

**CIS 268. SOFTWARE SUPPORT.—3 hours. C**

PREREQUISITE: As required by college.

This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. The class will help to prepare participants for the A+ Certification sponsored by CompTIA.

**CIS 269. HARDWARE SUPPORT.—3 hours. C**

PREREQUISITE: As required by college.

This course provides students with hands-on practical experience in installation and troubleshooting computer hardware. The class will help to prepare participants for the A+ Certification sponsored by CompTIA.

**CIS 273. INTRODUCTION TO NETWORKING COMMUNICATIONS.—3 hours. C**

PREREQUISITE: As required by college.

This course is designed to introduce students to basic concepts of computer networks. Emphasis is placed on terminology and technology involved in implementing selected networked systems. The course covers various network models, topologies, communications protocols, transmission media, networking hardware and software, and network troubleshooting. Students gain hands-on experience in basic networking. This course further helps prepare students for certification.

**CIS 276. SERVER ADMINISTRATION.—3 hours. C**

PREREQUISITE: As required by college.

This course introduces network operating system administration. Topics included in this course are network operating system software installation, administration, monitoring, and maintenance; user, group, and computeraccount management; shared resource management; and server hardware management. Students gain hands-on experience in managing and maintaining a network operating system environment.

**CIS 285. OBJECT ORIENTED PROGRAMMING.—3 hours. B**

PREREQUISITE: As required by college.

This course is an advanced object-oriented programming course and covers advanced program development techniques and concepts in the context of an object-oriented language, such as C++ or Java. Subject matter includes object-oriented analysis and design, encapsulation, inheritance, polymorphism (operator and function overloading), information hiding, abstract data types, reuse, dynamic memory allocation, and file manipulation. Upon completion, students should be able to develop a hierarchical class structure necessary to the implementation of an object-oriented software system.

**CIS 299. DIRECTED STUDIES IN COMPUTER SCIENCE.—3 hours. C**

PREREQUISITE: As required by college.

This course allows independent study under the direction of an instructor. Topics to be included in the course material will be approved by the instructor prior to or at the beginning of the class. Upon completion, the student will be able to demonstrate knowledge of the topics as specified by the instructor.

**COSMETOLOGY (COS)****COS 111. COSMETOLOGY SCIENCE & ART.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 112 and/or as required by program.

In this course, students are provided a study of personal and professional image, ethical conduct, sanitation, hair styling, and nail care. Topics include personal and professional development, bacteriology, decontamination, infection control, draping, shampooing, conditioning, hair shaping, and hair styling. Upon completion, students should be able to apply safety rules and regulations and write procedures for skills identified in this course. **NDC, CORE**

**COS 112. COSMETOLOGY SCIENCE & ART LAB.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 111 and/or as required by program.

In this course, students are provided the practical experience for sanitation, shampooing, hair shaping, hairstyling, and nail care. Emphasis is placed on sterilization, shampooing, hair shaping, hairstyling, manicuring, and pedicuring. Upon completion, the student should be able to perform safety and sanitary precautions, shampooing, hair shaping, hairstyling, and nail care procedures. **NDC, CORE**

**COS 113. CHEMICAL METHODOLOGY.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 114 and/or as required by program.

This course focuses on the theory of hair and scalp disorders, permanent waving, chemical relaxers, and the composition of the hair. Topics include disorders and analysis of the scalp and hair, permanent waving, chemical hair relaxing, and soft curling. Upon completion, the student should be able to write procedures for permanent waving and chemical relaxing, identify the composition of the hair, safety and sanitary precautions and steps for scalp and hair analysis as well as the disorders. **NDC, CORE**

**COS 114. CHEMICAL METHODOLOGY LAB.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 113 and/or as required by program.

In this course, students are provided the practical experience of permanent waving, chemical relaxing, and hair analysis. Topics include permanent waving, chemical relaxing, soft curl, and scalp and hair analysis. Upon completion, the student should be able to analyze the scalp and hair and perform these chemical services using safety and sanitary precautions. **NDC, CORE**

**COS 121. COLORIMETRY.—3 hours**

PREREQUISITE: As required by program.

COREQUISITE: COS 122 and/or as required by program.

In this course, students learn the techniques of hair coloring and hair lightening. Emphasis is placed on color application, laws, levels and classifications of color and problem solving. Upon completion, the student should be able to identify all phases of hair coloring and the effects of the hair. **NDC, CORE**

**COS 122. COLORIMETRY APPLICATIONS.—  
3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 121 and/or as required by program.

In this course, students apply hair coloring and hair lightening techniques. Topics include consultation, hair analysis, skin test and procedures and applications of all phases of hair coloring and lightening. Upon completion, the student should be able to perform procedures for hair coloring and hair lightening. *NDC, CORE*

**COS 123. COSMETOLOGY SALON PRACTICES.—  
3 hours.**

PREREQUISITE: As required by program.

This course is designed to allow students to practice all phases of cosmetology in a salon setting. Emphasis is placed on professionalism, receptionist duties, hair styling, hair shaping, chemical, and nail and skin services for clients. Upon completion, the student should be able to demonstrate professionalism and the procedures of cosmetology in a salon setting. *NDC*

**COS 131. AESTHETICS.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 132 and/or as required by program.

This course is the study of cosmetic products, massage, skin care, and hair removal, as well as identifying the structure and function of various systems of the body. Topics include massage skin analysis, skin structure, disease and disorder, light therapy, facials, facial cosmetics, anatomy, and hair removal. Upon completion, the student should be able to state procedures for analysis, light therapy, facials, hair removal, and identify the structures, functions, and disorders of the skin. *NDC, CORE*

**COS 132. AESTHETICS APPLICATIONS.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 131 and/or as required by program.

This course provides practical applications related to the care of the skin and related structure. Emphasis is placed on facial treatments, product application, skin analysis, massage techniques, facial make-up, and hair removal. Upon completion, the student should be able to prepare clients, assemble sanitized materials, follow procedures for product application, recognize skin disorders, demonstrate facial massage movement, cosmetic application, and hair removal using safety and sanitary precautions. *NDC, CORE*

**COS 133. SALON MANAGEMENT TECHNOLOGY.  
—3 hours.**

PREREQUISITE: As required by program.

This course is designed to develop entry-level management skills for the beauty industry. Topics include job-seeking, leader and entrepreneurship development, business principles, business laws, insurance, marketing, and technology issues in the workplace. Upon completion, the student should be able to list job-seeking and management skills and the technology that is available for use in the salon. *NDC*

**COS 143. HAIR DESIGNS.—3 hours.**

PREREQUISITE: As required by program.

This course focuses on the theory and practice of hair designing. Topics include creating styles using basic and advanced techniques of back combing, up sweeps and braiding.

Upon completion, the student should be able to demonstrate the techniques and procedures for hair designing. *NDC*

**COS 144. HAIR SHAPING AND DESIGN.—3 hours.**

PREREQUISITE: As required by program.

In this course, students learn the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs. *NDC*

**COS 151. NAIL CARE.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 152 and/or as required by program.

This course focuses on all aspects of nail care. Topics include salon conduct, professional ethics, sanitation, nail structure, manicuring, pedicuring, nail disorders, and anatomy and physiology of the arm and hand. Upon completion, the student should be able to demonstrate professional conduct, recognize nail disorders and diseases, and identify the procedures for sanitation and nail care services. *NDC*

**COS 152. NAIL CARE APPLICATIONS.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 151 and/or as required by program.

This course provides practice in all aspects of nail care. Topics include salon conduct, professional ethics, bacteriology, sanitation and safety, manicuring and pedicuring. Upon completion, the student should be able to perform nail care procedures. *NDC*

**COS 153. NAIL ART.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 154 and/or as required by program.

This course focuses on advanced nail techniques. Topics include acrylic, gel, fiberglass nails, and nail art. Upon completion, the student should be able to identify the different types of sculptured nails and recognize the different techniques of nail art. *NDC*

**COS 154. NAIL ART APPLICATIONS.—3 hours.**

PREREQUISITE: As required by program.

COREQUISITE: COS 153 and/or as required by program.

This course provides practice in advanced nail techniques. Topics include acrylic, gel, fiberglass nails, and nail art. Upon completion, the student should be able to perform the procedures for nail sculpturing and nail art. *NDC*

**COS 163. FACIAL TREATMENTS.—3 hours.**

PREREQUISITE: As required by program.

This course includes all phases of facial treatments in the study of skin care. Topics include treatments for oily, dry, and special skin applications. Upon completion, students will be able to apply facial treatments according to skin type. *NDC*

**COS 164. FACIAL MACHINE.—3 hours.**

PREREQUISITE: As required by program.

This is a course designed to provide practical experience using the vapor and facial machine with hydraulic chair. Topics include the uses of electricity and safety practices, machine and apparants, use of the magnifying lamp, and light therapy. Upon completion, the student will be able to demonstrate the understanding of electrical safety and skills in the use of facial machines. *NDC*

**COS 165. RELATED SUBJECTS ESTHETICIANS.—  
3 hours.**

PREREQUISITE: As required by program.

This course includes subjects related to the methods for removing unwanted hair. This course includes such topics as electrolysis information and definitions, safety methods of permanent hair removal, the practice of removal of superfluous hair, and the use of depilatories. Upon completion of this course, students will be able to apply depilatories and practice all safety precautions. *NDC*

**COS 166. COLOR PSYCHOLOGYCOORDINATION.  
—3 hours.**

PREREQUISITE: As required by program.

This skin care course is designed for the make-up artist requirements to be a professional make-up artist. Topics this course includes are make-up techniques for all skin types, sanitation of application tools and color tonality as it relates to make-up. Upon completion of this course, students will be able to apply make-up after determining correct skin tones, skin types and facial shapes, and design personalized make-up techniques for clients. *NDC*

**COS 167. STATE BOARD REVIEW.—1-3 hours.**

PREREQUISITE: As required by program.

Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the practical skills necessary to complete successfully the required State Board of Cosmetology examination and entry-level employment.

**COS 168. BACTERIOLOGY AND SANITATION.—  
3 hours.**

PREREQUISITE: As required by program.

In this skin care course, emphasis is placed on the decontamination, infection control and safety practiced in the esthetics facility. Topics covered include demonstration of sanitation, sterilization methods and bacterial prevention. Upon completion, the student will be able to properly sanitize facial implements and identify non-reusable items. *NDC*

**COS 169. SKIN FUNCTIONS.—3 hours.**

PREREQUISITE: As required by program.

This course introduces skin functions and disorders. Topics include practical application for skin disorder treatments, dermabrasion, and skin refining. Upon completion of this course, student will be able to demonstrate procedures for acne, facials and masks for deeper layers and wrinkles. *NDC*

**COS 181-182. SPECIAL TOPICS.—3 hours**

PREREQUISITE: As required by program.

These courses provide for instruction unique to various areas of the cosmetology industry. Emphasis is on meeting individual student needs.

**COS 190. INTERNSHIP IN COSMETOLOGY.—  
1-3 hours.**

PREREQUISITE: As required by program.

This course is designed to provide exposure to cosmetology practices in non-employment situations. Emphasis is on dependability, attitude, professional judgment, and practical cosmetology skills. Upon completion, the student should have gained skills necessary for entry-level employment. *NDC*

**COS 191. CO-OP.—1-3 hours.**

PREREQUISITE: As required by program.

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

**CRIMINAL JUSTICE (CRJ)****CRJ 100. INTRODUCTION TO CRIMINAL  
JUSTICE.—3 hours. B**

PREREQUISITE: As required by program.

This course surveys the entire criminal justice process from law enforcement to the administration of justice through corrections. It discusses the history and philosophy of the system and introduces various career opportunities.

**CRJ 110. INTRODUCTION TO LAW  
ENFORCEMENT. —3 hours. B**

PREREQUISITE: As required by program.

This course examines the history and philosophy of law enforcement, as well as the organization and jurisdiction of local, state, and federal agencies. It includes the duties and functions of law enforcement officers.

**CRJ 140. CRIMINAL LAW AND PROCEDURE.—  
3 hours. C**

PREREQUISITE: As required by program.

This course examines both substantive and procedural law. The legal elements of various crimes are discussed, with emphasis placed on the contents of the Alabama Code. Areas of criminal procedure essential to the criminal justice profession are also covered.

**CRJ 150. INTRODUCTION TO CORRECTIONS.—  
3 hours. B**

PREREQUISITE: As required by program.

This course provides an introduction to the philosophical and historical foundations of corrections in America. Incarceration and some of its alternatives are considered.

**DRAFTING DESIGN TECHNOLOGY/  
COMPUTER AIDED DRAFTING PROGRAM****DDT 104. INTRODUCTION TO COMPUTER AIDED  
DRAFTING AND DESIGN.—3 hours.**

This course provides an introduction to basic Computer Aided Drafting and Design (CADD) functions and techniques, using 'hands-on' applications. Topics include terminology, hardware, basic CADD and operating system functions, file manipulation, and basic CADD software applications in producing softcopy and hardcopy. This is a **CORE** course.

**DDT 111. FUNDAMENTALS OF DRAFTING AND  
DESIGN TECHNOLOGY.—3 hours.**

This course serves as an introduction to the field of drafting and design and provides a foundation for the entire curriculum. Topics include safety, lettering, tools and equipment, geometric

constructions, and orthographic sketching. Upon completion, students should develop and use safe work habits, identify and properly use common drafting tools and equipment, construct geometric figures, and sketch basic orthographic views of objects.

**DDT 114. INDUSTRIAL BLUEPRINT READING.—  
3 hours.**

This course provides students with basic blueprint reading for various industrial applications. Topics include orthographic projection, dimensions and tolerances, symbols, industrial application, scales and notes. This course may be tailored to meet a specific industry need.

**DDT 124. TECHNICAL DRAWING I.—3 hours.**

This course covers sections, auxiliary views, and basic space geometry. Emphasis will be placed on the theory as well as the mechanics of applying sections, basic dimensioning, auxiliary views, and basic space geometry. This is a **CORE** course.

**DDT 115. BLUEPRINT READING FOR MACHINISTS.  
—3 hours.**

PREREQUISITE: As required by program.

This course provides the students with terms and definitions, theory of orthographic projection, and other information required to interpret drawings used in the machine trades. Topics include multiview projection, pictorial drawings, dimensions and notes, lines and symbols, and sketching. Upon completion, students should be able to interpret blueprint drawings used in the machine trades.

**DDT 116. BLUEPRINT READING FOR  
CONSTRUCTION.—3 hours.**

PREREQUISITE: As required by program.

This course provides the students with terms and definitions, theory of orthographic projection, and other information required to interpret drawings used in the construction trades. Topics include multiview projection, dimensions and notes, lines and symbols, sketching, foundations plans, site plans, floor plans, elevations, sections, details, schedules, electrical plans and specifications. Upon completion, students should be able to interpret blueprint drawings used in the machine trades.

**DDT 118. BASIC ELECTRICAL DRAFTING.—  
3 hours.**

PREREQUISITE: DDT 111, DDT 124, DDT 104, and/or as required by program.

This course covers the universal language of electrical drafting, including electrical lines, symbols, abbreviations, and notation. Emphasis is placed on typical components such as generators, controls, transmission networks, and lighting, heating, and cooling devices. Upon completion, students should be able to draw basic diagrams of electrical and electronic circuits using universally accepted lines and symbols.

**DDT 122. ADVANCED TECHNICAL DRAWING.—  
3 hours.**

PREREQUISITE: DDT 104, DDT 111, DDT 124 or instructor approval.

This course covers methods of providing size description and manufacturing information for production drawings and

includes common fasteners and welding symbols. Emphasis will be placed on accepted dimensioning and tolerancing practices, including geometric dimensioning and tolerancing for both the customary English system and the ISO system, common fasteners and welding symbols.

**DDT 127. INTERMEDIATE COMPUTER AIDED  
DRAFTING.—3 hours.**

PREREQUISITE: DDT 103 or instructor approval.

This course covers intermediate-level concepts and applications of CADD. Emphasis will be placed on intermediate-level features, commands, and applications of CADD software. This is a **CORE** course. This course supports CIP code 48.0101.

**DDT 128. TECHNICAL DRAWING II.—3 hours.**

PREREQUISITE: DDT 111, DDT 124 or instructor approval.

This course is designed to develop a strong foundation in common drafting and design practices and procedures. Topics include dimensioning concepts and pictorial drawings. This is a **CORE** course.

**DDT 132. ARCHITECTURAL DRAFTING.—3 hours.**

PREREQUISITE: DDT 104, DDT 111, DDT 124 or instructor approval.

This course in architectural design and drafting introduces basic terminology, concepts and principal of architectural drawing. Topics include design considerations, lettering, terminology; site plans, and construction drawings. Upon completion, students should be able to draw, dimension, and specify basic residential architectural construction drawings.

**DDT 133. BASIC SURVEYING.—3 hours.**

This course covers the use of surveying instruments, mathematical calculations and the theory and land surveying. Topics include USGS benchmarks, measuring horizontal and vertical angles and distances, terms, and recording and interpreting field notes. Upon completion, students should be able to recognize benchmarks and measure, specify, and record field notes.

**DDT 191. DRAFTING INTERNSHIP.—1 hour.**

PREREQUISITE: As required by program.

This course is designed for those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 5 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, the student will have gained valuable work experience in a well-planned, coordinated training/work situation.

**DDT 192. DRAFTING INTERNSHIP.—2 hours.**

PREREQUISITE: As required by program.

This course is limited to those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 10 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, the student will have gained valuable work experience in a well-planned, coordinated training/work situation.

**DDT 193. DRAFTING INTERNSHIP.—3 hours.**

PREREQUISITE: As required by program.

This course is limited to those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 15 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, the student will have gained valuable work experience in a well-planned, coordinated training/work situation.

**DDT 212. INTERMEDIATE ARCHITECTURAL DRAFTING.—3 hours.**

PREREQUISITE: DDT 132 or instructor approval.

This second course in architectural design and drafting continues with more advanced and detailed architectural plans. Topics include floor construction and detailing, foundation, wall, and roof construction and detailing; use of standards manuals; perspective drawings; electrical plans; plumbing plans; and building materials, with emphasis on residential and some light commercial applications. Upon completion, students should be able to draw and specify advanced-level plans including various architectural details.

**DDT 213. CIVIL DRAFTING.—3 hours.**

PREREQUISITE: DDT 104, DDT 111, DDT 124 or instructor approval.

This course introduces the drafting practices, symbols, conventions, and standards utilized in civil engineering contract documents. Topics include site planning, land surveying, topographies, along with civil terminology. Upon completion, students should be able to draw accurate plat maps giving legal descriptions of land parcels, draw simple site plans, and identify and use proper symbols and conventions on civil engineering drawings.

**DDT 225. STRUCTURAL STEEL DRAFTING.—3 hours.**

PREREQUISITE: DDT 104, DDT 111, DDT 124 or instructor approval.

This course covers the theory and practical applications necessary to understand the basic design and terminology of structural steel components used in light commercial buildings. Emphasis is placed on structural steel techniques, bolted and welding connections, framing plans, sections, fabrication and connection details, and bills of material. Upon completion, students should be able to produce engineering and shop drawings incorporating standards shapes, sizes, and details using the A.I.S.C. Manual and incorporating safety practices.

**DDT 231. ADVANCED COMPUTER AIDED DRAFTING.—3 hours.**

PREREQUISITE: DDT 104, DDT 111, DDT 124, or instructor approval.

This course covers the advanced applications of CAD software to engineering projects in various applications, including architectural, civil, mechanical, and environmental engineering, with consideration for advanced physical and psychological principle of CAD. These principles will be applied toward CAD customization and programming principles, for the expressed purpose of increasing productivity and improving the performance of the CAD operator, thereby,

making CAD much more productive in an engineering environment. Emphasis will be placed on using intelligent CAD techniques to increase the quality of output. And, 3D modeling and rendering will be introduced. Upon completion, students should be able to apply advanced CAD techniques in solving complex problems related to all engineering applications.

**DDT 233. SOLIDS MODELING.—3 hours.**

PREREQUISITE: DDT 127 and/or as required by program.

This course provides instruction in 3D Design Modeling utilizing the 3D capabilities of CAD software. Emphasis is placed on 3D wire-frame, surface and solids modeling along with the development of 2D detail drawings from 3D models. Upon completion, students should be able to generate 3D surface and solid models and 2D orthographic production drawings from created solid models.

**DDT 239. INDEPENDENT STUDIES.—1-4 hours.**

PREREQUISITE: Instructor approval.

This course provides practical application of prior attained skills and experiences as selected by the instructor for the individual student. Emphasis is placed on applying knowledge from prior courses toward the solution of individual drafting and design problems. With completion of this course, the student will demonstrate the application of previously attained skills and knowledge in the solution of typical drafting applications and problems.

**ECONOMICS (ECO)****ECO 231. PRINCIPLES OF MACROECONOMICS.—3 hours. A**

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.—3 hours. A**

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.

**ELECTRICAL TECHNOLOGY (ELT)****ELT 114. RESIDENTIAL WIRING I.—3 hours.**

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations. ELT 114 and ELT 115 may be taken in the place of ELT 116.

**ELT 115. RESIDENTIAL WIRING II.—3 hours.**

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations. ELT 114 and ELT 115 may be taken in the place of ELT 116.

**ELT 116. RESIDENTIAL WIRING.—6 hours.**

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations. ELT 116 may be taken in the place of ELT 114 and ELT 115.

## **EMERGENCY MEDICAL SERVICES – PARAMEDIC (EMP)**

**EMP 191. PARAMEDIC PREPARATORY.—2 hours.**

**PREREQUISITE:** Admission to the EMT-Paramedic Program  
**COREQUISITE:** Approved anatomy and physiology course(s)

This course introduces issues related to the practice of prehospital 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.—3 hours.**

**PREREQUISITES:** Admission to the EMT-Paramedic Program

**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.

**EMP 193. PATIENT ASSESSMENT AND  
MANAGEMENT.—3 hours.**

**PREREQUISITE:** Admission to the EMT-Paramedic Program  
**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.—2 hours.**

**PREREQUISITE:** Admission to the EMT-Paramedic Program  
**COREQUISITE:** Approved anatomy and physiology course(s)

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 196. ADVANCED TRAUMA MANAGEMENT B.  
—3 hours.**

**PREREQUISITE:** Admission to the EMT-Paramedic Program  
**COREQUISITE:** Approved anatomy and physiology course(s)

This course related 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 EMP-Paramedic and requirements set forth by the Alabama Department of Public Health.

**EMP 197. PARAMEDIC CLINICAL**

**COMPETENCIES I.—3 hours. PREREQUISITE:** Admission to the EMT-Paramedic Program

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

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.—  
3 hours.**

**PREREQUISITE:** Admission to the EMT-Paramedic Program  
**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: 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.