathematics course (Fulfills General Education Area III Mathematics)*
(Cannot be used to satisfy requirement for upper-level mathematics elective for mathematics majors or other scientific majors.) This course helps students to develop greater mathematical skills and insight. It also introduces students to topics in numeration systems, elementary number theory, problem solving, introduction to probability theory, statistics, and geometry.
- MA 314 College Geometry (3 Sem. Hrs.)**
Prerequisite: *MA 308 with a grade of C or higher*
Topics include axiomatic development of plane and solid Euclidean geometry including functions, distance and measure, congruence, plane separation, parallelism, proportionality and similarity, polygons, circles, area, volume and constructions. Also included is a brief introduction to non-Euclidean geometries.
- MA 316 Vector Analysis (3 Sem. Hrs.)**
Prerequisite: *MA 305*
Topics include vector algebra, vector operations, vector functions, scalar and vector fields, divergence, curl, Laplacian, line and surface integrals, orthogonal curvilinear coordinates, divergence theorem, Stoke's and Green's theorems.
- MA 320 Introduction to Abstract Algebra (3 Sem. Hrs.)**
Prerequisite: *MA 308 with a grade of C or higher*
This course begins with a review of sets, relations and functions. An axiomatic approach is applied to topics of elementary number theory, groups, subgroups and cosets, homomorphisms and their properties, and an introduction to rings.
- MA 321 Differential Equations (3 Sem. Hrs.) (Lab fee)**
Prerequisite: *MA 305*
Topics include theory and techniques of solution for ordinary differential equations with applied examples from different scientific disciplines. Also included is an introduction to Laplace transforms.
- MA 330 Advanced Mathematical Software (3 Sem. Hrs.)**
Prerequisite or Concurrent Enrollment: *MA 304*
(Cannot be used to satisfy requirement for upper-level mathematics elective.) This class teaches the use of mathematical software used in industry and in secondary mathematics education. Emphasis is placed both on solving problems from the calculus and appropriately presenting the results. Techniques will be taught which will ultimately increase productivity in the workplace and provide insight for research.
- MA 331 Applied Probability and Statistics (3 Sem. Hrs.)**
Prerequisite: *MTH 112 or MA 301 or MA 308 with a grade of C or higher*
This is a non-calculus based introduction to basic probability used for statistical inference, including discrete and continuous distributions; proper simple data collection methods; calculating and the use of descriptive statistics; basic statistical inference including confidence intervals, hypothesis testing, one-way ANOVA (analysis of variance), and Pearson's Chi-Squared tests for contingency tables and categorical data.
- MA 380 Topics in Secondary Math Education (3 Sem. Hrs.)**
Prerequisites: *Math with Minor in Education majors only, and Calculus II (MTH 126 or MA 304) with a grade of C or higher*
This course is only open to students in the Mathematics with Minor in Education program. This course provides a review of the following topics: Algebra and Number Theory, Analytic Geometry, Trigonometry, Functions, and Calculus.
- MA 401 Complex Variables (3 Sem. Hrs.)**
Prerequisite: *MTH 227 or MA 305 with a grade of C or higher; MA 308 preferred with a grade C or higher*
Topics include the algebra of complex numbers, analytic functions and integrals, Liouville's Theorem, Cauchy-Riemann equations, sequences and series, and integration by methods of residues.
- MA 422 Operations Research (3 Sem. Hrs.)**
Prerequisite: *MA 330*
Prerequisite or Concurrent Enrollment: *MTH 237 or MA 310*

This course covers topics including linear programming, the simplex algorithm, sensitivity analysis and duality, and Markov chains.

- MA 423 Numerical Analysis (3 Sem. Hrs.) (Lab fee)**
Prerequisites: (MTH 237 or MA 310) and MA 330
(Technology or programming required.) Topics include an introduction to numerical methods for interpolation, evaluating roots of polynomials, systems of equations, integration, differentiation, differential equations, and approximation and error analyses.
- MA 431 Introduction to Mathematical Statistics (3 Sem. Hrs.)**
Prerequisite: MTH 126 or MA 304 with a grade of C or higher
This course is a calculus based introduction to probability and statistics. Topics include discrete and continuous probability distributions, expected values of random variables, moment generating functions, and other advanced statistical and probability concepts including the Central Limit Theorem, ANOVA, Chi-Squared tests, bivariate analysis, regression, other theories of testing and inference, and appropriate applications.
- MA 445 Mathematical Modeling and Simulation (3 Sem. Hrs.)**
Prerequisite: MTH 227 or MA 305
This course covers techniques in vector rotation of three-space coordinates, Perron's eigenvalue theorem, data fitting by the normalization processes for multivariable function approximation, Bezier representation of polynomials for "real-time", computer graphic application, and other topics.
- MA 452 Introductory Real Analysis (3 Sem. Hrs.)**
Prerequisite: MA 320 with a grade of C or higher; or (MA 305 and MA 308 with grades of C or higher)
This course begins with a review of logic, sets and basic proof structures. Major topics include functions, countability, the topology of the real number system, theoretical treatment of sequences, series, limits, continuity and single variable differentiation. Additional theoretical treatment of single variable integration may also be included.
- MA 454 Materials and Methods of Teaching Mathematics in Middle School/High School (3 Sem. Hrs.)**
Prerequisites: MA 314 College Geometry with a grade of C or higher and Admission to the Teacher Education Program
This course does not satisfy requirements for mathematics major, minor, or general studies. This course presents fundamental principles and techniques for the teaching and learning of secondary mathematics and is designed to prepare prospective secondary mathematics teachers to identify, cultivate, and display essential knowledge, skills, and attitudes necessary for the successful planning, teaching, and evaluating of middle and high school mathematics. The course also includes a study of selected topics in mathematics. Opportunities will be provided for the student to demonstrate techniques and methods of teaching various components of the secondary mathematics curriculum.
- MA 461 Directed Study/Research in Mathematics (1 Sem. Hr.)**
MA 462 Directed Study/Research in Mathematics (2 Sem. Hrs.)
MA 463 Directed Study/Research in Mathematics (3 Sem. Hrs.)
Prerequisite: Permission of instructor
These courses are offered on occasion of student demand or need.
- MA 470 Senior Mathematics Seminar (3 Sem. Hrs.)**
Prerequisites: MA 330 and MA 308 with grades of C or higher
This course considers topics in mathematics to include graph theory as well as providing a focus on mathematical research and problem solving. Students will be expected to know critical content and demonstrate their knowledge through critical thinking in their research, problem solving, assignments, writing, and oral presentation. The Mathematics Department Exit Exam is administered in this course.
- MA 480 Special Topics in Mathematics (3 Sem. Hrs.)**
Prerequisites: MA 304 and MA 308 with grades of C or higher
This course is to be offered on occasion of student demand or need.

Management of Cybersecurity Operations (MCO)

- MCO 409 Management of Cybersecurity (3 Sem. Hrs.)**
Prerequisite: AC/MG 302 or ITE 321
This course focuses on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security program assessment and metrics. Coverage on the foundational and technical components of information security is included to reinforce key concepts. The course includes up-to-date information on changes in the field, such as national and international laws and international standards like the ISO 27000 series.
- MCO 410 Cybersecurity Administration and Operations Management (3 Sem. Hrs.)**
Prerequisite: AC/MG 302
This course presents a focus on a managerial view of data and system security. Topics include security policy development, risk management, threat assessment, and business continuity planning. The aim is to examine the implications and challenges of operational security in global organizations. This course provides students with an understanding of the legal, social, and ethical issues related to security management from the management perspective. The course also covers the importance that management and administrators place on information security, as it pertains to overall business risk, social issues such as individual privacy, and the role of public policy.
- MCO 411 Cybersecurity Strategic Management (3 Sem. Hrs.)**
Prerequisite: AC/MG 302

A survey of various means of establishing and maintaining a practical cyber and information security program to protect key organizational assets. The aim is to develop an information security program that is aligned with organizational strategy and to evaluate and recommend information and security technologies to support the information security program. Discussion covers the integration of confidentiality, integrity, and availability into an organization's security program through the use of physical and logical security controls. Topics include data protection, telecommunications systems, applications, and emerging technologies. Threats and vulnerabilities are assessed to determine the level of risk.

MCO 412 Cybersecurity Management of Business Contingency and Resilience Planning (3 Sem. Hrs.)

This course prepares students to plan and execute industry best practices related to managing organization-wide business contingency and resilience programs and to prepare an organization for implementing comprehensive business continuity, incident handling, and disaster recovery plans.

MCO 413 Cybersecurity Management of Systems and Product Acquisition (3 Sem. Hrs.)

Acquisition strategy can be seen as a high level framework that guides program execution across the entire program life cycle. Acquisition strategies typically look for innovative ways to reduce costs. One such way is to consider the security implications of a particular process or automated resource prior to introducing it into the organization. This course explores the security controls established by the National Institute of Standards and Technology (NIST) and evaluates methods for integrating the controls into the acquisition process.

MCO 414 Management of Cybersecurity Governance (3 Sem. Hrs.)

This course gives students a detailed understanding of the broad requirements for effective information security governance, the elements and actions required to develop an information security strategy and a plan of action to implement it.

Management (MG)

MG 302 Management Information Systems (3 Sem. Hrs.) (Also listed as AC 302)

Prerequisite: *Windows applications course (CIS 146 or GBA 301)*

(Student Learning & Licensure-formerly LiveText-required.) An examination of the role of information systems in organizations and how they relate to the objectives and structure of an organization. Emphasis is given to providing a broad overview of the information system management function.

MG 303 Management Decision Support Systems (3 Sem. Hrs.) (Also listed as AC 303)

Prerequisite: *Windows applications course (CIS 146 or GBA 301)*

An analysis of the nature of the decision making process and an examination of support systems. Instruction will emphasize an advanced application of spreadsheet and database management software.

MG 320 Organizational Communication (3 Sem. Hrs.)

(Student Learning & Licensure-formerly LiveText-required.) The purpose of this course is to enhance the student's ability to communicate effectively and efficiently in the workplace. Assignments, exercises, and projects emphasize locating and evaluating relevant information, and communicating through writing, listening, reading, and speaking. Research, group collaboration, and intercultural communication skills are stressed in assignments and demonstrated in projects.

MG 346 Principles of Management and Leadership (3 Sem. Hrs.)

(Student Learning & Licensure-formerly LiveText-required.) An introductory course that explores both the underlying theory and the practical application of management practices and organizational development. In addition to the basic management functions, the course deals with ethical questions, international competition, leadership, and other issues stemming from management's relationship with its increasingly complex legal, social, and competitive environment.

MG 349 Human Resources Management (3 Sem. Hrs.)

A study of the technical functions of HRM. Emphasis is on their application to programs that foster employee commitment to objectives in a competitive, global economy. Course will explore challenges facing the HRM professional, as well as specific focus on the role of managers in the administration of HR activities. The challenges include technical functions such as recruitment and selection, training and development, design, administration of compensation and benefits plans, collective bargaining, and initiatives like quality-of-work life programs. The ways in which HRM works toward organizational goals in a time of rapid change will also be examined.

MG 350 Financial Management (3 Sem. Hrs.)

Prerequisites: *(BUS 241 or BUS 242 or AC 305 or AC 306); and (ECO 231 or ECO 232 or EC 310 or EC 320); and Finite Math or higher (MTH 110, MTH 112, MA 311 or higher)*

(Student Learning & Licensure-formerly LiveText-required.) A study of the art of money capital management on the level of the firm in an enterprise economy. Topics covered include analysis of financial statements, investment decision making, and calculation of the firm's cost of capital.

MG 351 Labor/Management Relations (3 Sem. Hrs.)

An examination of managerial issues affecting development of industrial and labor relations policy. Topics examined include impact of public policy, negotiation, administration of collective bargaining agreements, the NLRB, and arbitration cases.

MG 352 International Business (3 Sem. Hrs.)

(Student Learning & Licensure-formerly LiveText-required.) An analysis of the cultural, economic, ethical, legal, and social environment of the global market.

MG 353 Project Management (3 Sem. Hrs.) (Also listed as ACM 353 and LSM 353)

An examination of the use of critical path method (CPM) and Program Evaluation Review Technique (PERT) on project planning and control.

- MG 357 Project Detailed Scheduling and Planning (3 Sem. Hrs.)**
An in-depth study of project planning and scheduling which includes the introduction and use of state-of-the-art (sota) application software such as Microsoft Project. A case study approach is employed.
- MG 358 Project Initiation and Scope Management (3 Sem. Hrs.)**
A study of techniques used in formulation of a project charter, scope, and statement of work. Explores the challenges and pitfalls of scope management, communication within the project, and project closeout procedures.
- MG 370 Performance Management in Organizations (3 Sem. Hrs.)**
Prerequisite: BUS 276 or MG 349
This course will address the entire range of topics associated with managing the human asset to realize and sustain optimal levels of performance. Topics will include appraisal systems, change management models, adult learning theories, individual versus team performance, organizational development, and managing a diverse workforce. Various aspects of the corporate training and development function, training program design and development of various methods and media for training delivery, as well as return on investment outcomes, will be explored. In addition, this course will also examine the development of systems that will provide highest levels of both personal and professional development and growth within the organization; creation of promotional and cross-functional systems that will talent strength the organization; development of retention strategies that tie rewards to performance talent; creation of workforce planning systems that will provide succession planning of best talent within the organization; and utilization of technological systems to support these functions within human resources planning will be presented.
- MG 375 Organizational Behavior and Teambuilding (3 Sem. Hrs.)**
This course is designed to enhance class members' understanding of the causes and consequences of the behavior of people within the context of organizations, with emphasis on teamwork. To accomplish the learning goals for the course, varying instructional methodologies will be employed including lecture and assigned readings from the text, journal articles, and the web. A significant amount of class time will be spent in experiential exercises.
- MG 390 Operations Management (3 Sem. Hrs.)**
Prerequisite: BUS 275 or MG 346
(LiveText required.) Operations Management examines manufacturing and services industries and the multitude of activities needed to produce or process goods and services in the private and public sectors. It also examines the problems of facilities layout, plant location, statistical quality control, process control, and various models utilized in these areas.
- MG 391 Fundamentals of Operations (3 Sem. Hrs.)**
Fundamentals of Operations establishes a solid entry-level base of industrial knowledge upon which to build towards future growth in manufacturing and industrial supervision. This course introduces students to essential vocabulary and skills identifying and applying the basic principles of inventory control, planning, manufacturing control, and operational management. Included in this course are the principles of effective planning, details of priority and capacity management through the use of material requirements planning, and a survey of the relationship between goods and services and the operation of the system.
- MG 392 Manufacturing Planning in Lean Production (3 Sem. Hrs.)**
Prerequisite: LSM 330
This course focuses on the various techniques for material and capacity planning in a lean production environment. Topics include manufacturing planning and control, master production scheduling, material requirements planning (MRP), capacity planning and utilization, production activity control, Just-In-Time (JIT) manufacturing planning, order point inventory control methods, and MPC system design and strategy.
- MG 393 Basics of Supply Chain (3 Sem. Hrs.)**
Prerequisite: MG 391
The course explores the basic concepts of the industrial flow of materials in a supply chain. Included is a complete overview of material flow, from internal and external suppliers to and from the organization. Topics of discussion include elements of the supply chain, Just-in-Time (JIT), total quality management (TQM), manufacturing resources planning (MRP II), demand planning, and capacity management. Specific case studies are utilized.
- MG 395 Master Planning of Resources (3 Sem. Hrs.)**
Prerequisite: MG 393
Master Planning of Resources concentrates on the processes used to develop sales and operations plans and teaches the student to identify and assess internal and external demand and forecasting requirements. The course focuses on the importance of producing achievable master schedules that are consistent with organizational business policies, objectives, and resource constraints. Course topics include demand management, sales and operations planning, master scheduling and measuring the business plan.
- MG 397 Program and Project Risk Management (3 Sem. Hrs.)**
This course focuses on a systems approach to project risk management from initiation to project planning, implementation, control, and closeout. Topics of discussion include various techniques for qualitative and quantitative risk assessment, including Monte Carlo simulation in areas such as cost, schedule, and performance.
- MG 400 Detailed Scheduling and Planning (3 Sem. Hrs.)**
Prerequisite: MG 395
Detailed Scheduling and Planning focuses on the various techniques for material and capacity scheduling. The course includes detailed descriptions of material requirements planning (MRP), capacity requirements planning (CRP), inventory management practices, and procurement and supplier planning. Topics include recognizing techniques and practices of inventory control;

mechanics of the detailed material planning process; planning operations to support the priority plan; and planning procurement and external sources of supply.

- MG 405 Project Cost Control and Earned Value Management (3 Sem. Hrs.)**
This course provides an introduction to the government's Earned Value Management (EVM) reporting techniques, as well as a review of contemporary methodology for project cost determination, estimating, and control.
- MG 407 Execution and Control of Operations (3 Sem. Hrs.)**
Prerequisite: MG 395
Execution and Control of Operations focuses on the areas of prioritizing and sequencing work, executing work plans and implementing controls, reporting activity results, and providing feedback on performance. The course explains techniques for scheduling and controlling production processes, the execution of quality initiatives and continuous improvement plans, and the control and handling of inventories. Course topics include prioritizing and sequencing work, executing plans and implementing controls, authorizing and reporting activities for push and pull systems, and evaluating performance and providing feedback.
- MG 409 Strategic Resource Planning (3 Sem. Hrs.)**
Prerequisite: MG 395
This course explores the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. The course addresses aligning resources with the strategic plan; configuring and integrating operating processes to support the strategic plan, and implementing change; competitive market issues; choices affecting facilities, supply chain, information technology, and organizational design; configuring and integrating internal processes; and evaluating and managing projects.
- MG 410 Employment Law for Business (3 Sem. Hrs.)**
Prerequisite: Legal Environment of Business (BUS 263 or GBA 311)
This course provides an applied study of significant legal issues in labor and employment law including labor-management relations, wage and hour laws, safety and health laws, retirement, welfare and privacy laws that prepare future managers, supervisors, and business owners for responsibilities in management-employee relations.
- MG 411 Compensation and Benefits (3 Sem. Hrs.)**
This course focuses on a study of the technical functions of compensation and benefits within Human Resource Management. Emphasis is on their application to programs that foster employee commitment to objectives in a competitive, global economy. Therefore, this course will explore the challenges facing the human resource management professional. These challenges will include technical functions such as pay models, internal alignment, external competitiveness, employee contributions, and employee benefits.
- MG 412 Cultural Diversity and Communication Issues in International Business (3 Sem. Hrs.)**
Prerequisite: None; recommended that MG 352 and EC 320 be completed before taking MG 412
This is the capstone course for the international business minor. It focuses on two broad areas: case studies in political, legal, economic, and cultural areas and the in-depth study of multicultural diversity. Areas to be covered include religion, family, time, gender, race, ethnicity, aesthetics, power distance, individual vs. collective, masculine vs. feminine and uncertainty avoidance.
- MG 413 Project Communication, Management and Leadership (3 Sem. Hrs.)**
Addresses the communication planning necessary for success within the project environment. Includes virtual, informal, and formal communication systems review. Discusses establishment of critical communications within and external to the project team.
- MG 415 Technical Risk Management (3 Sem. Hrs.)**
Prerequisite: BUS 271 or MTH 265 or GBA 305
This course examines the use of the scientific method and statistical analysis to minimize the risk exposure in management decision making, particularly when bringing high-technology products to the market place within allotted time and financial specifications.
- MG 416 Entrepreneurship (3 Sem. Hrs.)**
Prerequisites: (BUS 241 or AC 305); and (CIS 146 or GBA 301); and (BUS 275 or MG 346); and (BUS 285 or MK 331)
In this course, students bring their knowledge of management, marketing, accounting, and microcomputer applications to bear on the problems of planning and operating a small business. Student teams research, prepare, and present complete business plans including *pro forma* financial statements for startup ventures. Market research, site selection, pricing, promotion, and financial analysis for the small firm are among the topics stressed.
- MG 417 Management of Change (3 Sem. Hrs.)**
This course examines the various approaches to organizational change, the resistance and driving forces for change, and the implementation and control of change in organizations.
- MG 418 Management of Technology (3 Sem. Hrs.)**
This course is a case study approach to the integration of technical knowledge with management science.
- MG 419 Technology Transfer and Commercialization (3 Sem. Hrs.)**
Technology Transfer and Commercialization offers an overview of how government-sponsored technology and expertise can be transferred into commercial and private sectors to maintain business competitiveness. Specific case studies are employed to illustrate the effectiveness and importance of technology transfer to global commerce.
- MG 420 Business Policy (3 Sem. Hrs.)**
Prerequisites: Senior standing; and (BUS 275 or MG 346); and (BUS 285 or MK 331); and MG 350
(Student Learning & Licensure-formerly LiveText-required.) **Student should schedule this course during one of the last two semesters of their degree program.**

NOTE: Students must earn a minimum grade of “C” in this course in order to graduate with a major in the College of Business. This course requires a business simulation (software purchase required). A capstone course which examines the interrelations of the various business functions from the viewpoint of middle management’s decision process. There is heavy emphasis on both oral and written case study analysis.

- MG 421 Lean Six Sigma White Belt (3 Sem. Hrs.)**
This course provides an overview of the Lean and Six Sigma methodologies and prepares learners for advancement into Yellow Belt and Green Belt programs. Topics covered include the history and fundamentals of Lean and Six Sigma, the structure of Lean Six Sigma, and the creation of problem statements.
- MG 422 Lean Six Sigma Yellow Belt (3 Sem. Hrs.)**
Prerequisite: MG 421
This course builds upon concepts learned in the Lean Six Sigma White Belt course and prepares learners to use basic measuring tools for collecting data and progressing through the problem-solving process. Topics covered include processes, how Six Sigma projects can improve processes, critical to quality characteristics, tools and methods for project selection, and the Define, Measure, Analyze, Improve, and Control (DMAIC) methodology.
- MG 423 Lean Six Sigma Introduction to Green Belt (3 Sem. Hrs.)**
Prerequisite: MG 422
This course builds upon concepts learned in the Lean Six Sigma Yellow Belt course and explores the tools and methodologies needed to lead Lean Six Sigma projects. Learners will study the problem-solving framework for improving processes - Define, Measure, Analyze, Improve, and Control (DMAIC). Learners will execute a Lean Six Sigma project to reduce or eliminate waste, lower defects in an organization’s products or processes, or improve customer satisfaction.
- MG 430 Project Management Practicum (3 Sem. Hrs.)**
Applies the knowledge of project management in an integrative fashion within a project team environment. Course requires a written project plan and research paper or a challenging team project based upon liaison with business and industry.
- MG 441 Special Topics in Management (3 Sem. Hrs.)**
To be offered on occasion of student demand or need.
- MG 449 Advanced Human Resource Management (3 Sem. Hrs.)**
Prerequisite: MG 349
This course will examine the functions of Human Resource Management by investigating both the theoretical advance of HRM, and the practical application of these functions as they apply to the manager’s responsibility in the global marketplace. Emphasis will be placed on HRM professional roles and responsibilities as a strategic business partner.
- MG 450 Strategic HR Competencies and Professional Certification (3 Sem. Hrs.)**
Prerequisites: 500 hours relevant HR experience as prescribed by the Society for Human Resource Management; and approval of department
Prerequisite or Concurrent Enrollment: MG 449
This course will provide the student with both the operational and strategic framework of the human resources professional based on SHRM HRM Competencies and related content preparation for professional certification in human resources. Topics to be included are: HR Strategic Planning, Talent Acquisition, Employee Engagement and Retention, Learning and Development, Total Rewards, Structure of the HR Function, Organizational Effectiveness and Development, Workforce Management, Employee and Labor Relations, Technology Management, HR in the Global Context, Diversity and Inclusion, Richs Management, Corporate Social Responsibility, and US Employment Laws and Regulations.
- MG 460 Directed Study/Research in Management (3 Sem. Hrs.)**
This course is designed to allow students an opportunity to perform research/directed studies in management. It is offered at the discretion of the professor with approval of the College Dean.
- MG 461 Internship in Management (1 Sem. Hr.) (At least 50 hours of work-based experience is required)**
MG 462 Internship in Management (2 Sem. Hrs.) (At least 100 hours of work-based experience is required)
MG 463 Internship in Management (3 Sem. Hrs.) (At least 150 hours of work-based experience is required)
Prerequisites: MG 320 or GBA 300; compliance with College of Business Internship Policies and Procedures
These internships in the field of management are designed to provide the student with practical work experience leading to a potential career-field in business.
- MG 470 Introduction to Aviation Management (3 Sem. Hrs.)**
Prerequisite: Department approval
This course provides an orientation to aviation management and its career opportunities. Topics include the history of significant events and accomplishments in the evolution of aviation and the related attempts to move through air and space.
- MG 471 Aviation Law (3 Sem. Hrs.)**
Prerequisites: (BUS 263 or GBA 311); and MG 470
This course covers the legal structure of aviation including federal, local, and state statutes, contracts, insurance and liability, regulatory statutes and specific case law.
- MG 472 Aviation Safety and Security (3 Sem. Hrs.)**
Prerequisite: MG 470
This course focuses on problems and issues of aviation safety and security including aircraft accidents, their cause, effect and the development of safety and security programs and procedures.
- MG 473 Air Traffic Control Fundamentals (3 Sem. Hrs.) (Special Course fee)**

Prerequisite: MG 470

This course offers air traffic control procedures, facilities, center, and operations. Other topics covered are theory of radar operation and air traffic separation using computer-based ATC radar simulators.

- MG 474 General Aviation Management (3 Sem. Hrs.)**
Prerequisites: (BUS 275 or MG 346); and MG 471
This course provides an overview of general aviation and its impact and interaction with the total aviation industry and includes a study of the various users, the suppliers and service organizations, the aircraft and facilities, maintenance management, and regulatory framework.
- MG 475 Aviation Weather Management (3 Sem. Hrs.)**
Prerequisite: MG 470
This course focuses on weather as it applies to the operation of aircraft with emphasis on observation of weather elements and interpretation of flight planning weather information; DUATS, WSI services.
- MG 476 Federal Aviation Regulations (3 Sem. Hrs.)**
Prerequisite: MG 471
This course is a study and review of Federal Aviation Regulations CFR 14 Parts 43, 91, 121, and 135 as they pertain to management of airports, charter services, certificated air carriers, and general operating and flight rules.
- MG 477 Airport Management (3 Sem. Hrs.)**
Prerequisite: MG 474 and MK 331
Practices in management of a civil public airport, including organization, functions, operations, sources of revenue, funding, facility maintenance, and administration.
- MG 478 Aviation Management Internship (3 Sem. Hrs.)**
Prerequisite: Department approval and Senior Standing
Practical on-the-job training under supervision with aviation agencies. Written reports are required by designated faculty supervisors.
- MG 479 Aviation Maintenance Management (3 Sem. Hrs.)**
Prerequisites: MG 470 and MG 474
This course provides a study of the basic functions, operations, and importance of aviation maintenance in a comprehensive management context. Covers maintenance fundamentals, technical support, maintenance and material supports, oversight functions, human factors in maintenance, and the art of trouble shooting. Students will have a liaison with an aviation maintenance facility to observe management operations.
- MG 480 Seminar in Business (1 Sem. Hr.)**
Prerequisite: Senior standing (this course should be taken concurrently with MG 420 Business Policy in student's last term)
(Student Learning & Licensure-formerly LiveText-required.) **NOTE: Students must earn a minimum grade of "C" in this course in order to graduate with a major in accounting, management, human resources management, or the management of technology.** This course is a key component in the assessment of business school programs and of student achievement in the areas of communication and professionalism. It will provide the "post" assessment writing sample for comparison with a "pre" assessment writing sample done in a course taken in the student's first term (MG 320 Organizational Communication). It will provide an opportunity for students to demonstrate proficiency in oral and written communication, to better prepare for graduate school and the job search process, and to achieve an acceptable score on the Assessment Exam.
- MG 481 Spacecraft Environments (3 Sem. Hrs.)**
This course introduces the beginning aerospace-aviation systems management student to the natural and operational phenomena that affect spacecraft systems operating in near Earth and planetary orbits. Emphasis is placed on those environmental factors which are major considerations in the design and operation of space systems. The natural factors treated include the effects of high vacuum, microgravity, the magnetosphere, Solar heating, particle radiation, atmospheric drag and Earth oblateness. The effects of the Sun on the upper atmosphere and on the magnetosphere will be outlined. Hazards to orbiting spacecraft caused by space debris and unusual Solar and galactic activity will be presented. The operational environment during launch and re-entry which creates severe structural and thermal demands on the spacecraft will be examined.
- MG 482 Mission Planning and Control (3 Sem. Hrs.)**
This course addresses the concepts of space mission conceptualization, planning, communications, and control while operating in near Earth and planetary orbits. Previous mission planning from NASA missions such as those used during International Space Station, Space Shuttle, Project Apollo and other sources will be utilized as well as un-crewed missions such as the Mars Perseverance Rover. Students will develop and simulate a typical mission in a team environment, including communications and data management utilizing a simulated world-wide deep space network using ZOOM. The team mission will be published as part of the class.
- MG 483 Space Law and Treaties (3 Sem. Hrs.)**
This course will address an overview and the basics of space law and treaties, especially as it pertains to commercial space endeavors. Included will be review of commentaries, definitions and national legislation from 14 countries including among others: France, Korea, Italy, Netherlands, Australia, Austria, Russia, Japan, Norway, Kazakhstan, Sweden, Spain, UK. The course will offer a general and systematic collection of basic legal documents that will be a required tool for researchers and practitioners. The first part of the course will address principal legal instruments--the so-called 'classical instruments'--elaborated within the United Nations, Principles adopted by the General Assembly, including relevant notes and commentaries. The second part deals with national legislation specifically concerning outer space issues, such as establishing a 'base' on an extraterrestrial body (asteroid), moon, or planet.
- MG 484 Space Exploration Strategies (3 Sem. Hrs.)**
This course will address an overview and the details of how the space exploration industry has changed over the last few decades. Beginning at the end of the Apollo moon program, attention shifted to the extreme high costs of space launches and particularly the

costs per pound of payload (e.g. \$\$/lb to low Earth orbit). NASA sold the Space Transportation System, STS as a major step forward to lowering costs. However, the Shuttle was never able to achieve the required and/or projected launch rates (equal to or greater than 1 mission per month) lowering costs was the non-reuse of space launch hardware. Of late, these "dreams" are being realized by space entrepreneurs such as Elon Musk with the reusable Falcon 9 rocket. Even greater savings are around the corner with the SpaceX "Starship". This course will address all of the important "game changing" strategies, the people, and the newest space launch hardware and methodologies.

MG 485 Aircraft Propulsion Systems (3 Sem. Hrs.)

This course entails study of aircraft propulsion systems ranging from two-cycle piston engines to high performance 'scram jets'. Attention will focus on the design, operation, and performance differences and the evolution of aircraft engines since the early 1800's. Students will learn the advantages and disadvantages of the various engine types and how these parameters govern their application to specific aircraft types and performance engines. Elementary performance calculations will be presented and contrasted. Overall operations and maintenance of engines will likewise be addressed. A systems management light will be cast on the subject to include fixed and variable operating costs, performance, reliability, and maintenance.

MG 486 Rocket and Spacecraft Propulsion (3 Sem. Hrs.)

This course entails the study of rocket and spacecraft propulsion systems ranging from monopropellant thrusters, solid propellant rocket motors (SRMs) to the latest high performance Methane-LOX engines used on the SpaceX "Starship". Attention will focus on the design, operation, and performance differences and the evolution of rocket engines since the early 1900's. Students will learn the advantages and disadvantages of the various engine types and how these parameters govern their application to specific mission types and performance regimes. Elementary performance calculations will be presented and contrasted. A life-cycle cost approach will be employed to include development, fixed, and variable operating costs and performance. Overall operations and maintenance of engines will likewise be addressed. A systems management light will be cast on the subject to include fixed and variable operating costs, performance, reliability, and maintenance. Potential future systems such as ion, nuclear, and even 'warp drive' propulsion systems will also be addressed.

MG 487 Aviation Risk Management (3 Sem. Hrs.)

This course is a study of risk management techniques for both aircraft and spacecraft missions. Included will be development of a rational and consistent methodology for identifying and mitigating flight risks based on human, software, hardware, and environmental factors. Formal risk management planning will be addressed and both qualitative and quantitative methods will be employed and contrasted. Formal Risk Management Planning will be taught and evaluated for effectiveness. A systems management approach will be employed and will encompass identification of all resources available to pilots and space crews as well as managers where applicable. Risk avoidance will be stressed. Quantitative software applications such as Palisades @Risk will be evaluated for flight applications. A formal Risk Management Plan (RMP) will be developed for typical private, commercial, and space mission applications.

MG 488 Aircraft Systems and Flight Engineering (3 Sem. Hrs.)

This course entails study of the theory, components, and practical applications of systems in simple glider aircraft up to advanced turboprop, turbojet, and turbofan aircraft. It examines electrical, turbine engines, lubrication and cooling, and other systems. For spaceflight, contrasts will be made between the latest Boeing and SpaceX crew capsules to be used for near Earth, Lunar, and even interplanetary space exploration and former crewed spacecraft such as the Shuttle and Apollo. Systems concepts, makeup, and operations will be reviewed.

MG 489 Aviation and Space Human Factors (3 Sem. Hrs.)

This course addresses the study of human factors associated with both aircraft and spacecraft flight within the atmosphere and in space. For aircraft pilots, the typical effects are studied such as altitude (low oxygen, hypoxia), gforces, disorientation, fatigue, etc. In space, humans suffer from effects like weightlessness, motion sickness, radiation and more. These phenomena are explored along with their detriments to both normal bodily functions and abilities to perform required technical maneuvers and other flight control commands. Cognitive effects are also addressed in both environments along with short and long term effects. Recent studies encompassing the yearlong stay of astronauts on the International Space Station (ISS) will be reviewed in the context of this course.

MG 490 Aerodynamics and Flight Performance (3 Sem. Hrs.)

This course is a study of fundamental aerodynamics as it pertains to flight forces such as lift, drag, thrust, etc., as well as, how these characteristics of airfoils and aircraft shapes and structures affect the craft's performance. Differences between atmospheric and space flight will be addressed and how allowances are made in design and operations. Bernoulli's principle affecting the creation of lift used to counter 'weight' will be explained. Performance where thrust used to counter drag will be addressed. Newton's basic laws of motion will be explored and applied to both aircraft and spacecraft. The importance and practice of sub-sonic and super/hyper sonic wind tunnel testing is included. Various aspects of flight performance will be addressed.

MG 491 Commercial Space Enterprises (3 Sem. Hrs.)

This course is a study of the business, economics, physical operations, and the paper-train involved in conducting space launch operations including launch site preparation and maintenance, range safety, FFA permits to launch, existing range requirements, payload assembly, transportation of launch vehicle components and assembly, checkout and testing, personnel training and certifications, etc. Also addresses the economic side of commercial space operations, investments, and funding sources. Case studies will be employed and strawman mission planning and ROM cost documentation will be developed for specific missions. MicroSoft Project scheduling and tracking (including costs) will be introduced.

Marketing (MK)

MK 331 Marketing Principles (3 Sem. Hrs.)

Prerequisite: *Principles of Economics*

(Student Learning & Licensure-formerly LiveText-required.) This course is a study of the forces operating, institutions employed, and methods followed in the flow of goods and services from production to consumption.

- MK 335 Integrated Marketing Communications (3 Sem. Hrs.)**
This course covers the communication process model and how to orchestrate an effective marketing message through the process. It describes the different delivery platforms and how to assure that the marketing message remains consistent regardless of the communication platform used. The completion of a project communication plan is a part of this course.
- MK 337 Digital Marketing (3 Sem. Hrs.)**
This course identifies the different digital marketing platforms and how to strategically use each platform to deliver a marketing message. The course will cover the design of an effective digital marketing campaign, how to implement the campaign, how to measure the effectiveness of the campaign using marketing analytics and how to conduct a recap of the campaign.
- MK 431 Marketing Research (3 Sem. Hrs.)**
Prerequisites: (BUS 271 or MTH 265 or GBA 305); and (BUS 285 or MK 331)
This course is a study of research methods and procedures as they apply to marketing operations. This course includes the information sources available to marketing researchers and the design and analysis of research projects concerned with obtaining primary information.
- MK 433 Marketing Strategies and Policies (3 Sem. Hrs.)**
Prerequisite: Marketing Principles (BUS 285 or MK 331)
The course examines various policies and problems requiring decisions by marketing managers. Particular emphasis will be given to advertising and promotional strategies.
- MK 434 Sales Management (3 Sem. Hrs.)**
This course covers the sales process and its integration with other business functions. Sales strategies and closing styles are discussed. Sales activities such as prospecting, calling, meetings and lead generation are included. Learning how to make a sales pitch, setting sales goals and conducting sales presentations are covered as is the measurement of sales results.
- MK 461 Internship in Marketing (1 Sem. Hr.) (At least 50 hours of work-based experience is required)**
MK 462 Internship in Marketing (2 Sem. Hrs.) (At least 100 hours of work-based experience is required)
MK 463 Internship in Marketing (3 Sem. Hrs.) (At least 150 hours of work-based experience is required)
Prerequisite: MG 320 or GBA 300; compliance with College of Business Internship Policies and Procedures
These internships in the field of marketing are designed to provide the student with practical work experience leading to a potential career-field in business.

Music (MU)

- MU 300 Vocal Class (3 Sem. Hrs.)**
Corequisite: MU 300L
Vocal Class/Vocal Lab will expose students to the appoggio technique of inhalation/exhalation along with the 19th-century Italian technique known as bel canto. Considerable attention will be given to the three divisions of the pharynx and its role in developing the singer's formant. The student will be taught the anatomy/physiology involved in singing and psychology of singing and performing on stage. The student will be expected to practice vocal exercises which will aid in developing great singing technique.
- MU 300L Vocal Lab (1 Sem. Hr.) Corequisite: MU 300**
- MU 302 Choral Class (3 Sem. Hrs.)**
Corequisite: MU 302L
Audition is required. This course is a performing ensemble open to all students. Chorale is required for all voice minors as well as scholarship recipients. Course is repeatable up to a maximum of twelve semester hours.
- MU 302L Choral Lab (1 Sem. Hr.) Corequisite: MU 302** Course is repeatable up to a maximum of four semester hours.
- MU 306 Conducting Course (3 Sem. Hrs.)**
The Conducting Course will address the fundamental task of the conductor, provide specific techniques regarding conducting patterns, teach the function of each hand, and address correct usage of the baton. The course will also help the student identify conducting behaviors of successful conductors. Other areas that will be addressed include score preparation and rehearsal techniques (video-micro rehearsal).
- MU 310 Digital Recording and Editing (3 Sem. Hrs.)**
Digital Recording & Editing is a lecture/lab course designed to build upon student's knowledge of the concepts and current trends of audio technology with a primary focus on combining various processes and tools to create new music compositions while speculating on the cultural, performance, and philosophical implications of music technology. This course is designed to teach upper level computer sequencing techniques. Emphasis will be placed on projects in which students will be expected to sequence post production audio for use in live theater productions. Topics include the acoustics of sound, digital audio, synthesis, sampling, MIDI (in performance and editing), the digital audio workstation, digital audio hardware, digital audio software and more.
- MU 311 Foundations of Audio Technology (3 Sem. Hrs.)**
Foundations of Audio Technology is a lecture/lab course designed to build upon a student's knowledge of the concepts and current trends of audio technology with a primary focus on combining various processes and tools to create new music compositions while speculating on the cultural, performance, and philosophical implications of music technology. An investigation into the history, culture, and aesthetics of music and technology as deployed in experimental and popular music from the 19th century to the present. Through original research, creative hands-on projects, readings, and lectures, the following topics will be explored: the history of radio, audio recording, and the recording studio, as well as the development of musique concrète and early electronic instruments; the creation and extension of musical interfaces, both physical and virtual; the exploration of electromagnetic technologies in pickups, and the development of dub, hip-hop, and turtablism; the history and application of the analog synthesizer, from the Moog modular

to the Roland TR-808; the history of computer music, including music synthesis and representation languages; historical and contemporary practices in live electronics, circuit bending, and electro-acoustic music; contemporary issues in copyright and intellectual property.

- MU 312 Audio Mastering (3 Sem. Hrs.)**
Audio Mastering is a survey of the final creative step in audio production before it is delivered to manufacturing. This course will cover the fundamental concepts behind building a mastering suite, critical listening, frequency and dynamics adjustment, sequencing, and delivery.
- MU 315 Private Vocal I (2 Sem. Hrs.)**
First semester of a two semester sequence designed to develop vocal training skills, including but not limited to, accuracy in all aspects of musicianship (reading, rhythms, etc.), use of breath in singing, ability to color the voice in response to text, tradition or style period, awareness of the rules of pronunciation, strengthening aspects of vocal technique as needed by the student, an understanding of the poetry in any given song, and other aspects of quality singing tailored to the individual needs of the student.
- MU 316 Private Vocal II (2 Sem. Hrs.)**
Prerequisite: MU 315
Second semester of a two-semester sequence designed to develop vocal training skills, including but not limited to, accuracy in all aspects of musicianship (reading, rhythms, etc.), use of breath in singing, ability to color the voice in response to text, tradition or style period, awareness of the rules of pronunciation, strengthening aspects of vocal technique as needed by the student, an understanding of the poetry in any given song, and other aspects of quality singing tailored to the individual needs of the student.
- MU 441 Special Topics in Music (1-3 Sem. Hrs.)**
This course will be offered on occasion of student demand or need. Course may be repeated as topics will vary.
- MU 499 Audio Internship (3 Sem. Hrs.)**
This course provides a solid foundation of practical techniques for the new to intermediate recordist including signal flow analysis, optimization, structuring a session, budgeting time and finances, acoustics, mixing, and editing. The course is grounded in traditional rudiments and fundamentals, but focused on production that is nimble and forward thinking enough for the digital age. In addition to the technology, the course examines the musical, interpersonal, and organizational skills needed to make a record successfully - skills that extend beyond the realm of music production. Additionally, the course examines applications of audio technology beyond the realm of music production, including audio post-production for video and podcasting. The course focuses on imparting skills that can be applied to any digital audio workstation (DAW).

Nursing (NUR)

- NUR 340 Introduction to Healthcare Systems (3 Sem. Hrs.)**
Prerequisite: UNV 300
This course provides an overview of the organization and administration of health care delivery systems in the United States. It examines the history, roles, and interactions of the various providers, consumer and governments.
- NUR 370 Healthcare Informatics (3 Sem. Hrs.)**
Prerequisite: BSN Nursing majors only
This course provides knowledge and skills for the use of patient care technologies utilized in diagnosis and interventions, information technology systems, including electronic health records, and healthcare decision-support systems used to gather knowledge that guides clinical practice. Telemedicine concepts and social media utilization in clinical care are also investigated.
- NUR 400 Professional Nursing Practice (3 Sem. Hrs.)**
Prerequisite: BSN Nursing majors only
This course examines the multifaceted roles and functions of the professional nurse across healthcare delivery systems. Through an emphasis on lifelong learning, professional development, and evaluative practice the student will recognize the philosophical, social, political, legal, and ethical foundations of professional nursing practice. The student will establish goals designed to guide learning and professional development.
- NUR 410 Community Health Management (5 Sem. Hrs.)**
Prerequisite: BSN Nursing majors only
This course provides a broad perspective on population-focused care in nursing practice, with emphasis on health promotion, disease prevention, and the importance of primary prevention. Determinants of health and available resources of health are identified in the public health and community settings across the lifespan and strategies for effective deployment and access of resources are evaluated.
- NUR 430 Scholarly Inquiry/Evidence-Based Practice (3 Sem. Hrs.)**
Prerequisite: BSN Nursing majors only
This course develops the skills and knowledge to make evidence-based practice an integral part of clinical decision-making and everyday nursing practice. The student will explore diverse methods of inquiry used in nursing science which promotes the application of best clinical evidence into practice in order to advocate improvement in healthcare experiences and positive patient outcomes.
- NUR 440 Leadership in Practice (5 Sem. Hrs.)**
Prerequisite: BSN Nursing majors only
This course provides an in-depth understanding of leadership in health care, particularly focused on evidence-based practice within

the framework of ethics and professionalism. Linkages among leadership, practice, research evidence, patient outcomes, and cost containment will be explored.

- NUR 460 Nursing Capstone (5 Sem. Hrs.)**
Prerequisite: BSN Nursing majors only, NUR 430, Must have Senior Standing and schedule course during one of the last two semesters of the degree program
This course provides the framework for synthesizing the program concepts and using those concepts in an experiential learning activity within the healthcare community and an action-based collaborative project.

Occupational Health and Safety Management (OHSM)

- OHSM 300 Creating and Maintaining a Culture of Safety (3 Sem. Hrs.)**
This course is a study of the essential safety practices, causal factors, and preventable measures related to occupational health and safety practices. Emphasis is on their application to programs that foster employee commitment to objectives in a competitive, global economy. Therefore, this course will explore the challenges facing the occupational health and safety professionals, as well as specific focus on the role of managers in the administration of human resource activities.
- OHSM 350 Risk Management and Security in the Workplace (3 Sem. Hrs.)**
This course is a study of current trends in security including growth, government involvement, and best practices in the safety profession. The relationship between private/internal security and public law enforcement responsibilities will be examined. This course will also cover the steps in developing a risk management strategy and business continuity plans.
- OHSM 373 Hazard Analysis and Regulatory Compliance (3 Sem. Hrs.)**
This course is a study of employer and employee rights and responsibilities regarding the Occupational and Safety Health Act. Employer responsibilities as it relates to the general duty clause and OSHA record keeping requirements to maintain governmental compliance will be examined. The identification of hazards and their utilization to correct OSHA standards related to general industry applications will be covered.
- OHSM 385 Environmental Conservation Management (3 Sem. Hrs.)**
Prerequisite: OHSM 300
The course will examine the impact of industrial pollution, EPA engineering control strategies, and environmental conservation principles to manage solid waste, hazardous waste, water pollution, air pollution, and radiological sources.
- OHSM 391 Ergonomics and Human Factors (3 Sem. Hrs.)**
A study of workplace design as it relates potential for musculoskeletal injury/illness as well as their remediation.
- OHSM 405 Injury Damage Incidents Evaluation and Reporting (3 Sem. Hrs.)**
This course examines aspects of accident investigation from theory to organizing, gathering, and analyzing data, to reporting, recommendations and follow up. The student will learn the value of accident investigation and how to conduct a thorough investigation in the workplace to identify root causes and corrective actions to prevent reoccurrence. Fundamentals of workers compensation will be introduced.
- OHSM 422 Safety Training and Development (3 Sem. Hrs.)**
This course examines safety training and development throughout organizations and all levels as mandated by federal, state, and local governments.
- OHSM 425 Industrial Health Technology Management (3 Sem. Hrs.)**
Prerequisite: OHSM 300
This course focuses on the management of environmental health as it relates to chemical exposures, industrial ventilation, indoor air quality, and the physical properties of contaminants found in the industrial work environment. As a result, the student will be skilled in the development, integration, evaluation, management and cost containment strategies of the industrial hygiene function within an organization.
- OHSM 448 Managing the Public Safety and Health Emergency (3 Sem. Hrs.)**
Prerequisite: This course is open only to majors in CJ, Health and Wellness, OHSM, or Health Science, or by permission of an OHSM faculty member
This course utilizes case studies and current literature to examine issues involved in preparation for and response to various situations faced by responders to major incidents involving public safety and health emergencies and crises. Special focus is placed on the structure and functioning of an incident command system under the National Incident Management System.
- OHSM 451 Environmental Health and Regulation (3 Sem. Hrs.) (Also listed as HS 451)**
This course provides an in-depth examination of the creation, development, and operations of governmental processes and agencies at all levels relating to environmental awareness and protection activities in the public sector. The interactions among the historical development of environmental awareness in America, the emergence of the Environmental Movement and advocacy groups, and various governmental actors are examined. The course examines governmental responses in terms of the creation of environmentally-focused agencies, passage of legislation, and administrative rule-making and regulation.

Philosophy (PH)

- PH 300 Moral Values in Today's Society (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
This course examines the moral values of various societies as well as those of individual moral philosophers past and present to see how they legitimate their views of what constitutes a good and desirable life.

- PH 320 Biomedical Ethics (3 Sem. Hrs.) (Also listed as HS 320)**
(Fulfills General Education Area II Humanities)
 The course is designed to create a greater understanding of modern ethical issues in the biomedical field. Key topics will include: research on human and animal subjects, stem-cell research, genetic engineering, abortion, euthanasia, issues of justice, healthcare access, and confidentiality. The course begins with an overview of ethical theory and principle, and then explores the practical issues relating to biomedical ethics.
- PH 321 History of Philosophy I (3 Sem. Hrs.)**
 This course is a critical survey of the thought of major western philosophers from Thales to Descartes.
- PH 322 History of Philosophy II (3 Sem. Hrs.)**
 This course is a critical survey of the thought of western philosophers from Descartes to the present time.
- PH 325 Philosophy of Religion (3 Sem. Hrs.) (Also listed as RE 325)**
(Fulfills General Education Area II Humanities)
 This course is a philosophical study of the grounds of religious belief and practice, the relationship of man to God and its implications for morality, and the belief in life after death. Special attention is given to the impact of science upon religion.
- PH 441 Special Topics in Philosophy (1 Sem. Hr.)**
PH 442 Special Topics in Philosophy (2 Sem. Hrs.)
PH 443 Special Topics in Philosophy (3 Sem. Hrs.)
 These courses will be offered on occasion of student demand or need.
- PH 461 Directed Study/Research in Philosophy (1 Sem. Hr.)**
PH 462 Directed Study/Research in Philosophy (2 Sem. Hrs.)
PH 463 Directed Study/Research in Philosophy (3 Sem. Hrs.)
Prerequisite: Permission of instructor; open only to superior students who have had at least 15 hours of philosophy in the classroom
 (May be repeated for up to ten additional hours of credit.) These courses are to be offered on occasion of student demand or need. The student studies in an area of his or her particular interest approved by the instructor.

Political Science (PO)

- PO 303 Comparative State and Local Government (3 Sem. Hrs.)**
 This course is a comparative examination of the structures, operation, and contemporary issues facing state and local governments throughout the United States.
- PO 307 American Constitutional Law (3 Sem. Hrs.) (Also listed as HY 307 and CJ 307)**
 This course examines the text of the nation's primary law and key decisions of the U.S. Supreme Court interpreting certain phrases. Organization and operation of the Court are also covered. This course focuses on separation of powers, federalism, interstate commerce, taxation, the contract clause and the takings clause. This course provides a foundation in American constitutionalism for students who plan to attend law school or teach social studies in the secondary schools.
- PO 350 Introduction to the American Legal System (3 Sem. Hrs.) (Also listed as CJ 350)**
 This course is a review of basic legal doctrines and processes in the American system of jurisprudence. Students are introduced to a wide variety of topics in civil and criminal justice. Topics include the theory and nature of law as a device for social control, torts, contracts, and ownership of property. The course is structured to provide prelaw majors with exposure to the many social conflicts managed by law and courts and to provide education majors with an overview of law-related topics necessary for civics instruction.
- PO 364 Civil Liberties (3 Sem. Hrs.) (Also listed as CJ 364)**
 This course focuses on the leading cases and doctrines which balance governmental/societal interests with individual rights across a broad spectrum of social relationships. It explores the constitutional foundations for freedoms of expression, due process rights, and equal protection under law.
- PO 470 Internship in Political Science (1-4 Sem. Hrs.)**
 This course is designed to let political science majors serve as interns with judges, lawyers, and public administrators in North Alabama.

Psychology (PS)

- PS 301 Gender and Multicultural Studies (3 Sem. Hrs.) (Also listed as SO 301)**
(Fulfills General Education Area IV Social/Behavioral Science)
 This course is an introduction to the concepts, terminology, and issues in gender and multicultural studies including exploration of America's multicultural composition, gender as an element of culture, and contemporary issues in the field.
- PS 304 Drugs and Behavior (3 Sem. Hrs.)**
(Fulfills General Education Area IV Social/Behavioral Science)
 This course is a survey of the psychosocial factors related to drug abuse and addiction. Special emphasis will be focused upon estimation of drug epidemiology, consequences of drug usage, and treatment of drug addiction.
- PS 305 Human Sexuality (3 Sem. Hrs.)**
 This course examines human sexuality from psychological, biological, behavioral, social, and historical perspectives. Topics include sexual research, cultural and theoretical perspectives, values and sex, love, communication and intimacy, sexual anatomy and

physiology, sexually transmitted diseases, patterns of sexual response, sexual disorders and therapies, the development of sexuality, sexual orientation, sexuality and the law, coercive sexual behavior, and other contemporary social issues in sexuality.

- PS 330 Educational Psychology (3 Sem. Hrs.)**
This course applies psychological concepts and principles to classroom teaching and learning especially in the areas of motivation, individual differences, adjustment, and teacher-student interaction.
- PS 331 Social Psychology (3 Sem. Hrs.)**
(Fulfills General Education Area IV Social/Behavioral Science)
This course presents an in-depth survey of theory, research findings, and research methods pertaining to how the individual's thoughts, feelings, and behaviors are influenced by the real or imagined presence of others. Understanding and critical analysis of primary research is emphasized with the goal of developing critical thinking skills. Topics include the self, person perception, attitudes and attitude change, interpersonal attraction and intimate relationships, stereotyping, prejudice and discrimination, and prosocial behavior.
- PS 332 Child Psychology (3 Sem. Hrs.)**
This course is an in-depth study of theory, research findings, and methods of obtaining knowledge regarding biological, cognitive, and psychosocial aspects of development from conception to puberty. Underlying mechanisms responsible for developmental change are emphasized. Topics include prenatal development, motor and perceptual development, cognitive development, the self and self-understanding, and the family. Critical analyses of scientific research designs and methods are emphasized.
- PS 334 Adolescent Psychology (3 Sem. Hrs.)**
This course is an in-depth study of theory, research findings, and methods of obtaining knowledge regarding biological, cognitive, and psychosocial aspects of adolescent development. The impact of socio-cultural factors and underlying mechanisms responsible for developmental change are emphasized. Topics include physical change, cognitive development, development of identity, social development within the family and among peers, emotional development and moral attitudes. Critical analyses of scientific research designs and methods are emphasized.
- PS 335 Adult Psychology (3 Sem. Hrs.)**
This course is an in-depth survey of theory, research findings, and methods of obtaining knowledge regarding biological, cognitive, and psychosocial aspects of adult development from emerging adulthood through the end of the lifespan. Developmental sequences of change and the underlying mechanisms responsible for change are covered. Topics include physical changes, intellectual changes, development of identity and social roles, relationships, personality changes, and coping with death and dying. Critical analyses of scientific research designs and methods are emphasized.
- PS 336 Psychology of Learning (3 Sem. Hrs.)**
This course is a survey of the theories and concepts related to learning. The course will cover historical background, respondent conditioning, operant conditioning, imitation and cognitive models.
- PS 341 Statistics With Advanced Topics In Behavioral Science (3 Sem. Hrs.) (Also listed as SO 341)**
Prerequisite: Precalculus Algebra or Finite Mathematics
This course looks at the use of descriptive and inferential statistics to analyze behavioral science data. Advanced inferential topics help prepare students for graduate school.
- PS 342 Methods of Behavioral Science Research (3 Sem. Hrs.) (Lab fee) (Also listed as SO 342)**
Prerequisite: PS/SO 341
This course is concerned with theory design and collection of data in behavioral science research with emphasis on the techniques of collecting, analyzing, and interpreting behavioral science data.
- PS 350 Forensic Psychology (3 Sem. Hrs.)**
This course is designed to provide a general introduction to theory, research findings, and methods used in Forensic Psychology. This course examines the interaction of the practice or study of psychology and the criminal justice system. Topics covered will include investigative, legal, criminal and correctional psychology, as well as victim services.
- PS 351 Mental Health in the Prison System (3 Sem. Hrs.)**
This course is designed to provide a critical and focused review of knowledge and best practice in the field for mental health and corrections professionals. This course will address concerns with policy and management of services for these offenders while providing a review of approaches to specific mental problems, and review evidence of effectiveness.
- PS 352 Abnormal Psychology (3 Sem. Hrs.)**
This course presents an in-depth survey of the field of psychopathology. Emphasis is placed on current DSM terminology and diagnostic criteria and on research and treatment of mental disorders. All major diagnoses are covered. Attention is focused on contemporary issues in the field.
- PS 353 The Psychology of Sexual Aggression (3 Sem. Hrs.)**
This course is designed to provide students with a general introduction to the psychology of sexual assault and the response of the criminal justice system to sex crimes. This course will examine the psychological impact of sexual assault on victims as well as the psychology of perpetrators of sexual assault. Topics covered will include sexual assault definitions and myths, victim response and recovery, profiles of rapists and child molesters, as well as prosecution and treatment of sexual offenders.
- PS 368 Industrial and Organizational Psychology (3 Sem. Hrs.)**
Industrial-organizational (I-O) psychology is the scientific study of the workplace. Rigor and methods of psychology are applied to issues of critical relevance to business, including talent management, coaching, assessment, selection, training, organizational development, performance, and work-life balance.

- PS 380 Experimental Psychology (3 Sem. Hrs.)**
Prerequisites: Psychology Major or Minor and PS/SO 341
 This course is an introductory course in experimental methods and procedures in psychology. Topics of discussion will include: hypothesis formation, internal and external validity, true experimental designs, quasi-experimental designs, single-subject designs, evaluation research, data collection, ethics, and formal reporting.
- PS 402 Clinical Psychology (3 Sem. Hrs.)**
Prerequisite: PS 352
 This course is an introduction to personality theory and the techniques of counseling and psychotherapy. An approach to psychotherapy and psychotherapeutic techniques will be emphasized within which various schools of thought can be considered in terms of a common framework.
- PS 406 Physiological Psychology (3 Sem. Hrs.) (Lab fee)**
 This course is a study of the relationships between physiological and psychological functions with special emphasis on mind-body interaction and the physiological explanations for human behavior. Topics of study include: nervous and endocrine systems, sleeping and waking, ingestive behavior, sexual behavior, reinforcement, punishment, motivation, emotions, and learning (disabilities, dysfunctions, etc.).
- PS 410 History and Systems of Psychology (3 Sem. Hrs.)**
 This course considers the scientific and philosophical antecedents of psychology, in addition to the history of the discipline. The course spans pre-Socratic thought to current and emerging issues in the field of psychology.
- PS 420 Cognitive Psychology (3 Sem. Hrs.)**
 This is an advanced psychology course that surveys the major topics in cognitive psychology. Special emphasis will be focused on attention, memory, language usage, problem solving, and decision making. It is strongly recommended that the student have completed Statistics With Advanced Topics in Behavioral Science and either Experimental Psychology or Methods of Behavioral Science Research.
- PS 425 Tests and Measurements (3 Sem. Hrs.) (Lab fee)**
Prerequisite: PS/SO 341
 This course is designed as an introduction to psychological testing. Emphasis will be placed on the design, analysis, and interpretation of psychological tests. Topics will include aptitude, ability, personality, memory, and intelligence.
- PS 441 Special Topics in Psychology (1 Sem. Hr.)**
PS 442 Special Topics in Psychology (2 Sem. Hrs.)
PS 443 Special Topics in Psychology (3 Sem. Hrs.)
PS 444 Special Topics in Psychology (4 Sem. Hrs.)
 These courses will be offered on occasion of student demand or need.
- PS 461 Directed Studies in Psychology (1 Sem. Hr.)**
PS 462 Directed Studies in Psychology (2 Sem. Hrs.)
PS 463 Directed Studies in Psychology (3 Sem. Hrs.)
 These courses will be offered on occasion of student demand or need. The student studies in an area of his/her particular interest approved by the instructor.
- PS 498 Internship in Psychology (3 Sem. Hrs.)**
Prerequisite: Permission of instructor
 This course provides the student an opportunity to experience the theoretical concepts and knowledge obtained in the classroom. The internship entails approximately eight hours per week of supervised field experiences in appropriate community agencies, institutions, industrial or research settings, and bi-weekly in-class seminars.
- PS 499 Thinking, Writing, and Speaking in the Behavioral Sciences (3 Sem. Hrs.) (Also listed as SO 499)**
Prerequisite: Senior standing
 All students majoring in the Behavioral Science department must take during their last semester prior to graduation. It will emphasize thinking, writing, and speaking effectively. Therefore, areas in which students are deficient will be emphasized individually, through writing and speaking engagements during the course. Students will be taught critical thinking skills and will be intermittently assessed for such skills through objective examinations. Also, students will be assessed upon completion of the course for improvement in critical areas.

Religion (RE)

- RE 300 Religion, Culture, and Media (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
 This course examines the religious content of popular culture and media. This course guides the student through a study of cultural and media events that have a religious emphasis. The class will combine a theological and sociological approach to the study of religion, culture, and media.
- RE 301 Religions That Shaped the World (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
 This course is a survey of religions from ancient Egypt, Mesopotamia, Greece, Persia, Rome, Africa, America and the Eastern Religions of India, China, and Japan. This course will examine how these religions have shaped and continue to shape our religious world views.
- RE 302 Religion and Literature (3 Sem. Hrs.)**
 This course is a study of various theological themes as they appear in literature. This course involves students in the study of great

works of literature that have a religious motif, which is an interdisciplinary field of inquiry. It provides the student the opportunity to reflect on the great themes that emerge from both fields of study.

- RE 303 Current Religious Movements and Issues (3 Sem. Hrs.)**
(Fulfills General Education Area II Humanities)
This course is an examination of current religious issues and movements which are influential in the thought and practice of modern society.
- RE 307 Essentials of Religious Studies (3 Sem. Hrs.)**
This course outlines the essentials of Religious Studies by looking at topics and themes such as doctrine, ritual, scripture, mysticism, pilgrimage, and myth across major religions, while also introducing methodological approaches to the comparative study of religion. The course is designed to provide an overview and critical examination of questions and issues regarding religious studies. Terms, main themes, and prominent thinkers will be included. Further, the course explores perceptions about how religion is understood, exposes matrices of relationships between ideas and practices, and supplies initial steps toward discovery of how religion and religious life are interwoven with economic, cultural, and political commitments.
- RE 308 Essentials of Biblical Studies (3 Sem. Hrs.)**
This course will provide students who are preparing for graduate studies or those who want to know about the field of biblical studies an overview of the field. There are no prerequisites for this course. The course will contain discussion of biblical content, methods used to interpret biblical text, and some very basic information about biblical language and manuscripts.
- RE 309 The Bible and Its Influence (3 Sem. Hrs.)**
The Bible and Its Influence is an overview of the story of the Bible and the influence the Bible has had in shaping western culture. This course will provide a survey of the biblical story. The influence of the Bible on western culture in art, history, music and literature will be explored. The course also introduces an historical-metaphorical approach to reading the Bible.
- RE 320 Church Management and Finances (3 Sem. Hrs.)**
This course will provide students with an overview of the theory and practice of administration in the local church and other non-profits by exploring the best practices of leadership, finances, and administration. Additional topics to be addressed include goal setting, team building, delegation, human relationships, resourcing, budgeting, working with committees, legal issues, personnel management, church operations, and the training of leaders.
- RE 325 Philosophy of Religion (3 Sem. Hrs.) (Also listed as PH 325)**
(Fulfills General Education Area II Humanities)
This course is a philosophical study of the grounds of religious belief and practice, the relationship of man to God and its implications for morality and the belief in life after death. Special attention is given to the impact of science upon religion.
- RE 327 Sociology of Religion (3 Sem. Hrs.) (Also listed as SO 327)**
This course looks at the interaction, interpretation, and interrelationships of religion, society, and individual morality in American religious behavior and institutions.
- RE 351 Introduction to Christian Thought (3 Sem. Hrs.)**
This course is a critical study of contemporary Christian theological perspectives, which will cover a broad spectrum of current theological perspectives including evangelical, conservative, liberal, neo-reformation, liberationist, feminists, and other post-modern approaches.
- RE 401 History of Judaism (3 Sem. Hrs.)**
This course presents Judaism from the destruction of the Temple through medieval times. It examines the world of Talmud, Midrash, Response and the general Diaspora. Requires reading from historical and tenetial sources.
- RE 402 History of Islam (3 Sem. Hrs.)**
This course presents Islam from its beginning, in an historical, religious, and geographical context, to its major geographical, doctrinal, and sectarian spread internationally.
- RE 403 Religion in Life (3 Sem. Hrs.)**
This course is an examination of religious ethics from various religious perspectives with the primary focus on western religious traditions and a comparison of western traditions with eastern ones observing both similarities and differences.
- RE 409 Christian Thought in Early Centuries (3 Sem. Hrs.)**
This course examines Christian thought and covers the Life of Jesus, Paul, and other leaders of the Early Church. The primary aim for this course is to examine the birth and development of the early Christian religion. It focuses primarily on the life and influence of Jesus and Paul. The overall view of the social world into which Christianity emerged and developed will be explored.
- RE 410 Leading Change in Faith Communities and Other Non-Profits (3 Sem. Hrs.)**
This course is a survey of leadership challenges and principles concerning change in faith communities and other non-profits. Leadership philosophies and techniques will be explored from the life of Jesus, Paul, and leaders of other faith traditions. The course will also examine leadership principles from other non-profit sectors. The primary aim of this course is to identify and examine leadership principles that lead to excellence. The course will look at the philosophical, social, psychological, theological and spiritual aspects of leadership.
- RE 411 Age of the Reformation, 1350 – 1610 (3 Sem. Hrs.) (Also listed as HY 411)**
(Satisfies the European requirement for a B.A. or minor in history as well as elective requirement for the minor and Non-American History for a B.S. in Social Science.) This course is a survey of the history of church and state in Europe from the Great Schism through the Protestant Reformation to the eve of the Thirty Years War.
- RE 412 The Hebrew Prophets (3 Sem. Hrs.)**
This course is an examination of the settings, psychology, and conventional forms of prophecy in the ancient Near East as well as the

writings of the former and latter prophets of the Old Testament.

- RE 413 Psalms and Wisdom Literature (3 Sem. Hrs.)**
This course is an examination of the poetry, forms, and theology in the book of Psalms along with a study of the Wisdom Literature including the Books of Proverbs, Job, Ecclesiastes, and other 4th and 3rd century BC writings.
- RE 416 Interpreting the Text (3 Sem. Hrs.) (Also listed as EH 416)**
This is an examination of various ancient, historical, and literary methods of interpreting literature covering the range from ancient ways of reading texts to current poststructuralist approaches. Even though primary emphasis will center on religious texts, there will be considerable attention given to issues and methods that emerged from the realms of the social sciences, literature, and philosophy.
- RE 417 Religious Studies Project (3 Sem. Hrs.)**
This course will allow students to receive credit for work-based experience in a particular area of religious studies. A few examples would be working in non-profit organizations, working with a professional in some area of church work, working with a religious organization who does outreach ministries to the homeless or organizations that promote dialogue between peoples of different faith, etc.
- RE 421 Sacred Art in History (3 Sem. Hrs.) (Also listed as AR 421)**
This course explores the relationships between art and religion bringing theories of religious and aesthetic experience together. It gives an overview of the history of sacred art worldwide and it introduces students to religious functions of contemporary art. The course concentrates on the ways in which sacred and spiritual beliefs influence the creation of works of art using various cultures from around the world and throughout history. Students learn to understand aesthetic experiences with critical reflection and explain it to others.
- RE 426 Social Change and Transformational Leadership (3 Sem. Hrs.)**
This course is a study of social change and leadership challenges and principles concerning change. Leadership philosophies and techniques will be explored from the life of people who have provided transformational leadership. Martin Luther King, Jr., Ghandi, Mother Theresa, and Nelson Mandela provide a sampling of transformational leaders we will be studying. The primary aid of this course is to identify and examine leadership principles that lead to transformational change in organizations and communities. The course will look at the philosophical, social, psychological, theological and spiritual aspects of leadership.
- RE 427 Jesus, Muhammad, and Buddha (3 Sem. Hrs.)**
Jesus, Muhammad, Buddha is a course designed as an exploration into the academic study of religion in three major faith systems of the world through a comparative approach. As students study the religions of Buddhism, Christianity and Islam, they will learn about their foundations, what they believe, and how they express their beliefs. This course will provide students a better understanding of different cultures, religions, social systems and historical contexts. The understanding of these religions and their contributions along with how they can cooperate together will be studied. The ability to respect differences and value diversity will be promoted.
- RE 428 Religion and Cultural Diversity (3 Sem. Hrs.)**
This course will examine religious responses to societal and cultural diversity. The course will explore different religious worldviews in the areas of social justice, social and economic class, sexuality and gender, and race. It explores how different religious traditions across the world deal with these issues.
- RE 430 Biblical Hebrew Language and Grammar (3 Sem. Hrs.)**
This course is an inductive approach, utilizing the Biblical narratives, especially in Genesis and the Books of Kings.
- RE 431 Directed Studies in Translating Texts from Hebrew Bible (3 Sem. Hrs.)**
Prerequisite: RE 430
This course emphasizes conjugations, syntax, and morphology, Hebrew poetry, and Hebrew narrative.
- RE 440 The Language and Grammar of the New Testament (3 Sem. Hrs.)**
This course is for beginners. Greek grammar utilizes New Testament vocabulary.
- RE 441 Directed Studies in Translating New Testament Texts (3 Sem. Hrs.)**
Prerequisite: RE 440
This course is a continuation of RE 440.
- RE 442 Special Topics in Religion (1-3 Sem. Hrs.)**
This course will be offered on occasion of student demand or need.
- RE 452 Problems of Evil and Suffering (3 Sem. Hrs.)**
Problems of Evil and Suffering is a course that will primarily examine the biblical responses to suffering and the origin and reality of evil. This study will also explore and critique the religious and philosophical answers that have been offered in the face of suffering and evil.
- RE 461 Directed Study/Research in Religion (1 Sem. Hr.)**
Prerequisite: Permission of instructor (Open only to superior majors)
This course will be offered on occasion of student demand or need. May be repeated for up to six additional hours of credit.
- RE 462 Directed Study/Research in Religion (2 Sem. Hrs.)**
Prerequisite: Permission of instructor (Open only to superior majors)
This course will be offered on occasion of student demand or need. May be repeated for up to six additional hours of credit.

- RE 463 Directed Study/Research in Religion (3 Sem. Hrs.)**
Prerequisite: Permission of instructor (Open only to superior majors)
 This course will be offered on occasion of student demand or need. May be repeated for up to six additional hours of credit.
- RE 464 Religious Studies Capstone Course (1 Sem. Hr.)**
 This capstone course must be taken during the student's final semester of work. Students will be expected to know critical content and demonstrate their knowledge through critical thinking in their research, writing, and oral presentation. In collaboration with the religion faculty, each student will propose a research project related to one of the following areas: sociology of religion, biblical studies, or theology and upon completion will make an oral presentation of his or her paper. Research should include a history of scholarship relating to the issues or problems under investigation.

Secondary Education (SC)

- SC 331 Classroom Management in Secondary Education (3 Sem. Hrs.)**
Field experience is required. This course is designed to facilitate the acquisition of professional attributes, to improve oral and written communication skills, to acquire classroom management skills appropriate for middle and high school classrooms and become cognizant of the impact of significant educational trends and issues. **Course includes Lee v. Macon "Positive Behavioral Supports" training as required by the Alabama State Department of Education.**
- SC 333 Teaching Reading/Writing in the Content Areas (3 Sem. Hrs.)**
Prerequisites: ED 301 and ED 302
Course requirements include mandatory campus-based training. Consult the College of Education Calendar of Events Webpage for more information. Teaching Reading and Writing in the Content Area is designed to model creative strategies to promote reading comprehension, vocabulary development, English as a Second Language strategies, and study skills in humanities, social sciences, natural sciences, mathematics, collaborative education, and vocational education for students in middle school and secondary school. **Course includes Lee v. Macon "Makes Sense Strategies" training as required by the Alabama State Department of Education.**
- SC 350 Foundations of Middle Level Education (3 Sem. Hrs.)**
 This course explores the tenets of exemplary middle level education for today's young adolescent learner. Emphasis is placed on the developmental needs of young adolescent learners, the historical and philosophical foundations of middle level schooling, structures, and programs of highly successful middle level schools, and the latest trends and issues in middle level education.
- SC 362 Assessment and Evaluation in Secondary Education (3 Sem. Hrs.)**
Prerequisite: Admission to the Teacher Education Program
 This course addresses issues related to creating effective assessment tools for classroom use, factors which impact student performances and achievement, and strategies to effectively assess student understanding. Standardized tests are also studied along with the foundation of analysis and interpretation as well as the effects of "high stakes" testing.
- SC 400 Field Work Practicum I (1 Sem. Hr.)**
Prerequisites: ED 301 and ED 302
 SC 400 Field Work Practicum I is designed to address one semester of the secondary students' field experience requirements that include critical assignments for EdTPA. EdTPA is a performance assessment of readiness to teach. The portfolio assessment is designed with a focus on student learning. As a performance-based assessment, edTPA is designed to engage teacher candidates in demonstrating their understanding of teaching and student learning. Candidates complete tasks and commentaries within a portfolio relevant to their programs.
- SC 401 Field Work Practicum II (1 Sem. Hr.)**
Prerequisites: Admission to Teacher Education Program and SC 400
 SC 401 Field Work Practicum II is designed to address the second semester of the secondary students' field experience requirements that include critical assignment for edTPA. EdTPA is a performance assessment of readiness to teach. The portfolio assessment is designed with a focus on student learning. As a performance-based assessment, edTPA is designed to engage teacher candidates in demonstrating their understanding of teaching and student learning. Candidates complete tasks and commentaries within a portfolio relevant to their programs.
- SC 430 Curriculum Design for the Middle Level Learner (3 Sem. Hrs.)**
 The focus of SC 430 is curriculum design and responsibilities for teaching the middle level learner. Because of the various content areas involved in teaching middle level learners, the course will be divided into two parts. The first half will explore the curriculum within the learning context: Who are my students? What is the context of my work? How can I best support my students? How can I involve my students' families and the communities where they live? The second half will focus on instruction. It will include developmentally and culturally appropriate strategies, planning and assessment for specific content areas of the middle level curriculum. A major component of Part II will be analyzing instructional units for the students' content area (e.g., math, social studies, language arts, history, science) as well as creating one.
- SC 486 Internship in High School (4-12 Sem. Hrs.) (Teaching Internship fees)**
Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office
 Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

Special Education (SE)

- SE 301 Survey of Exceptional Learners (3 Sem. Hrs.)**
Note: Field experience may be required depending on a student's major. A general survey course which addresses etiology, identification, incidence, curriculum modification, parent interaction, placement options, and inclusion of all types of educationally exceptional learners in general education settings. **Course includes Lee v. Macon "Addressing Disproportionality in Alabama Schools" training as required by the Alabama State Department of Education.**
- SE 303 Introduction to Early Childhood Special Education (3 Sem. Hrs.)**
This course provides a rationale for Early Childhood Special Education programs covering legislative, empirical evidence, and ethical considerations. The course provides information pertaining to typical development and factors affecting that development. Partnerships with families are discussed pertaining to family-centered practices, family support systems, and elements of effective partnerships. Developmental domains such as gross-motor development, fine motor development, self-care skills, cognitive development, communication development, and social/emotional development are also taught within this course.
- SE 315 Characteristics and Identification of Students with Moderate to Severe Disabilities (3 Sem. Hrs.)**
Prerequisites: SE 301 and SE 325
Characteristics and Identification for Students with Moderate to Severe Disabilities is a course covering definitions, descriptions, characteristics, and the potential of students who have moderate to severe disabilities. Practices for teaching, collaboration among professionals and paraprofessionals, working with parents, families and addressing cultural issues will be covered within this course. Specific instructional and management procedures such as managing sensory and motor systems, providing support for health and medical needs, teaching personal care skills, and fostering friendships and recreational involvement will also be covered.
- SE 325 Characteristics and Identification of High Incidence Disabilities (3 Sem. Hrs.)**
Prerequisite or Concurrent Enrollment: SE 301
This course provides an overview of causes, characteristics, and issues associated with learning disabilities, emotional disabilities, and behavioral disabilities.
- SE 335 Curriculum Development and Adaptations (3 Sem. Hrs.)**
Prerequisite: Math or reading course (ER 323 or EL 324)
Prerequisite or Concurrent Enrollment: SE 301
This course teaches the sources and development of appropriate curricula for a wide variety of students. It will include familiarity with state courses of study for inclusive settings as well as intense curricula for social and occupational needs in the special education setting.
- SE 355 Curriculum and Instruction for Learners with High Incidence Disabilities (3 Sem. Hrs.)**
Prerequisite: SE 325
Field experience is required. This course provides the pre-service teacher with alternative corrective procedures for a variety of academic, social, and occupational problems. **Course includes Lee v. Macon "Makes Sense Strategies" training as required by the Alabama State Department of Education.**
- SE 400 Methods Adapting Early Childhood Curricula for Children with Special Needs (3 Sem. Hrs.)**
This course provides a strong emphasis on the importance of understanding the natures of all young children and how they learn. A thorough understanding of the complex development domains such as social-emotional, motor, communication, and cognitive skills will be emphasized throughout this course. Strategies for meeting the developmental education needs of infants and young children who have disabilities or who experience circumstances or conditions that potentially interfere with optimal growth and adjustment will be the focus.
- SE 402 Assessment of Exceptional Learners (3 Sem. Hrs.) (Lab fee)**
Prerequisite: SE 301
This course provides training and hands-on experience with formal & informal tests and rating scales for use with exceptional students at elementary and secondary school levels. Topics include basic concepts of measurement, test development and technical characteristics, test administration, test scoring, and score interpretation. Administration of a battery of tests and preparation of a formal report are required.
- SE 415 Transition Planning and Learning Strategies for Adolescents with Disabilities (3 Sem. Hrs.)**
Prerequisite: SE 301
This course provides Collaborative 6-12 majors with strategies for preparing secondary students with disabilities for successful high school experiences and for a variety of post-school outcomes.
- SE 420 Strategies for Gifted and Talented Students (3 Sem. Hrs.)**
This course focuses on curricular and instructional models and strategies for teaching gifted and talented students. Curriculum theories, models, strategies, and concepts are addressed.
- SE 425 Collaboration for Instruction and for Program Planning (3 Sem. Hrs.)**
Prerequisite: Admission to the Teacher Education Program
This course provides models of collaboration which can be implemented in any public school setting. Furthermore, collaborative techniques which address interaction with a wide variety of stakeholders throughout the special education process will be addressed. Legal requirements of the Individuals with Disabilities Education Improvement Act (IDEA), its accompanying federal regulations, and state requirements will be thoroughly investigated. Requirements of the course include written Individual Education Plans (IEPs) which are legally defensible and participation in simulated special education process meetings. This course has no field experience.
- SE 435 Curriculum and Instruction for Students with Moderate to Severe Disabilities (3 Sem. Hrs.)**

Prerequisites: SE 315 and SE 355

Field experience is required. Curriculum and Instruction for Students with Moderate to Severe Disabilities is a course that provides training and hands-on experience with intervention strategies for student with moderate to severe cognitive, physical, and emotional disabilities. This course covers how to teach new skills when working with this population (i.e., instructional prompts, systematic instruction, and considerations for teaching students with Autism). Teaching skills for generalization and maintenance is emphasized. The instruction of communication skills, providing behavior support to improve challenging behaviors, and using assistive technology is also covered within this course.

SE 455 Language Development and Developmental Interactions (3 Sem. Hrs.)

Prerequisite: SE 301

This course emphasizes the development of language (including phonology, morphology, syntax, semantics, and pragmatics), cognitive, social development and their relationship to language development. Topics include theory and stages of language and cognitive development and strategies and materials used to meet the developmental needs of young children who are developing typically and those with developmental delay and disability.

SE 460 Students on the Autism Spectrum (3 Sem. Hrs.)

This course covers a variety of perspectives on evidence-based practices as well as the tenets of competent, humanistic, and meaningful support when working with learners who have autism spectrum disorder (ASD). Brain-behavior connections will be covered understanding how central coherence and information processing impact individuals with ASD. Social-pragmatic theory and its relevance in autism will be defined and what assessment considerations should be considered. Fostering play, imagination, and friendships with peers will be covered with discussion on how important such concepts become for students with autism. Finally, one parent's perspective will be shared within their textbook entitled Growing up with Autism describing a personal account of raising a child with autism.

SE 462 Evidence-Based Intervention Strategies for Autism and Developmental Disabilities (3 Sem. Hrs.)

This course will focus on research-based interventions that promote progress in areas such as communication, social, academic, behavior, and sensory motor skills when working with students diagnosed with Autism. Interventions identified will include Augmentative and Alternative Communication strategies, Discrete Trial Instruction, Differential Reinforcement, Shaping, DIR model and its application, Functional Communication Training, Enhanced Milieu Teaching, Early Social Interaction, Peer-Mediated Support Interventions, Picture Exchange Communication System (PECS), Pivotal Response Treatment, Social Stories, and Video Modeling Applications. A DVD is provided in Prelock & McCauley (2012) textbook demonstrating key interventions that will be covered within this course. A performance-based Intervention Project will be required.

SE 464 Using Behavior Analysis for Effective Teaching (3 Sem. Hrs.)

This course will explore adding science to the art of teaching by touching upon the causes of behavior and understanding what we mean by learning. Methods on how to identify and set goals to improve achievement using objectives to decrease negative behaviors will be covered. Recording methods, charting and graphing focused on the effectiveness of improving instruction will also be explored. Emphasis will be placed on a teacher as a researcher conducting research as the culminating Final project.

SE 466 Supporting Children & Adults with Complex Communication Needs (3 Sem. Hrs.)

This course covers an introduction to Augmentative and Alternative Communication exploring the processes, message management, symbols and rate enhancement, alternative access, principles of assessment and the principles of decision-making, intervention, and evaluation. Augmentative and Alternative Communication interventions for Individuals with Developmental Disabilities will be covered next with communication for beginning communicators, language development and intervention focused on the challenges, the supports, and the instructional approaches. Instruction to support linguistic and social competence, literacy intervention and education inclusion for individuals with more complex communication needs will also be covered. Augmentative and Alternative Communication interventions for individuals with acquired disabilities will focus on adults with acquired physical conditions, adults with severe aphasia and apraxia of speech, adults with degenerative cognitive and linguistic disorders, individuals with Traumatic Brain Injury, and within the intensive, acute and Long-Term acute medical settings will be covered.

SE 465 IEPs and Other Legal Issues (3 Sem. Hrs.)

Prerequisite: Admission to the Teacher Education Program

This course provides an overview of laws and regulations governing the implementation of special education services including federal and state regulations as well as relevant court cases. It will include development of IEPs for a variety of students.

SE 476 Internship for Collaborative Education K-6 (6-12 Sem. Hrs.) (Teaching Internship fees)

Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office

Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

SE 477 Internship for Collaborative Education K-6 (3-6 Sem. Hrs.) (Teaching Internship fees)

Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office

Seven-week internship program for persons seeking certification through the Elementary/Collaborative K-6 degree. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

SE 478 Internship for Collaborative Education 6-12 (6-12 Sem. Hrs.) (Teaching Internship fees)

Prerequisites: Admission to the Teacher Education Program and clearance by the Internship Office

Internship shall equal at least a full semester, full-time in the teaching field for which certification is sought, and may require more

than one placement. This culminating experience of the Teacher Education Program provides practical experience in teaching classes in state-accredited schools under the guidance of a cooperating teacher and a University supervisor. Successful completion of the edTPA Portfolio - obtained by a documented approved Alabama SDE cut score - is required for successful completion of Internship. Seminar and edTPA Support Sessions attendance is required.

SE 495 Classroom Management and Discipline (3 Sem. Hrs.)

Prerequisite: SE 301

This course is designed to develop students' understanding of classroom dynamics and behavioral problems. Topics include physical environment management and curriculum management as well as a variety of disciplinary strategies. Functional behavioral assessment and behavior intervention/management planning are covered. **Course includes Lee v. Macon "Positive Behavioral Supports" training as required by the Alabama State Department of Education.**

Sociology (SO)

SO 301 Gender and Multicultural Studies (3 Sem. Hrs.) (Also listed as PS 301)

(Fulfills General Education Area IV Social/Behavioral Science)

This course is an introduction to the concepts, terminology, and issues in gender and multicultural studies including exploration of America's multicultural composition, gender as an element of culture, and contemporary issues in the field.

SO 304 Sociology of Work (3 Sem. Hrs.)

This course consists of sociological analysis of work in pre-industrial and industrial societies; a consideration of problems involved in the conceptual and empirical study of occupations and professions; an examination of the process of professionalism; and the study of leisure and the social consequences of changes in occupations and professions.

SO 312 Majority/Minority Group Relations (3 Sem. Hrs.)

(Fulfills General Education Area IV Social/Behavioral Science)

This course is a study of the principles and processes which shape the patterns of relations between majority groups, racial, ethnic, and other groups, with emphasis on American society, along with a comparison of intergroup relations in other societies.

SO 314 Population Study (3 Sem. Hrs.)

This course examines the relationship of demographic factors to the social structure. Trends in fertility, mortality, population growth, distribution, migration, and composition will be investigated.

SO 327 Sociology of Religion (3 Sem. Hrs.) (Also listed as RE 327)

This course looks at the interaction, interpretation, and interrelationships of religion, society, and individual morality in American religious behavior and institutions.

SO 341 Statistics With Advanced Topics In Behavioral Science (3 Sem. Hrs.) (Also listed as PS 341)

Prerequisite: Precalculus Algebra or Finite Mathematics

This course looks at the use of descriptive and inferential statistics to analyze behavioral science data. Advanced inferential topics help prepare students for graduate school.

SO 342 Methods of Behavioral Science Research (3 Sem. Hrs.) (Lab fee) (Also listed as PS 342)

Prerequisite: PS/SO 341

This course is concerned with theory design and collection of data in behavioral science research with emphasis on the techniques of collecting, analyzing, and interpreting behavioral science data.

SO 345 Social Stratification (3 Sem. Hrs.)

Social stratification is the study of the unequal distribution of resources that are scarce, but widely desired, and of the processes by which these resources are allocated to individuals and groups in society. It encompasses the study of inequality along lines of income and wealth, occupational and class hierarchies, educational opportunity, poverty, inter and intra generational social mobility, gender, race and ethnicity, and the consequences of inequality for society.

SO 351 American Public Policy/Political Sociology (3 Sem. Hrs.)

This course explores factors that impact government's responses to a wide variety of social conditions. The process for making policy, the content of current policy, and the impact of policy receive attention.

SO 352 Sociology of Health and Illness (3 Sem. Hrs.) (Also listed as HS 460)

This course utilizes the sociological perspective to introduce a range of topics which illustrate the intimate connection between human behavior and health outcomes, the behavior of the healthcare institution, and the nature of the United States healthcare system.

SO 353 Sociology of Death and Dying (3 Sem. Hrs.)

This course is a study of the sociological aspects of death and dying. This course will explore both the historical and contemporary issues within the sociology of death and dying. The study of death and dying will provide a foundation for dealing with death in your personal life as well as in your profession/career.

SO 360 Contemporary American Family (3 Sem. Hrs.)

This course examines the origins and evolution of the American family as a social institution and the relationship of family structure to social organization. Emphasis will be placed upon the development of the family from colonial days to its contemporary forms and the larger social context within which the family has developed.

SO 361 Social Analysis (3 Sem. Hrs.)

(Fulfills General Education Area IV Social/Behavioral Science)

This course examines the basic principles of social organization including an examination of the structure and function of groups and complex organizations including social institutions, with special emphasis on their operation in American society.

- SO 362 Deviant Social Behavior (3 Sem. Hrs.)**
This course is an in-depth examination of the social implication of labeling deviant behavior and its effects upon both the individual and society.
- SO 363 Social Structure and Personality (3 Sem. Hrs.)**
This course analyzes the relationship of the culture and individual behavior through social influences.
- SO 400 Culture and Globalization (3 Sem. Hrs.) (Also listed as SS 400)**
An overview of the phenomenon called globalization, using a corollary examination of culture as one of the main catalysts which increases the interdependence of people's lives, making more obvious the interplay of micro- and macro-level social forces.
- SO 441 Special Topics in Sociology (1 Sem. Hr.)**
SO 442 Special Topics in Sociology (2 Sem. Hrs.)
SO 443 Special Topics in Sociology (3 Sem. Hrs.)
SO 444 Special Topics in Sociology (4 Sem. Hrs.)
These courses are a study of social issues and contemporary social problems and their consequences.
- SO 460 Sociological Theories (3 Sem. Hrs.)**
This course examines the history of theories and principles of sociological theory with emphasis on current theory and its relationship to research.
- SO 461 Directed Study/Research in Sociology (1 Sem. Hr.)**
SO 462 Directed Study/Research in Sociology (2 Sem. Hrs.)
SO 463 Directed Study/Research in Sociology (3 Sem. Hrs.)
Prerequisite: Senior-level majors only
These courses are designed to examine selected topics from a sociological perspective.
- SO 471 Aging in a Mass Society (3 Sem. Hrs.)**
This course is a study of the aging process, the special problems encountered by the aging and by the institutions of society involved in the care of the aging.
- SO 498 Internship in Sociology (3 Sem. Hrs.)**
Prerequisite: Permission of instructor
This course provides the student an opportunity to experience the theoretical concepts and knowledge obtained in the classroom. The internship entails approximately eight hours per week of supervised field experiences in appropriate community agencies, institutions, industrial or research settings, and bi-weekly in-class seminars.
- SO 499 Thinking, Writing, and Speaking in the Behavioral Sciences (3 Sem. Hrs.) (Also listed as PS 499)**
Prerequisite: Senior Standing
All students majoring in the Behavioral Science department must take during their last semester prior to graduation. It will emphasize thinking, writing, and speaking effectively. Therefore, areas in which students are deficient will be emphasized individually, through writing and speaking engagements during the course. Students will be taught critical thinking skills and will be intermittently assessed for such skills through objective examinations. Also, students will be assessed upon completion of the course for improvement in critical areas.

Social Science (SS)

- SS 400 Culture and Globalization (3 Sem. Hrs.) (Also listed as SO 400)**
An overview of the phenomenon called globalization, using a corollary examination of culture as one of the main catalysts which increases the interdependence of people's lives, making more obvious the interplay of micro- and macro-level social forces.
- SS 430 Globalization: Concepts and History (3 Sem. Hrs.) (Also listed as HY 430)**
(Satisfies the American, European, or Non-Western requirement based on a B.A. or a minor in history as well as elective requirements for the minor and American or Non-American History for the B.S. in Social Science.) Globalization is a phenomenon that in the last fifty years has come to be explicitly recognized in the worlds of politics, economics, and culture. It also has ancient roots. This course will investigate the history, historiography, themes, and concepts associated with globalization.
- SS 450 Materials and Methods of Teaching the History and Social Sciences in the Middle School/High School (3 Sem. Hrs.) (Also listed as HY 450)**
Prerequisite: Admission to the Teacher Education Program
This course is intended to enhance students' abilities to plan, implement, and evaluate instructional activities in teaching history and social sciences and to select and use appropriate materials and equipment. Knowledge of the history and social sciences curriculum and middle and high school student characteristics will be increased. Students will actively participate in demonstrating and modeling strategies and techniques. The role of research will be emphasized.
- SS 453 International Relations: America and the World (3 Sem. Hrs.)**
A survey of the basic characteristics and theories of the international system examining international conflicts, economics, regional and international organizations, international law, strategic studies, and comparative government. The role of foreign affairs in the history of the United States will be given special emphasis.

University Success (UNV)

UNV 300AS Pathways to Success - AS (3 Sem. Hrs.) (For students majoring in College of Arts & Sciences programs)

UNV 300BU Pathways to Success - BU (3 Sem. Hrs.) (For students majoring in College of Business programs)

UNV 300ED Pathways to Success - ED (3 Sem. Hrs.) (For students majoring in College of Education or College of Arts & Sciences secondary education programs)

This course serves as an introduction on how to succeed as a student at Athens State University. It is designed to guide you through the necessary skills, techniques, and expectations to succeed at university and in your chosen career. This course will cover career and advising pathways, financial literacy, information literacy, technological literacy (including the technology used at Athens), cultural communications, and intellectual discourse. You will employ teamwork, online learning, and organization skills to complete coursework.

UNV 400AS Career Seminar - AS (1 Sem. Hr.) (For students majoring in College of Arts & Sciences programs)

UNV 400BU Career Seminar – BU (1 Sem. Hr.) (For students majoring in College of Business programs)

UNV 400ED Career Seminar – ED (1 Sem. Hr.) (For students majoring in College of Education or College of Arts & Sciences secondary education programs)

Prerequisite: UNV 300AS or UNV 300BU or UNV 300ED

This course focuses on career development and is designed to complement UNV 300, Pathways to Success. This seminar will better prepare students for their careers after graduation. The focus of the seminar will be to help students gain essential career skills including resume writing, cover letter writing, and interview skills. This course will be supported by expanded professional development for students in close connection with career services.