

ECONOMICS (ECO)

ECO 130 CONSUMER ELECTRONICS (3T)

3 credits

This course explores the application of general economic principles and practices concerning personal consuming, saving, and investing. It also stresses the relationship of sound personal financial management with successful career goals. Topics covered will include: consumerism, income and family financial planning, insurance, and investments.

ECO 231 PRINCIPLES OF MACROECONOMICS

(3T)

3 credits

This course is an introduction to macroeconomic theory, analysis, and policy applications. Topics include the following: scarcity, demand and supply, national income analysis, major economic theories concerning monetary and fiscal policies as stabilization measures, the banking system, and other economic issues or problems including international trade.

ECO 232 PRINCIPLES OF MICROECONOMICS

(3T)

3 credits

PREREQUISITE: ECO 231

This course is an introduction of the microeconomic theory, analysis, and applications. Topics include scarcity, the theories of consumer behavior, production and cost, markets, output and resource pricing, and international aspects of microeconomics.

EDUCATION

EDU 100 EXPLORING TEACHING AS A PROFESSION (1T, 2E)

2 credits

This course provides students with an opportunity to explore teaching as a career. The role of the teacher, the benefits of teaching, and the steps to becoming a teacher

Course Descriptions

are some of the topics that will be explored. Students will be exposed to examples of good teaching and self-assess their personal and professional qualities.

mercial and industrial wiring. Topics include electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles.

ELECTRICAL TECHNOLOGY (ELT)

ELT 104 DISTRIBUTION SYSTEMS **3 credits**
FORMERLY: ELT 217
(2T, 2E)

PREREQUISITE: ELT 108 and ELT 109

This course involves the theory, applications, calculations, and connections associated with transformers and power distribution systems commonly used in the electrical field.

ELT 108 DC FUNDAMENTALS (1T, 4E) **3 credits**
PREREQUISITE: MTH 092 OR MTH 098
COREQUISITE: ELT 109

This course provides a study of atomic theory, direct current (DC), properties of conductors and insulators, direct current characteristics of series, parallel, and series parallel circuits. Inductors and capacitors are introduced and their effects on DC circuits are examined. Students are prepared to analyze complex DC circuits, solve for unknown circuits variables and to use basic electronic test equipment. This is a CORE course.

ELT 109 AC FUNDAMENTALS (1T, 4E) **3 credits**
PREREQUISITE: MTH 092 or MTH 098
COREQUISITE: ELT 108

This course provides a study of the theory of alternating current (AC). Students are prepared to analyze complex AC circuit configurations with resistor, capacitors, and inductors in series and parallel combinations. Upon completion, students should be able to design AC circuits and explain the function of alternating circuits such as RLC, impedance, phase relationships and power factor. This is a CORE course.

ELT 110 WIRING METHODS (1T, 4E) **3 credits**

This course is a study of various tasks, wiring methods, materials, and associated NEC (National Electric Code) requirements that students will be required to work with in residential and commercial wiring courses.

ELT 116 RESIDENTIAL WIRING (4T, 4E) **6 credits**
PREREQUISITES: ELT 108 AND ELT 109

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations.

ELT 117 AC/DC MACHINES (1T, 4E) **3 credits**
PREREQUISITES: ELT 108 AND ELT 109

This course covers the theory and operation of DC motors single and three phase AC motors and the labs will reinforce this knowledge. Emphasis is placed on the various types of single and three phase motors, wiring diagrams, starting devices, and practical application in lab. This is a CORE course.

ELT 118 COMMERCIAL/INDUSTRIAL WIRING I **3 credits**
(1T, 4E)
PREREQUISITE: ELT 110

This course focuses on principles and applications of com-

ELT 192 PRACTICUM/INTERN/CO-OP (5I) **1 credit**
PREREQUISITE: Permission of Instructor

This course provides practical experience in the field early in the student's training as an electrician's helper on the job, working a special project or conducting research in a directed area of the field. Emphasis is placed on gaining hands on experience with tools of the trade as well as a better understanding of NEC directives. Upon completion, students should possess a higher state of proficiency in the basic skills of connecting electrical wiring and conduit; this course may be repeated with the instructor's permission.

ELT 193 PRACTICUM/INTERN/CO-OP (10I) **2 credits**
PREREQUISITE: Permission of Instructor

This course provides practical experience in the electrical craft as an electrician's helper on the job, working a special project or conducting research in a directed area of the field. Emphasis is placed on gaining hands on experience with tools of the trade as well as better understanding of NEC directives. Upon completion, students should possess a higher state of proficiency in the basic skills of connecting electrical wiring and conduit; this course may be repeated with the instructor's permission.

ELT 195 PRACTICUM/INTERN/CO-OP (15I) **3 credits**
PREREQUISITE: Permission of Instructor

This course provides additional practical experience in the electrical craft as an apprentice electrician or higher level working advanced projects or research in a directed area of the field. Emphasis is placed on gaining more hands on experience with tools of the trade as well as NEC directives while studying in the classroom two hours per week. Upon completion, students should possess a higher state of proficiency in all electrician skills and a better knowledge of testing for Electrical Journeyman's Block Test.

ELT 209 MOTOR CONTROLS 1 (1T, 4E) **3 credits**
PREREQUISITE: ELT 108 AND ELT 109

This course covers the use of motor control symbols, magnetic motor starters, running overload protection, push-button stations, sizing of magnetic motor starters and overload protection, and complex ladder diagrams of motor control circuits. Topics include sizing magnetic starters and overload protection, the use of push-button stations, ladder diagrams, and magnetic motor starters in control of electric motors, wye-delta starting, part start winding, resistor starting and electric starting devices. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using push-button stations and understand complex motor control diagrams.

ELT 212 MOTOR CONTROLS II (1T, 4E) **3 credits**
PREREQUISITE: ELT 209

This course covers complex ladder diagrams of motor control circuits and the uses of different motor starting techniques. Topics include wye-delta starting, part start winding, resistor starting and electronic starting devices. Upon

completion, the students should be able to understand and interpret the more complex motor control diagrams and understand the different starting techniques of electrical motors.

ELT 221 ELECTRONICS FOR ELECTRICIANS I (2T, 2E) 3 credits
PREREQUISITE: ELT 108 and ELT 109 or Permission of instructor

This course introduces students to the basic principles of solid state electronic equipment as found in many electrical and motor control circuits. Emphasis is placed on fundamental concepts of diodes, transistors, FET's and MOSFETs as they are used in electrical control circuits. Upon completion, students should understand the basic operation of solid state components and be able to perform basic troubleshooting tasks.

ELT 223 CABLE SPLICES & INSTALLATION (2T, 3M) 3 credits
PREREQUISITE: Permission of instructor

This course provides instruction in splicing and installing low and medium voltage power cable, hi -voltage cable, fiber optic cable, communication and voltage wiring systems. Emphasis is placed on sizes conductors and use of proper connectors and materials used in splicing and connecting. Upon completion, students should be able to properly size, splice, connect and insulate all types of cables.

ELT 231 PROGRAMMABLE CONTROLS I (2T, 2E) 3 credits
PREREQUISITE: ELT 108 AND ELT 109

This state-of-the art course includes the fundamental principals of programmable logic controls (PLCs) including hardware and programming. Emphasis is placed on but not limited to the following: hardwiring associated with the PLC, different options available with most PLCs and basic ladder logic programming. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.

ELT 232 PROGRAMMABLE CONTROLS II (2T, 2E) 3 credits
PREREQUISITES: ELT 108, ELT 109

This state-of-the-art course includes the principals of PLC's including hardware, programming and program design. Emphasis is placed on, but not limited to the following: developing working programs, timers, counters, different special functions, and designing programs from existing hardwired systems. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.

ELT 241 NATIONAL ELECTRIC CODE (3T) 3 credits
PREREQUISITE: ELT 108 and ELT 109 or Permission of instructor

This course introduces students to the National Electric Code. Emphasis is placed on locating and interpreting needed information within the NEC code manual. Upon completion, students should be able to locate code requirements for a specific electrical installation.

ELT 244 CONDUIT BENDING AND INSTALLATION (2T,2E) 3 credits

This course provides students the knowledge to properly bend electrical metallic tubing, rigid galvanized and intermediate metal conduit, and PVC conduit. Emphasis is placed on the theory and practical application of conduit bending methods. Upon completion, students should be able to get measurements, layout, and successfully bend conduit using hand type, mechanical, and hydraulic benders.

EMERGENCY MEDICAL PARAMEDIC (EMP)

EMP 189 APPLIED ANATOMY AND PHYSIOLOGY FOR THE PARAMEDIC (4T) 4 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

This course introduces human anatomy and physiology and includes concepts related to basic chemistry; fluid, electrolyte, and acid-base balance; functions of cells, tissues, organs, and systems; pathophysiology; and associated medical terminology. Emphasis is placed on applying content to signs, symptoms, and treatments; and situations commonly seen by paramedics. Upon course completion, students should be able to demonstrate a basic understanding of the structure and function of the human body.

EMP 191 PARAMEDIC PREPARATORY (2T) 2 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s).

NOTE: HPS-110, Introduction to Health Care may be substituted for this course.

This course introduces issues related to the practice of pre-hospital advanced life support as a career, with a focus on issues common to all health care professions. Content areas include: paramedic roles and responsibilities, well-being of the paramedic, illness and injury prevention, medical-legal-ethical issues, therapeutic communications, and medical terminology. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 192 PARAMEDIC OPERATIONS (2T, 2E) 3 credits
PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.
COREQUISITE: Approved anatomy and physiology course(s).

This course focuses on the operational knowledge and skills needed for safe and effective patient care within the paramedic's scope of practice. Content areas include: pathophysiology, life span development, ambulance operations, medical incident command, rescue awareness and operations, hazardous materials incidents, crime scene awareness, and Alabama EMS laws and rules. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

Course Descriptions

EMP 193 PATIENT ASSESSMENT AND MANAGEMENT

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course provides the knowledge and skills needed to perform a comprehensive patient assessment, make initial management decisions, and to communicate assessment findings and patient care verbally and in writing. Content areas include: airway management, history taking, techniques of the physical examination, patient assessment, clinical decision making, communications, documentation, and assessment based management. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 194 PARAMEDIC GENERAL PHARMACOLOGY

(1T, 2E)

2 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

NOTE: HPS-104, General Pharmacology for the Health Sciences may be substituted for this course.

This course introduces basic pharmacological agents and concepts, with an emphasis on drug classifications and the knowledge and skills required for safe, effective medication administration. Content areas include: general principles of pharmacology and pharmacologic pathophysiology; venous and intraosseous access techniques, the metric and apothecary system; computation of dosage and solution problems, administration of pharmacologic agents; and nasogastric tube placement. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 195 ADVANCED TRAUMA

MANAGEMENT A (2T, 2E, 9P3)

6 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies.

NOTE: The combination of EMP-196, Advanced Trauma Management-B, and EMP-197, Clinical Competencies-I will substitute for this course.

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for trauma patients. Content areas include the pathophysiology, assessment, and management of trauma as related to: trauma systems; mechanisms of injury; hemorrhage and shock; soft tissue injuries; burns; and head, facial, spinal, thoracic, abdominal, and musculoskeletal trauma. Theory and skills are applied to a variety of patient situations in the clinical setting, with a focus on patient assessment, trauma management, advanced airway management, I.V./I.O. initiation and medication administration. Upon course completion, students will have demonstrated competency in those respective

components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 196 ADVANCED TRAUMA MANAGEMENT B

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for trauma patients. Content areas include the pathophysiology, assessment, and management of trauma as related to: trauma systems; mechanisms of injury; hemorrhage and shock; soft tissue injuries; burns; and head, facial, spinal, thoracic, abdominal, and musculoskeletal trauma. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 197 PARAMEDIC CLINICAL

COMPETENCIES I (9P3)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies, EMS 113, and CPR verification.

This course is directed toward the application of knowledge and skills developed in didactic and skills laboratory experiences to the clinical setting. Theory and skills are applied to a variety of patient situations in the clinical setting, with a focus on patient assessment, trauma management, advanced airway management, I.V./I.O. initiation and medication administration. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 198 MEDICAL PATIENT MANAGEMENT I (2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation treatment plans for specific medical conditions. Content areas include: pulmonology, neurology, gastroenterology, renal/urology, toxicology, hematology, environmental conditions, infectious and communicable diseases, abuse and assault, patients with special challenges, and acute interventions for the chronic care patient. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 199 CARDIOVASCULAR ELECTROPHYSIOLOGY

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course introduces the cardiovascular system, cardiovascular electrophysiology, and electrocardiographic monitoring. Content areas include: cardiovascular anatomy and physiology, cardiovascular electrophysiology, electrocardiographic monitoring, rhythm analysis, and prehospital 12-lead electrocardiogram monitoring and interpretation. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 200 MEDICAL PATIENT MANAGEMENT IIA

(2T, 2E, 9P3)

6 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies.

NOTE: The combination of EMP-201, Medical Patient Management-IIB, and EMP-202, Clinical Competencies-II will substitute for this course.

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific medical conditions. Content areas include: endocrinology, allergies and anaphylaxis, behavioral/psychiatric conditions, gynecology, obstetrics, neonatology, pediatrics, and geriatrics. In the clinical setting, theory and skills are applied to a variety of medical situations across the life span of the patient, with a focus on communication with and management of cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 201 MEDICAL PATIENT MANAGEMENT IIB

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific medical conditions. Content areas include: endocrinology, allergies and anaphylaxis, behavioral/psychiatric conditions, gynecology, obstetrics, neonatology, pediatrics, and geriatrics. Students integrate and reinforce the didactic and skills laboratory components of their education by performing basic and advanced life support assessments and skills on a variety of patient presentations and complaints in the clinical setting. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and require-

ments set forth by the Alabama Department of Public Health.

EMP 202 PARAMEDIC CLINICAL COMPETENCIES II

(9P3)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s), approved for clinical studies, EMS 113, and CPR verification.

This course is directed toward the application of knowledge and skills developed in didactic and skills laboratory experiences to the clinical setting. Theory and skills are applied to a variety of medical situations across the life span of the patient, with a focus on communication with and management of cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 203 CARDIOVASCULAR PATIENT MANAGEMENT

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program, EMP-199 and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific cardiovascular conditions. Content areas include: assessment of the cardiovascular patient, pathophysiology of cardiovascular disease and techniques of management including appropriate pharmacologic agents and electrical therapy. Upon course completion, students will have demonstrated competency in those respective components of the National Standard Curriculum for the EMT-Paramedic and requirements set forth by the Alabama Department of Public Health.

EMP 204 TRANSITION TO PARAMEDIC PRACTICE

(2T, 2E)

3 credits

PREREQUISITE: Admission to the EMT-Paramedic Program and Permission of instructor.

COREQUISITE: Approved anatomy and physiology course(s).

This course is designed to meet additional state and local educational requirements for paramedic practice. Content may include: prehospital protocols, transfer medications, topics in critical care and transport, systems presentation, and/or national standard certification courses as dictated by local needs or state requirement. Upon course completion, students should have met all ancillary educational requirements set forth by the Alabama Department of Public Health and local employers.

Course Descriptions

EMP 205 PARAMEDIC TERMINAL COMPETENCIES (1T, 2E)

2 credits

PREREQUISITE: Admission to the EMT-Paramedic Program, approved anatomy and physiology course(s) and Permission of instructor.

This course is designed to review the National Standard Curriculum for the EMT-Paramedic and to assist students in preparation for the paramedic licensure examination. Emphasis is placed on validation of knowledge and skills through didactic review, skills lab performance, computer simulation and practice testing. Upon course completion, students should be sufficiently prepared to sit for the paramedic licensure examination.

EMP 206 PARAMEDIC FIELD PRECEPTORSHIP (1T, 15P3)

6 credits

PREREQUISITE: Admission to the EMT-Paramedic Program, approved anatomy and physiology course(s), approved for clinical studies, Permission of instructor, EMS 113, and CPR verification.

This course provides field experiences in the prehospital setting with advanced life support EMS units. Under the direct supervision of a field preceptor, students synthesize cognitive knowledge and skills developed in the skills laboratory and hospital clinical to provide safe and effective patient care in the prehospital environment. Upon course completion, students should have refined and validated their patient care practices to provide safe and effective patient care over a broad spectrum of patient situations and complaints.

EMP 207 PARAMEDIC TEAM LEADER PRECEPTORSHIP (3P3)

1 credit

PREREQUISITE: Admission to the EMT-Paramedic Program, approved anatomy and physiology course(s), approved for clinical studies, Permission of instructor, EMS 113, and CPR verification.

This course is designed to evaluate students' ability to integrate didactic, psychomotor skills, clinical, and field internship instruction to serve as a competent entry-level paramedic. This final evaluative (rather than instructional) course focuses on students' professional attributes and integrative competence in clinical decision-making and team leadership in the prehospital setting. Upon course completion, students should have demonstrated adequate knowledge and skills, professional attitudes and attributes, clinical decision-making and team leadership abilities to effectively function as a competent entry-level paramedic.

EMERGENCY MEDICAL SERVICES (EMS)

EMS 100 CARDIOPULMONARY RESUSCITATION I (1T)

1 credit

PREREQUISITE: As required by program.

This course provides students with concepts as related to areas of basic life support to include coronary artery disease, prudent heart living, symptoms of heart attack, adult one-and-two rescuer CPR, first aid for choking, pediatric basic life support, airway adjuncts, EMS system entry access, automated external defibrillation (AED), and special situations for CPR. Upon course completion, students should be able to identify situations requiring action related

to heart or breathing conditions and effectively implement appropriate management for each condition. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 101 CARDIOPULMONARY RESUSCITATION II (1T)

1 credit

PREREQUISITE: EMS 100 and/or as required by program.

This course provides students with a review of concepts learned in EMS-100. In addition, the course provides the student with theory and application of airway adjuncts as utilized with airway obstruction and maintenance as well as respiratory and cardiac arrest. Assessment and management of acute ischemic stroke will also be included. Upon course completion, students should be able to identify situations requiring action related to heart or breathing conditions and effectively implement appropriate management for these conditions. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 102 MEDICO-LEGAL ASPECTS OF EMERGENCY CARE (1T)

1 credit

PREREQUISITE: As required by program.

This course is designed for students planning to enter a health sciences profession. The course introduces students to classification of laws, the Alabama Medical Practice Act, the Alabama Good Samaritan Act, state legislation affecting health related professionals, the concept of "standard of care", medical liability, and areas of potential medical liability and protection. Upon course completion, students should have an understanding of laws relating to patient care, areas of potential liability, and medical liability protection for health professionals.

EMS 103 FIRST AID (1T)

1 credit

PREREQUISITE: Current training in CPR and/or as required by program.

This course introduces students to initial first aid care. Topics include scene safety, universal precautions, activation of the EMS system, assessment, airway/breathing/circulation, shock/injuries/bleeding, medical emergencies, and altered level of consciousness. Upon course completion, students should have knowledge to manage various emergencies requiring first aid techniques.

EMS 104 FIRST AID FOR STUDENTS OF HEALTH RELATED PROFESSIONS (1T)

1 credit

PREREQUISITE: Current training in CPR and/or as required by program.

This course is designed for students who plan to enter a health related profession and provides educational concepts related to first aid for various health disciplines. The course includes instruction in the emergency administration of oxygen, use of airway adjuncts, medication administration techniques, equipment for mechanical breathing, suctioning techniques, and automated external defibrillation (AED). Upon course completion, students should have the ability to recognize emergency situations requiring immediate action and appropriately manage these situations.

EMS 105 FIRST RESPONDER (3T)

3 credits

PREREQUISITE: As required by program.

This course provides theory in emergency procedures as

contained in the current National Standard Training Curriculum (NSTC) for the First Responder. The course is an introduction to the emergency medical services system and provides fundamentals for students to improve the quality of emergency care provided as the first person to an emergency scene until emergency medical services arrive. Completion of specific student competencies, as outlined in the current NSTC for the First Responder, are required for successful course completion.

EMS 106 MEDICAL TERMINOLOGY FOR HEALTH PROFESSIONS (2T) 2 credits
PREREQUISITE: As required by program.

This course provides students with a survey of words, terms, and descriptions commonly used in health related professions. The course includes spelling, pronunciation, and meaning of prefixes, suffixes, roots, and terms. Students may have the opportunity to utilize computer assisted instruction for learning various medical terms. Upon course completion, students should have the knowledge to associate a variety of medical terms with their meaning and utilize medical terms to effectively communicate with other health professionals.

EMS 107 EMERGENCY VEHICLE OPERATOR AMBULANCE (1T) 1 credit
PREREQUISITE: Must present a valid driver's license as required by program.

The Emergency Vehicle Operator Course - Ambulance provides the student with training as contained in the current National Standard Training Curriculum (NSTC) for the Emergency Vehicle Operator Course (EVOC) Ambulance. The course provides the knowledge and skill practice necessary for individuals to learn how to safely operate all types of ambulances. Topics include introduction to the NSTC for ambulance operators; legal aspects of ambulance operation; communication and reporting; roles and responsibilities; ambulance types and operation; ambulance inspection, maintenance, and repair; navigation and route planning; basic maneuvers and normal operating situations; operations in emergency mode and unusual situations, special considerations in safety; and the run. Completion of specific student competencies, utilizing NSTC guidelines, are required for successful completion of this course. NOTE: To qualify for licensure status as an ambulance driver in the State of Alabama, students must successfully complete this course and meet additional requirements as required by the Alabama Department of Public Health.

EMS 108 DIRECTED STUDIES IN EMS I (1T) 1 credit
PREREQUISITE: As required by program.

This course offers independent study or computer assisted instruction under faculty supervision and/or theory in an EMS subject relevant to the student's interest and need. Specific cognitive competencies required by the student are defined in writing at the first class period.

EMS 109 DIRECTED STUDIES IN EMS – II (1T) 1 credit
PREREQUISITE: As required by program.

This course offers independent study or computer assisted instruction under faculty supervision and/or theory in an EMS subject relevant to the student's interest and need. Specific cognitive competencies required by the student are

defined in writing at the first class period.

EMS 110 DIRECTED STUDIES IN EMS – III (1T) 1 credit
PREREQUISITE: As required by program.

This course offers independent study or computer assisted instruction under faculty supervision and/or theory in an EMS subject relevant to the student's interest and need. Specific cognitive competencies required by the student are defined in writing at the first class period.

EMS 111 DIRECTED STUDIES IN EMS – IV (1T) 1 credit
PREREQUISITE: As required by program.

This course offers independent study or computer assisted instruction under faculty supervision and/or theory in an EMS subject relevant to the student's interest and need. Specific cognitive competencies required by the student are defined in writing at the first class period.

EMS 112 DIRECTED STUDIES IN EMS – V (1T) 1 credit
PREREQUISITE: As required by program.

This course offers independent study or computer assisted instruction under faculty supervision and/or theory in an EMS subject relevant to the student's interest and need. Specific cognitive competencies required by the student are defined in writing at the first class period.

EMS 114 INFECTION CONTROL REFRESHER (1T) 1 credit
PREREQUISITE: EMS 113 and/or as required by program.

This course is designed as a refresher for students in health related fields of study who have completed material contained in EMS 113. The course provides students with updated information as related to managing potential bloodborne and airborne pathogens. The course is taught following current guidelines set forth by the Occupational Safety and Health Administration (OSHA). Upon course completion, students should be able to participate in the clinical setting, identify potential sources of bloodborne and airborne pathogens, and use appropriate universal precautions.

EMS 115 SPECIAL SKILLS FOR HEALTH RELATED PROFESSIONS (1T) 1 credit
PREREQUISITE: Students enrolled in a health related professions program and/or as required by program.

This course is designed for students enrolled in a health related professions program. The course provides students with concepts related to peripheral venous anatomy and venipuncture techniques. Upon course completion, students should be able to identify veins of the extremities and perform basic venipuncture techniques of the upper extremities.

EMS 116 EMS BASIC THEORY AND LAB (6T,6M) 9 credits

This course is required to apply for certification as an EMT basic. This course provides students with insights into the theory and application of concepts related to the profession of emergency medical services. Specific topics include: EMS preparatory, airway maintenance, patient assessment, treating trauma patients, various medical procedures, treating infants and children, and various EMS operations. This course is based on the Emergency Medical Technician-Basic National Standard Curriculum.

Course Descriptions

- EMS 117 EMS BASIC CLINICAL COMPETENCIES (3C) 1 credit**
This course is required to apply for certification as an EMT basic. This course provides students with clinical education experiences to enhance knowledge and skills learned in the EMS 116, EMS Basic Theory and Lab. This course helps students prepare for the National Registry Exam.
- EMS 120 VEHICLE EXTRICATION (2T) 2 credits**
PREREQUISITE: As required by program.
This course provides students with theory in the development of concepts related to the removal of persons from damaged vehicles. Topics include gaining access, stabilization, packaging, patient removal, and basic hazardous situations. Upon course completion, students should be able to effectively extricate a person from a wrecked vehicle.
- EMS 121 VEHICLE RESCUE (2T, 3S) 3 credits**
PREREQUISITE: EMS 120 and/or as required by program.
This course is a continuation of EMS 120 and provides students with concepts and skills related to patient management and hazards encountered during vehicle rescue operations. Topics include mechanisms of trauma, patient injuries, assessment, management, extrication tools; and potential hazards to include faulty air bags, loaded hydraulic bumper systems, and patient restraints. Upon course completion, students should be able to identify different areas of vehicle damage and associate this damage with specific patient injuries; and keep the scene safe by recognizing potential hazards encountered during the rescue of patients from vehicles.
- EMS 122 STRUCTURAL EXTRICATION (2T) 2 credits**
PREREQUISITE: As required by program.
This course provides students with theory in the development of concepts related to extrication of persons from a variety of structures from one to three stories. Topics include packaging, removal of patients trapped in buildings, and hazards of structural extrication. Upon course completion, students should be able to identify hazards and have the knowledge to package and remove patients from a three-story building.
- EMS 123 STRUCTURAL RESCUE (2T, 3S) 3 credits**
PREREQUISITE: EMS 122 and/or as required by program.
This course is a continuation of EMS 122 and provides students with concepts and skills related to structural rescue in multilevel buildings. Topics include structural materials, structural damage, commercial and residential construction, toxic combustibles, rescuer safety, self-contained breathing apparatus, and types of rescue tools. Upon course completion, students should have an understanding of how buildings are constructed, different types of structural rescue, and the safest way to approach the rescue of persons trapped in a structure.
- EMS 124 SEARCH & WILDERNESS RESCUE (3T) 3 credits**
PREREQUISITE: As required by program.
This course provides students with concepts related to searching for persons in a remote or isolated area. Topics include organization of a rescue; communications and incident command; missing person history, questionnaire, and checklist; planning to include finances, personnel, technical specialists, topographic maps, medical units, supplies, documentation, and search and rescue logs. Upon course completion, students should be familiar with how to plan and conduct a search and wilderness rescue.
- EMS 125 HIGH ANGLE RESCUE – I (2T) 2 credits**
PREREQUISITE: As required by program.
This course provides students with theory in the introduction to high angle rescue techniques. Topics include the high angle environment; equipment and protection, care and use of rope and related equipment; knots, rappelling, and ascending techniques; and introduction to rescue techniques. Upon course completion, students should have an understanding in the basic techniques of high angle rescue.
- EMS 126 HIGH ANGLE RESCUE – II (2T) 2 credits**
PREREQUISITE: EMS 125 and/or as required by program.
This course is a continuation and review of EMS 125 and provides students with theory in rescue techniques utilized in rope rescue. Topics include one person rescue techniques, slope evacuation, high angle lowering, hauling systems, high lines, and evacuation operations. Upon course completion, students should have an understanding of how to approach a high angle rescue, utilizing various rigging techniques.
- EMS 127 HIGH ANGLE RESCUE – III (2T, 3S) 3 credits**
PREREQUISITE: EMS 126 and/or as required by program.
This course is a continuation and review of EMS 126 and provides students with demonstration and hands on practice of high angle rescue. The course incorporates all material contained in EMS 125 and EMS 126 and allows students the opportunity to utilize their knowledge to perform high angle rescue. Upon course completion, students should be familiar with how to plan and conduct a safe high angle rescue by participation in a simulated field exercise in high angle rescue.
- EMS 128 CAVE RESCUE – I (2T) 2 credits**
PREREQUISITE: EMS 125 and/or as required by program.
This course provides students with theory and demonstration in planning and conducting a cave rescue. Topics include organization and incident command; assessment and management of unstable environments; cave search teams; medical personnel; and rigging. Upon course completion, students should be familiar with the basic concepts and potential dangers of cave rescue.
- EMS 129 CAVE RESCUE II (2T, 3S) 3 credits**
PREREQUISITE: EMS 128 and/or as required by program.
This course is a continuation and review of EMS 128 and provides students with demonstration and hands on practice of cave rescue. Topics include cave types and dangers; lighting; confined space and water hazards; and conducting a rescue. Upon course completion, students should be familiar with how to plan and conduct a safe cave rescue by participation in a simulated field exercise in cave rescue.
- EMS 130 INDUSTRIAL EXTRICATION (2T) 2 credits**
PREREQUISITE: As required by program.
This course provides students with concepts related to extrication of persons from a variety of industrial accidents.

Topics include confined space, artificial anchors, accident cause, toxic materials, air content, and mechanics of industrial equipment. Upon course completion, students should have a basic understanding of the types of extrication techniques and hazards involved with industrial extrication.

EMS 131 INDUSTRIAL RESCUE (2T, 3S) 3 credits
PREREQUISITE: EMS 130 and/or as required by program.

This course is a continuation and review of EMS 130 and provides students with demonstration and hands on practice of industrial rescue. Topics include local industry types and equipment, approach to a successful rescue, dangers with compression injuries, and overcoming hazards. Upon course completion, students should be familiar with how to plan and conduct a safe industrial rescue by participation in a simulated field exercise in industrial rescue.

EMS 132 AGRICULTURAL EXTRICATION (2T) 2 credits
PREREQUISITE: As required by program.

This course provides students with concepts related to extrication of persons from a variety of agricultural accidents. Topics include confined space, accident cause, toxic materials, and types of agricultural equipment. Upon course completion, students should have a basic understanding of the types of extrication techniques and hazards involved with agricultural extrication.

EMS 133 AGRICULTURAL RESCUE (2T, 3S) 3 credits
PREREQUISITE: EMS 132 and/or as required by program.

This course is a continuation and review of EMS 132 and provides students with demonstration and hands on practice of agricultural rescue. Topics include local agricultural equipment, components and operation; approach to a successful rescue; dangers with compression injuries; federal laws related to the restricted use of pesticides; and overcoming hazards. Upon course completion, students should be familiar with how to plan and conduct a safe agricultural rescue by participation in a simulated field exercise in agricultural rescue.

EMS 134 WATER EXTRICATION (2T) 2 credits
PREREQUISITE: As required by program.

This course provides students with concepts related to extrication of persons from water accidents where they are located on the water's surface. Topics include pathophysiology of near drowning, affects from extreme temperatures, and basic assessment and management techniques of water extrication. Upon course completion, students should have a basic understanding of how to remove persons from the water's surface from accidents occurring in the water.

EMS 135 SURFACE WATER RESCUE (2T, 3S) 3 credits
PREREQUISITE: EMS 134 and/or as required by program.

This course is a continuation and review of EMS 134 and provides students with demonstration and hands on practice of surface water rescue. Topics include water rescue equipment types and use, rescuer safety, resources, the approach to a successful rescue, and overcoming hazards. Upon course completion, students should be familiar with how to plan and conduct a safe surface water rescue by participation in a simulated field exercise in a surface water rescue.

EMS 144 EMT BASIC SPECIALIZED EXPERIENCES (3P3) 1 credit

PREREQUISITE: Admission to the EMT-Basic level of training or current Alabama licensure as an EMT-Basic.

This course provides students with clinical training in specialized areas such as E-911 dispatch, physician offices, and/or mental health centers to enhance knowledge and skills learned in the EMT-Basic training. Specific skills objectives are evaluated, including patient assessment and management, and students are required to complete patient care summaries and other written work. This course is optional for completing requirements for the EMT-Basic level of training.

EMS 145 EMERGENCY DEPARTMENT PRECEPTORSHIP (1T, 3P3) 2 credits

PREREQUISITE: Admission to the EMT-Basic level of training or current Alabama licensure as an EMT-Basic.

COREQUISITE: EMS 113 and CPR verification.

This course provides students with clinical experiences in the emergency department to enhance knowledge and skills learned in the EMT-Basic training. Specific skills objectives, including patient assessment and management, are evaluated and students are required to complete patient care summaries and other written work. This course is optional for completing requirements for the EMT-Basic level of training.

EMS 150 EMT-BASIC REFRESHER (2T) 2 credits

PREREQUISITE: Completion of a NSTC course for EMT-Basic and/or as required by program.

This course provides students with theory in review of the current National Standard Training Curriculum (NSTC) for the EMT-Basic. It also serves as a transition or bridge course when a new national curriculum is adopted. This course contains specific content areas as defined by the NSTC. Students are required to complete specific competencies, as outlined by the NSTC, for successful course completion.

EMS 151 BASIC TRAUMA MANAGEMENT (1T) 1 credit

PREREQUISITE: Completion of a NSTC course for EMT-Basic and/or as required by program.

This course provides students with theory in techniques of basic trauma management. Content areas include general assessment, injuries to the head-neck-face-spine-thorax-abdomen-pelvis-genitalia-extremities. The course is taught in accordance with national standards and requires students to complete specific competencies for successful completion.

EMS 152 DEFIBRILLATION (1T) 1 credit

PREREQUISITE: Current Alabama licensure as a EMT-Basic and/or as required by program.

This course provides students with theory as contained in the National Standard Training Curriculum (NSTC) for EMT-Defibrillation. Content areas include basic cardiac anatomy, electrocardiogram principles, rhythm recognition, monitoring techniques, and defibrillation procedures. Upon course completion, students should have an understanding of when and how to perform cardiac defibrillation.

Course Descriptions

- EMS 153 EMS DISPATCHER (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with theory as contained in the National Training Curriculum (NSTC) for EMS Dispatcher. This course is designed to prepare EMS dispatcher personnel to operate a telecommunication base station for the purpose of receiving requests for emergency medical services and allocating community resources in response to such requests. Upon course completion, students should have an understanding of emergency medical services dispatch procedures and be able to effectively receive a call and dispatch appropriate personnel, utilizing a scenario in a simulated situation.
- EMS 154 BASIC PEDIATRIC EMS PROVIDER (1T) 1 credit**
PREREQUISITE: EMT-Basic and/or as required by program.
 This course provides students with theory in basic emergency care of the pediatric patient. Content areas include the child and family; general pediatric assessment; pediatric respiratory emergencies; pediatric CPR; primary and secondary trauma management; pediatric orthopedic injuries; burn management; child abuse; pediatric medical, neurological, and toxicological emergencies; the infant; sleep apnea and sudden infant death syndrome; and crisis/stress management. Upon course completion, students should be able to provide basic emergency care to infants and children.
- EMS 170 RADIATION BIOLOGY & SAFETY (1T) 1 credit**
PREREQUISITE: As required by program.
 This course provides students with concepts in basic radiation biology. Topics include radiation biology and genetics, dosimetry, radiation safety, and instruments to measure radiation exposure. Upon course completion, students should have an understanding of radiation and the effects of radiation exposure to the human body.
- EMS 171 HAZARDOUS MATERIALS AWARENESS AND OPERATIONS (2T) 2 credits**
PREREQUISITE: As required by program.
 This course provides students with theory in hazardous materials incident awareness and initial operational response. Topics include hazardous materials terms and definitions; recognition of hazardous materials; incident risks and risk assessment; use of protective equipment; basic control, containment, and/or confinement; basic decontamination procedures; and hazardous materials incident standard operating procedures. Upon course completion, students should have basic understanding of hazardous materials incidents and the initial response required by the first personnel responding to such an incident.
- EMS 172 HAZARDOUS MATERIALS TECHNICIAN – I (2T) 2 credits**
PREREQUISITE: EMS 171
 This course provides students with theory in hazardous materials incident response and is a continuation of EMS 171. Topics include an appropriate emergency response plan; classification and verification of known and unknown materials through use of survey instruments and equipment; utilization of specialized chemical protective equipment, hazard and risk assessment techniques; advanced control, containment, and/or confinement; implementation of decontamination procedures; and understanding termination procedures. Upon course completion, students should be able to effectively respond to and manage a hazardous materials incident.
- EMS 173 HAZARDOUS MATERIALS TECHNICIAN – II (2T) 2 credits**
PREREQUISITE: EMS 172
 This course provides students with theory in hazardous materials incident response specialization and is a continuation of EMS 172. Topics include specific knowledge of various hazardous materials; federal, state, and local requirements regarding the development of a site safety and control plan; and chemical, radiological, and toxicological terminology and behavior. Upon course completion, students should be familiar with requirements for managing a hazardous materials incident.
- EMS 174 INCIDENT COMMAND AND EMERGENCY RESPONSE (1T, 3S) 2 credits**
PREREQUISITE: EMS 173
 This course provides students with theory, demonstration, and practical application in incident command. Topics include incident analysis, command sequence, sizing up the situation, action planning, establishing command, and organization. Upon course completion, students should be able to plan, direct, and control the scene of a hazardous material incident.
- EMS 175 RADIOLOGICAL RESPONSE (2T) 2 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to radiation. Topics include radiation physics, radiation biology, radiological monitoring, and radiological response procedures. Upon course completion, students should have an understanding of how radiation exposure affects the human body and know procedures related to radiological exposure response.
- EMS 190 EMT-INTERMEDIATE REFRESHER (2T) 2 credits**
PREREQUISITE: Completion of a NSTC course for the EMT-Intermediate.
 This course provides students with a review of material contained in the National Standard Training Curriculum (NSTC) for the EMT-Intermediate. It also serves as a transition or bridge course when a new national curriculum is adopted. This course contains specific content areas as defined by the NSTC and the Alabama Department of Public Health. Students are required to complete specific competencies according to the NSTC for successful course completion.
- EMS 208 DIVE RESCUE BASIC SCUBA (2T) 2 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts in basic watermanship. Topics include surface rescue, cardiopulmonary resuscitation, basic scuba techniques, and an orientation to public safety diving. Upon course completion, students should have an understanding of basic watermanship. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 209 DIVE RESCUE – ADVANCED SCUBA (2T) 2 credits
PREREQUISITE: EMS 208 and/or as required by program.
 This course provides students with concepts in advanced scuba techniques. Topics include natural and compass navigation, night diving, search and light salvage diving, deep diving, diving in a hazardous environment, and preservation of recovered evidence. Upon course completion, students should have an understanding of dive navigation and recovery. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 210 DIVE RESCUE (2T) 2 credits
PREREQUISITE: EMS 209 and/or as required by program.
 This course provides students with concepts in the rescue of a diver. Topics include dive first aid, response and rescue of the panicked diver, unconscious diver, rescue breathing in the water, operational limited visibility diving, and use of search patterns. Upon course completion, students should have an understanding of the effective approach in the rescue of a diver. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 211 DIVE RESCUE MASTER SCUBA (2T 3S) 3 credits
PREREQUISITE: EMS 210 and/or as required by program.
 This course provides students with theory and practical application in dive rescue. Topics include scuba equipment care and maintenance; search and salvage; night diving; deep diving; research diving; and special response team diving. Upon course completion, students should be able to perform basic procedures associated with dive rescue. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 212 DIVE RESCUE DIVEMASTER (2T 3S) 3 credits
PREREQUISITE: EMS 211 and/or as required by program.
 This course provides students with theory and practical application advanced watermanship. Topics include advanced scuba techniques, diver training procedures, dive physics and physiology, dive site management procedures, evidence preservation, interviewing witnesses, and designing search maps. Upon course completion, students should be able to design a search map and correctly locate and manage a designated dive site. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 213 DIVER RESCUE ASSISTANT INSTRUCTOR (2T, 3S) 3 credits
PREREQUISITE: EMS 212 and/or as required by program.
 This course provides students with theory, demonstration and practical application in dive education. Topics include educational principles, techniques of classroom instruction, techniques of confined water instruction, evaluation in the open water setting, and standards and practices of the diving industry. Upon course completion, students should have the knowledge and skills to become an assistant dive rescue instructor. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 214 UNDERWATER INVESTIGATOR (1T) 1 credit
PREREQUISITE: EMS 210 and/or as required by program.
 This course provides students with concepts related to underwater investigation. Topics include methods and techniques of search; special equipment needs; evidence handling; documentation; and preparation for presentation of evidence. Upon course completion, students should be able to prepare and present evidence of an underwater investigation. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 215 ENRICHED AIR DIVER (1T, 3S) 2 credits
PREREQUISITE: EMS 209 and/or as required by program.
 This course provides students with theory, demonstration, and practical application in the use of enriched air. Topics include special diving circumstances with enriched air, principles of gases, calculation of equivalent air depths (EADs), determining oxygen toxicity exposure, principles of mixing gases, oxygen analyzer techniques, and special procedures used in diving enriched air nitrox (EAN) in the public safety diving environment. Upon course completion, students should be familiar with the use and hazards of enriched air diving. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 216 HAZARDOUS ENVIRONMENT DIVING (1T) 1 credit
PREREQUISITE: EMS 210 and/or as required by program.
 This course provides students with concepts related to diving in hazardous environments. Topics include special equipment needs, hazard analysis, techniques of decontamination, and procedures for determining equipment for special hazards. Upon course completion, students should be familiar with the special needs involved in hazardous environment diving. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 217 DIVE RESCUE INSTRUCTOR (2T, 2E) 3 credits
PREREQUISITE: EMS 212, 213 and/or as required by program.
 This course provides students with theory, demonstration, and practical application in instructional techniques for diving. Topics include classroom presentation techniques, confined water instruction techniques, open water instruction techniques, open water evaluation techniques, and policies, standards, and procedures of certifying agencies. Upon course completion, students should be able to effectively present a variety of topics related to diving and demonstrate dive proficiency. All dive curricula are taught in accordance with the certifying agency. Note: Special equipment and certification/activity fee required.

EMS 218 SUPERVISED STUDIES IN EMS – I (1T) 1 credit
PREREQUISITE: As required by program.
 This course offers various topics of interest and need in emergency medical services. The course is conducted and completed under faculty supervision and includes required student cognitive competencies. Upon course completion, students should have a greater understanding of their assigned course topic.

Course Descriptions

COURSE DESCRIPTIONS

- EMS 219 SUPERVISED STUDIES IN EMS – II (1T) 1 credit**
PREREQUISITE: As required by program.
 This course offers various topics of interest and need in emergency medical services. The course is conducted and completed under faculty supervision and includes required student cognitive competencies. Upon course completion, students should have a greater understanding of their assigned course topic.
- EMS 220 DIVER MEDICAL TECHNICIAN – I (2T) 2 credits**
PREREQUISITE: Successful completion of EMT-Paramedic and/or as required by program.
 This course provides students with concepts related to diving history. Topics include the history of diving and hyperbaric medicine, introduction to the offshore environment, and hyperbaric chambers. Upon course completion, students should have an understanding of dive history and hyperbaric medicine.
- EMS 230 MANAGEMENT IN EMERGENCY MEDICAL SERVICES (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts in the design and management of an emergency medical services organizational unit. Topics include discussion into the issues and challenges surrounding EMS, EMS systems design, resources, EMS councils, problem solving, supervision, medical control, legal issues, financial management, and EMS training. Upon course completion, students should have an understanding of management issues as related to emergency medical services.
- EMS 231 EMS LEADERSHIP TECHNIQUES (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to emergency medical services leadership. Topics include values and personal styles in leadership, conflict management, work motivation, group dynamics, and organizational behavior. Upon course completion, students should be able to demonstrate appropriate EMS leadership techniques.
- EMS 232 COMPUTERS IN EMS (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts as related to the use of computers in emergency medical services. Topics include microcomputers as used in EMS, software applications to include word processing, spread sheets, database systems, electronic filing systems, general accounting procedures, professional development, and patient documentation. Upon course completion, students should have an understanding of how computers are utilized in emergency medical services.
- EMS 233 MEDIA AND EMS MARKETING (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to EMS marketing. Topics include the communication cycle, nonverbal communication procedures, preparing oral presentations, public speaking skills, communications during crisis situations, marketing EMS, and various forms of media related to EMS. Upon course completion, students should be able to describe ways marketing and media are used for emergency medical services.
- EMS 234 DECISION MAKING AND PROBLEM SOLVING IN EMS (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to problem solving and decision making. Topics include decision making in the emergency and non-emergency setting, group dynamics and the group thinking phenomenon. Upon course completion, students should be able to begin to use critical thinking skills to solve problems and make appropriate decisions.
- EMS 235 EMS FINANCE AND COST ACCOUNTING (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to emergency medical services finance. Topics include the budget process, creative financing strategies, accounting procedures, and basic grantsmanship. Upon course completion, students should be able to develop a budget, utilize accounting procedures, and present creative financing strategies.
- EMS 236 HUMAN RESOURCE MANAGEMENT IN EMS (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts as related to human resource management in emergency medical services. Topics include supervision, organization, human relations, grievances, training, and labor law. Upon course completion, students should be able to describe effective ways to deal with labor disputes, grievances, and human resource training.
- EMS 237 LEGAL REQUIREMENTS FOR EMS (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to business and corporate law. Topics include tort proceedings in emergency medical services; implications of a lawsuit; types of professional liability coverage; and federal, state, and local reporting/compliance requirements for emergency medical services. Upon course completion, students should have an understanding of the laws and requirements affecting EMS.
- EMS 238 QUALITY ASSURANCE IN EMS (3T) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with concepts related to ensuring quality patient care in emergency medical services. Topics include fundamental principles of EMS medical control and accountability, performance, and evaluation. Upon completion, students should have a knowledge of how an effective quality assurance plan in emergency medical services is implemented.
- EMS 239 PRECEPTORSHIP IN EMS MANAGEMENT (9P3) 3 credits**
PREREQUISITE: As required by program.
 This course provides students with field experiences in emergency medical services management. Students are assigned to an EMS service and work under the direct supervision of the chief operating officer, completing various assigned administrative tasks throughout the preceptorship. Upon course completion, students should have an understanding of the various areas and tasks involved in

managing an emergency medical services agency.

EMS 264 PARAMEDIC REGISTRY REVIEW (2T, 2E) 3 credits
PREREQUISITE: Completion of an NSTC course for the Paramedic and/or as required by program.

This course provides students with theory and practical application in preparation for the National Registry Paramedic examination. The course includes a review of knowledge and skill objectives as contained in the National Standard Training Curriculum for the Paramedic. Students successfully completing this course are required to attain specific cognitive, psychomotor, and affective domain competencies.

EMS 265 PARAMEDIC REFRESHER (3T) 3 credits
PREREQUISITE: Completion of an NSTC course for the Paramedic and/or as required by program.

This course provides students with a review of material contained in the current National Standard Training Curriculum (NSTC) for the Paramedic. It also serves as a transition or bridge course when a new national curriculum is adopted. This course contains specific content areas as defined by the NSTC. Students are required to complete specific competencies for successful course completion.

EMS 266 ADVANCED CV LIFE SUPPORT PROVIDER (1T) 1 credit
PREREQUISITE: As required by program.

The Advanced Cardiovascular Life Support Provider Course provides students with concepts related to advanced cardiovascular life support. Content areas include acute myocardial infarction, stroke, cardiovascular pharmacology, electrophysiology, various rhythm disturbances, and techniques of management of cardiovascular emergencies. The course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 267 BASIC TRAUMA LIFE SUPPORT PROVIDER (1T) 1 credit
PREREQUISITE: LPN, R.N., Intermediate EMT, Paramedic, and/or as required by program.

This course provides students with theory and demonstration in advanced trauma care and management. Content areas include mechanism of trauma, trauma assessment, airway-breathing-circulation management, trauma to various portions of the body, multiple system trauma, and load-and-go situations. The course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 269 PEDIATRIC MEDICAL LIFE SUPPORT PROVIDER (1T) 1 credit
PREREQUISITE: LPN, RN, Intermediate EMT, Paramedic, and/or as required by program.

This course provides students with theory and simulated case studies in pediatric care. Content areas include recognition of pediatric pre-arrest conditions; shock; basic life support; oxygenation and airway control; newborn resuscitation; essentials in pediatric resuscitation; dysrhythmia recognition and management; vascular access; and use of

medications. This course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 270 ADVANCED NEONATAL LIFE SUPPORT PROVIDER (1T) 1 credit
PREREQUISITE: RN, Paramedic, and/or as required by program.

This course provides students with theory and demonstration in advanced neonatal care. Content areas include physiology of a newborn; causes of arrest in the neonate; initial steps in the resuscitation to include thermal management, positioning, suctioning, and tactile stimulation; use of resuscitation equipment and procedures for resuscitation; chest compressions and special considerations; anatomy of the neonates airway and endotracheal intubation; and resuscitation medications. The course is taught in accordance with national standards and requires specific student competencies for successful course completion.

EMS 274 PRE HOSPITAL 12 LEAD EKG - (1T) 1 credit
PREREQUISITE: As required by program.

This course is designed for EMT-Intermediates and Paramedics to introduce them to the importance of decreasing "door to treatment" time for acute myocardial infarction patients by transmitting a 12-Lead EKG before arrival at a medical facility. Topics include the prehospital evaluation program; prehospital cardiac evaluation assessment; components of 12-Lead recognition in an acute myocardial infarction; acquiring and transmitting the 12-Lead EKG; chest pain protocols; and practice sessions in 12-Lead EKG recognition with suspected myocardial infarction. Completion of student competencies is required for successful course completion.

EMS 277 PEDIATRIC TRAUMA MANAGEMENT PROVIDER (1T) 1 credit
PREREQUISITE: EMS 267 and/or as required by program.

This course provides students with theory and demonstration in advanced trauma management for the pediatric patient. Content areas include mechanism of injury, trauma assessment and management, airway-breathing-circulation management, and management of the pediatric patient with pre-existing medical conditions. The course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 280 BASIC LIFE SUPPORT INSTRUCTOR (1T) 1 credit
PREREQUISITE: Successful completion, within the past 12 months, of all areas of basic life support training (CPR).

This course provides students with concepts as related to areas of basic life support instruction. Topics include history, concepts, and systems of emergency cardiac care; cardiopulmonary physiology, dysfunction, and actions for survival; introduction to the performance of CPR; foreign body airway obstruction management; pediatric basic life support; special techniques/resuscitation situations, pitfalls, and complications; teaching and learning in basic life support; teaching strategies; and basic provider course organizations. Students will also successfully participate in prac-

Course Descriptions

tice teaching of a cardiopulmonary resuscitation (CPR) class prior to course completion. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 281 ADVANCED CV LIFE SUPPORT

INSTRUCTOR (1T)

1 credit

PREREQUISITE: EMS 266 and/or as required by program. This course provides the student with theory and practice in the techniques of teaching advanced cardiovascular life support (ACLS). The course is taught in accordance with national standards. Students will also successfully participate in practice teaching of an ACLS provider course prior to course completion. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 282 BASIC TRAUMA LIFE SUPPORT

INSTRUCTOR (1T)

1 credit

PREREQUISITE: EMS 267 and/or as required by program. This course provides students with theory and practice in the techniques of teaching Basic Trauma Life Support (BTLS). The course is taught to provide instructor training in trauma care and management in accordance with national standards. Students will also successfully participate in practice teaching of a BTLS provider course prior to course completion. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 284 PEDIATRIC MEDICAL LIFE SUPPORT

INSTRUCTOR (1T)

1 credit

PREREQUISITE: EMS 269 and/or as required by program. This course provides students theory and practice in teaching pediatric medical life support. Topics include recognition of pediatric pre-arrest conditions; shock; basic life support; oxygenation and airway control; newborn resuscitation; essentials in pediatric resuscitation; dysrhythmia recognition and management; vascular access; pediatric trauma; and use of medications. This course is taught in accordance with national standards. Students will also successfully participate in practice teaching of a pediatric medical life support provider course prior to course completion. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 285 ADVANCED NEONATAL LIFE SUPPORT

INSTRUCTOR (1T)

1 credit

PREREQUISITE: EMS 270 and/or as required by program. This course provides students with theory and practice in teaching advanced neonatal life support. Topics include physiology of a newborn; causes of arrest in the neonate; initial steps in the resuscitation to include thermal management, positioning, suctioning, and tactile stimulation; use of resuscitation equipment and procedures for resuscitation; chest compressions and special considerations; anatomy of the neonates airway and endotracheal intubation; and resuscitation medications. This course focuses on only the neonate and not pediatrics in general. This course is taught in accordance with national standards. Students will also successfully participate in practice teaching of a neonatal advanced life support provider course prior to course completion. Students successfully com-

pleting this course will receive appropriate documentation of course completion.

ENGLISH (ENG)

ENG 092 BASIC ENGLISH I (3T)

3 credits

This course is a review of basic writing skills and basic grammar. Emphasis is placed on the composing process of sentences and paragraphs in standard American written English. Students will demonstrate these skills chiefly through the writing of well-developed, multi-sentence paragraphs.

ENG 093 BASIC ENGLISH II (3T)

3 credits

PREREQUISITE: A grade of "C" or better in ENG 092 or satisfactory placement score This course is a review of composition skills and grammar. Emphasis is placed on coherence and the use of a variety of sentence structures in the composing process and on standard American written English usage. Students will demonstrate these skills chiefly through the writing of paragraph blocks and short essays.

ENG 101 ENGLISH COMPOSITION I (3T)

3 credits

PREREQUISITE: Grade of "C" or better in ENG 093 or satisfactory ACT, SAT, or placement score English Composition I provides instruction and practice in the writing of at least six (6) extended compositions and the development of analytical and critical reading skills and basic reference and documentation skills in the composition process. English Composition I may include instruction and practice in library usage.

ENG 102 ENGLISH COMPOSITION II (3T)

3 credits

PREREQUISITE: A grade of "C" or better in ENG 101 or equivalent English Composition II provides instruction and practice in the writing of six (6) formal, analytical essays, at least one of which is a research project using outside sources and/or references effectively and legally. Additionally, English Composition II provides instruction in the development of analytical and critical reading skills in the composition process. English Composition II may include instruction and practice in library usage.

ENG 130 TECHNICAL REPORT WRITING (3T)

3 credits

PREREQUISITE: A grade of "C" or better in ENG 101 or equivalent This course provides instruction in the production of technical and/or scientific reports. Emphasis is placed on research, objectivity, organization, composition, documentation, and presentation of the report. Students will demonstrate the ability to produce a written technical or scientific report by following the prescribed process and format.

ENG 251 AMERICAN LITERATURE I (3T)

3 credits

PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent This course is a survey of American literature from its inception to the middle of the nineteenth century. Emphasis is placed on representative works and writers of

this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 252 AMERICAN LITERATURE II

(3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of American literature from the middle of the nineteenth century to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written composition, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 261 ENGLISH LITERATURE I

(3T) 3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of English literature from the Anglo-Saxon period to the Romantic Age. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 262 ENGLISH LITERATURE II (3T)

3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a survey of English literature from the Romantic Age to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 271 WORLD LITERATURE I (3T)

3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a study of selected literary masterpieces from Homer to the Renaissance. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 272 WORLD LITERATURE II (3T)

3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a study of selected literary masterpieces from the Renaissance to the present. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 297 AFRICAN-AMERICAN LITERATURE (3T)

3 credits
PREREQUISITE: A grade of "C" or better in ENG 102 or equivalent

This course is a study of literature produced by representative African Americans from the eighteenth century to the present. The course emphasizes the diversity of themes and techniques found in these works and examines the historical, cultural, literary and philosophical forces that shaped these works and that are reflected in them. Students will demonstrate the ability to interpret the literature and to relate the works to their historical and literary contexts.

ENG 298 SPECIAL TOPICS IN LANGUAGE AND LITERATURE (1-2T)

1-2 credits
This course, which may be repeated for credit as long as the topics differ, permits a student to study with an instructor a topic in English language or in literature. Emphasis is placed on a narrowly focused topic in which the instructor has special expertise, knowledge, or interest. Students will demonstrate through a research paper and/or a literary critique an understanding of the topic.

ENG 299 DIRECTED STUDIES IN LANGUAGE AND LITERATURE (1-3T)

1-3 credits
This course, which may be repeated for credit as long as the topics differ, provides the student the opportunity to study an English language or literary topic chosen by the student in consultation with the instructor. Emphasis is placed on the student's investigating the topic and reporting the results of the investigation. The student will demonstrate knowledge of the topic through either a written or an oral presentation.

**ENGLISH AS A SECOND LANGUAGE
ALABAMA LANGUAGE INSTITUTE (ALI)**

ALI 030 COMPOSITION I (3T)

3 credits
This course is the beginner course in writing for non-native English speakers. This course provides instruction in basic sentence patterns and progresses through fully developed essays. Upon completion, students will demonstrate improvement in use of standard written English.

ALI 040 READING AND VOCABULARY I (3T)

3 credits
This course is the beginning reading and comprehension course for non-native English speakers. This course pro-

Course Descriptions

vides instruction in a variety of technical, literary and recreational readings. Upon completion, students will demonstrate improvement in English and reading and comprehension.

- ALI 050 Conversational English I (3T) 3 credits**
This course is the beginner course in oral communication for non-native English speakers. This course provides instruction in practice dialogues and grammatical exercises as well as free conversation. Upon completion, students will demonstrate improvement in oral communication skills.

FIRE SERVICES MANAGEMENT (FSC)

- FSC 101 INTRODUCTION TO THE FIRE SERVICE (3T) 3 credits**
This course is a survey of the philosophy and history of fire protection, loss of property and life by fire, review of municipal fire defenses, and the organization and function of federal, state, county, city, and private fire protection.
- FSC 200 FIRE COMBAT TACTICS AND STRATEGY (3T) 3 credits**
This course is a review of fire chemistry, equipment and manpower, basic fire fighting tactics and strategy, methods of attack and preplanning fire problems.
- FSC 210 BUILDING CONSTRUCTION FOR THE FIRE SERVICE (3T) 3 credits**
This course highlights and assesses the problems and hazards to fire personnel when a building is attacked by fire or is under stress from other factors dealing with collapse.
- FSC 240 FIRE CAUSE DETERMINATION (3T) 3 credits**
This course covers the burning characteristics of combustibles, interpretation of clues, burn patterns leading to points of origin, identification of incendiary indications, sources of ignition and ignited materials, and preservation of fire science evidence.
- FSC 292 ELEMENTS OF SUPERVISION/FIRE SERVICE SUPERVISION (3T) 3 credits**
This course covers the responsibility of supervisors, organization, human relations, grievance training, rating, promotion, quality-quantity control, and management-employee relations.

FRENCH (FRN)

- FRN 101 INTRODUCTORY FRENCH I (4T) 4 credits**
This course provides an introduction to French. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of French-speaking areas.
- FRN 102 INTRODUCTORY FRENCH II (4T) 4 credits**
PREREQUISITE: FRN 101 or equivalent.
This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of French-speaking areas.

- FRN 201 INTERMEDIATE FRENCH I (3T) 3 credits**
PREREQUISITE: FRN 102 or equivalent
This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

- FRN 202 INTERMEDIATE FRENCH II (3T) 3 credits**
PREREQUISITE: FRN 201 or equivalent
This continuation course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

GEOGRAPHIC INFORMATION SYSTEMS TECH (GIS)

- GIS 101 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS TECHNOLOGY (2T) 2 credits**
This is an introductory GIS course focusing on maps, map analysis, and an introduction to computers. Emphasis is placed on raster GIS capabilities, data acquisition, spatial databases, and using GIS and GIS trends. Upon completion, students will demonstrate the ability to use GIS in spatial analysis, output, graphics output design issues, modes of user/GIS interaction, generating complex products and GIS for archives. (Taught on Demand)

GEOGRAPHY (GEO)

- GEO 100 WORLD REGIONAL GEOGRAPHY (3T) 3 credits**
This course surveys various countries and major regions of the world with respect to location and landscape, world importance and political status, population, type of economy, external and internal organization and relations, problems and potentials.
- GEO 200 GEOGRAPHY OF NORTH AMERICA (3T) 3 credits**
PREREQUISITE: GEO 100
This course is a survey of the geography of the United States and Canada with special emphasis on land usage, mineral resources, industrial development, and social and economic adaptation of man and the natural environment.
- GEO 201 PRINCIPLES OF HUMAN GEOGRAPHY (3T) 3 credits**
PREREQUISITE: GEO 100
This course surveys the science of location, with emphasis on human activities as it relates to agricultural and industrial activities, and cities as market and production centers. Emphasis will be placed on human networks.
- GEO 220 PRINCIPLES OF PHYSICAL GEOGRAPHY (3T) 3 credits**
This course is an introduction to natural features of the earth. It concentrates on weather, climate, soil, and vegetation associations, on landforms and on the forces that have been active in shaping the earth's surface.

GERMAN (GRN)

- GRN 101 INTRODUCTORY GERMAN I (4T) 4 credits**
This course provides an introduction to German. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of German-speaking areas.
- GRN 102 INTRODUCTORY GERMAN II (4T) 4 credits**
PREREQUISITE: GRN 101 or equivalent
This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of German-speaking areas.
- GRN 201 INTERMEDIATE GERMAN I (3T) 3 credits**
PREREQUISITE: GRN 102 or equivalent
This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.
- GRN 202 INTERMEDIATE GERMAN II (3T) 3 credits**
PREREQUISITE: GRN 201 or equivalent
This continuation course includes a review and further development of communication skills. Topics include readings in literary, historical and/or cultural texts.