

# EMERGENCY MEDICAL SVCS (EMS) (EMS)

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## **EMS 100 Cardiopulmonary Resuscitation 1 cr**

Cardiopulmonary Resuscitation (CPR) emphasizes the scope and magnitude of cardiovascular disease causes of sudden death, and the effects of prudent heart living as a tool to reduce risk factors associated with cardiovascular disease. The skills component identifies and measures competence in one-person CPR, two person adult CPR, infant and child CPR, and management of airway obstruction. Course completion cards are issued by the American Heart Association.

## **EMS 104 First Aid/CPR 1 cr**

This American Heart Association course includes the basics of First Aid and Cardiopulmonary Resuscitation (CPR) for Adults, Children and Infants. Course content includes instruction on recognition and management of medical and trauma emergencies including environmental emergencies. The skills component includes competence in one-person adult, infant and child CPR, and management of airway obstruction as well as skills associated with trauma and medical emergencies. Course completion cards are issued by the American Heart Association.

## **EMS 110 Emergency Medical Responder 3 cr**

A skills approach in helping the student to intervene in any medical or traumatic emergency situation before emergency personnel arrive. Emphasis is placed on care of the airway, CPR, control of bleeding, splinting and bandaging, and overall management. Clinical rotations include emergency department and ambulance. American Heart Association Healthcare Provider CPR certification will be awarded. Successful completion of this course permits the student to sit for the National Registry exam for Emergency Medical Responder. Upon successful completion of the National Registry exam the student may apply for a license with the Alabama Department of Public Health as an Emergency Medical Responder.

## **EMS 112 EMT Emergency Care 6 cr**

Includes all required modules of the 2009 National EMS Educational Standard Curriculum. Topics include pathophysiology, patient assessment, airway management, hemorrhage control, management of fractures, care of individuals with special needs, emergency childbirth, care of infants and children, medical emergencies, environmental emergencies, transportation of the sick and injured, operations and radio communications. Prerequisite: AHA BLS for Health Care Providers.

**Corequisite:** EMS 113, EMS 115

## **EMS 113 EMT Skills Lab 1 cr**

Emergency Medical Technician Skills practicum, Designed to allow EMT students extensive practice of required psychomotor skills.

**Corequisite:** EMS 112, EMS 115

## **EMS 115 EMT Clinical Internship 1 cr**

Pre-hospital care and transportation of the sick and injured using principles of basic life support, correlated with emergency department experience. Time distributed between emergency department and ambulance.

**Corequisite:** EMS 112, EMS 113

## **EMS 140 Advanced EMT 6 cr**

This course includes theoretical concepts and competencies outlined in the National EMS Education Standards for Advanced EMT's. Major topical areas include EMS operations, airway management, assessment and management of the medical and trauma patient, pharmacology for the A-EMT, public health and life span development, among others.

**Prerequisite:** EMS 112 Minimum Grade of B and EMS 113 Minimum Grade of S and EMS 115 Minimum Grade of S and EMS 210 (may be taken concurrently) Minimum Grade of B

**Corequisite:** EMS 141, EMS 143

## **EMS 141 Advanced EMT Skills Lab 1 cr**

This course is designed to integrate previously learned theory on advanced pre-hospital assessment, treatment and documentation of the medical and traumatic emergency patient. The course includes psychomotor skills and competencies outlined in the DOT's National EMS Education Standards for Advanced EMTs.

**Prerequisite:** (EMS 210 (may be taken concurrently) Minimum Grade of B or EMT 210 Minimum Grade of B) and (EMS 200 (may be taken concurrently) Minimum Grade of B or EMT 310 Minimum Grade of B) and (EMS 140 (may be taken concurrently) Minimum Grade of B or EMT 321 Minimum Grade of B) and (EMS 143 (may be taken concurrently) Minimum Grade of S or EMT 371 (may be taken concurrently) Minimum Grade of S)

## **EMS 143 Advanced EMT Internship 2 cr**

Supervised clinical and field experiences emphasizing patient care in the hospital and out-of-hospital environments. Time distributed between hospital emergency departments, fire rescue departments, and ambulance services, among others.

**Prerequisite:** (EMS 210 (may be taken concurrently) Minimum Grade of B or EMT 210 Minimum Grade of B) and (EMS 200 (may be taken concurrently) Minimum Grade of B or EMT 310 Minimum Grade of B) and (EMS 140 (may be taken concurrently) Minimum Grade of B or EMT 321 Minimum Grade of B) and (EMS 141 (may be taken concurrently) Minimum Grade of S or EMT 361 Minimum Grade of S)

## **EMS 200 Human Systems/Pathophysiology 3 cr**

An overview of the human body systems and disease processes. Emphasis is placed on the functions of human systems and subsystems relative to pathophysiology. Includes concepts of pathophysiology included in the National Standard Curriculum for the Paramedic and the requirements set forth by the Alabama Department of Public Health.

## **EMS 210 Medical Terminology 3 cr**

Medical vocabulary including prefixes, suffixes and their etymological derivation. Proper pronunciation stressed as well as logic, grammar, and spelling. Course includes an overview of human anatomy and physiology.

**EMS 212 Paramedic Foundations 3 cr**

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 communication, pharmacology and advance airway management. Upon course completion, student will have met the objectives as outlined in the National Standard Curriculum for the Paramedic.

**Prerequisite:** (EMS 210 Minimum Grade of B or EMT 210 Minimum Grade of B) and (EMS 140 Minimum Grade of B or EMT 321 Minimum Grade of B) and (EMS 141 Minimum Grade of S or EMT 361 Minimum Grade of S) and (EMS 143 Minimum Grade of S or EMT 371 Minimum Grade of S) and (EMS 200 Minimum Grade of B or EMT 310 Minimum Grade of B) or ((BMD 114 Minimum Grade of C or BLY 151 Minimum Grade of C or CLS 114 Minimum Grade of C) and (BMD 115 Minimum Grade of C or BLY 152 Minimum Grade of C or CLS 115 Minimum Grade of C) and (EMS 214 (may be taken concurrently) Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 (may be taken concurrently) Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 (may be taken concurrently) Minimum Grade of S or EMT 465 Minimum Grade of S)

**EMS 214 Introduction to EMS Cardiology 3 cr**

Rhythm interpretation in Lead II EKG. Rapid recognition, defibrillation and/or therapeutic management of potentially lethal rhythms and myocardial infarction. Objectives include twelve lead placement and basic rhythm recognition.

**Prerequisite:** (EMS 210 Minimum Grade of B or EMT 210 Minimum Grade of B) and (EMS 140 Minimum Grade of B or EMT 321 Minimum Grade of B) and (EMS 141 Minimum Grade of S or EMT 361 Minimum Grade of S) and (EMS 143 Minimum Grade of S or EMT 371 Minimum Grade of S) and (EMS 200 Minimum Grade of B or EMT 310 Minimum Grade of B) or ((BMD 114 Minimum Grade of C or BLY 151 Minimum Grade of C or CLS 114 Minimum Grade of C) and (BMD 115 Minimum Grade of C or BLY 152 Minimum Grade of C or CLS 115 Minimum Grade of C)) and EMS 212 Minimum Grade of C and (EMS 216 (may be taken concurrently) Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 (may be taken concurrently) Minimum Grade of S or EMT 465 Minimum Grade of S)

**EMS 216 Patient Assess/Mgt & EMS Oper 3 cr**

Includes history taking, physical examination, clinical decision making, communications, documentation, assessment-based management of medical and trauma patients, ambulance operations, incident command rescue, Hazmat and crime scene awareness.

**Prerequisite:** (EMS 210 Minimum Grade of B or EMT 210 Minimum Grade of B) and (EMS 140 Minimum Grade of B or EMT 321 Minimum Grade of B) and (EMS 141 Minimum Grade of S or EMT 361 Minimum Grade of S) and (EMS 143 Minimum Grade of S or EMT 371 Minimum Grade of S) and (EMS 200 Minimum Grade of B or EMT 310 Minimum Grade of B) or ((BMD 114 Minimum Grade of C or BLY 151 Minimum Grade of C or CLS 114 Minimum Grade of C) and (BMD 115 Minimum Grade of C or BLY 152 Minimum Grade of C or CLS 115 Minimum Grade of C)) and EMS 212 (may be taken concurrently) Minimum Grade of B and (EMS 214 (may be taken concurrently) Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 217 (may be taken concurrently) Minimum Grade of S or EMT 465 Minimum Grade of S)

**EMS 217 Paramedic Clinical I 3 cr**

Supervised clinical experiences emphasizing patient care in the hospital and outpatient clinical settings as outlined in the National Standard Curriculum for the Paramedic.

**Prerequisite:** (EMS 210 Minimum Grade of B or EMT 210 Minimum Grade of B) and (EMS 140 Minimum Grade of B or EMT 321 Minimum Grade of S) and (EMS 141 Minimum Grade of S or EMT 361 Minimum Grade of S) and (EMS 143 Minimum Grade of S or EMT 371 Minimum Grade of S) and (EMS 200 Minimum Grade of B or EMT 310 Minimum Grade of B or ((BMD 114 Minimum Grade of B or BLY 151 Minimum Grade of B or CLS 114 Minimum Grade of B) and BMD 115 Minimum Grade of B or BLY 152 Minimum Grade of B or CLS 115 Minimum Grade of B)) and EMS 212 (may be taken concurrently) Minimum Grade of B and (EMS 214 (may be taken concurrently) Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 (may be taken concurrently) Minimum Grade of B or EMT 350 Minimum Grade of B)

**EMS 240 EMS Resp. Special Populations 3 cr**

This course relates pathophysiology and assessment findings to the formation of field impressions and treatment plans specific to special populations. Subject matter will include gynecology, obstetrics, abuse and assault, neonatology, pediatrics, special needs and the geriatric community. Upon course completion, students will have met the objectives for special populations as outlined in the National Standard Curriculum for the Paramedic.

**Prerequisite:** EMS 212 Minimum Grade of B and (EMS 214 Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 Minimum Grade of S or EMT 465 Minimum Grade of S) and (EMS 242 (may be taken concurrently) Minimum Grade of B or EMT 355 Minimum Grade of B) and (EMS 244 (may be taken concurrently) Minimum Grade of B or EMT 425 Minimum Grade of B) and (EMS 245 (may be taken concurrently) Minimum Grade of S or EMT 455 Minimum Grade of S) and (EMS 247 (may be taken concurrently) Minimum Grade of S or EMT 466 Minimum Grade of S)

**EMS 242 Paramedic Emergency Care I 3 cr**

Includes pathophysiology, assessment and management of patients suffering from pulmonary and cardiovascular diseases. Additional modules may be added in accordance to standards and guidelines in the National Standard Curriculum for the Paramedic and the American Heart Association. Student will receive an ACLS provider certification upon successful completion.

**Prerequisite:** EMS 212 Minimum Grade of B and (EMS 214 Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 Minimum Grade of S or EMT 465 Minimum Grade of S) and (EMS 240 (may be taken concurrently) Minimum Grade of B or EMT 375 Minimum Grade of B) and (EMS 244 (may be taken concurrently) Minimum Grade of B or EMT 425 Minimum Grade of B) and (EMS 245 (may be taken concurrently) Minimum Grade of S or EMT 455 Minimum Grade of S) and (EMS 247 (may be taken concurrently) Minimum Grade of S or EMT 466 Minimum Grade of S)

**EMS 244 Paramedic Emergency Care II 3 cr**

Includes pathophysiology, assessment and management of patients suffering from medical emergencies not included in EMS 240 and EMS 242 in accordance to the National Standard Curriculum for the Paramedic.

**Prerequisite:** EMS 212 Minimum Grade of B and (EMS 214 Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 Minimum Grade of S or EMT 465 Minimum Grade of S) and (EMS 240 (may be taken concurrently) Minimum Grade of B or EMT 375 Minimum Grade of B) and (EMS 242 (may be taken concurrently) Minimum Grade of B or EMT 355 Minimum Grade of B) and (EMS 245 (may be taken concurrently) Minimum Grade of S or EMT 455 Minimum Grade of S) and (EMS 247 (may be taken concurrently) Minimum Grade of S or EMT 466 Minimum Grade of S)

**EMS 245 Paramedic Skills Lab 1 cr**

Advanced out-of-hospital practicum. Designed to integrate all previously learned theory, management concepts and behavioral objectives as outlined in the National Standard Curriculum for the Paramedic.

**Prerequisite:** EMS 212 Minimum Grade of B and (EMS 214 Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 Minimum Grade of S or EMT 465 Minimum Grade of S) and (EMS 240 (may be taken concurrently) Minimum Grade of B or EMT 375 Minimum Grade of B) and (EMS 242 (may be taken concurrently) Minimum Grade of B or EMT 355 Minimum Grade of B) and (EMS 244 (may be taken concurrently) Minimum Grade of B or EMT 425 Minimum Grade of B)

**EMS 247 Paramedic Clinical II 2 cr**

Supervised clinical experiences emphasizing patient care in the hospital and outpatient clinical settings as outlined in the National Standard Curriculum for the Paramedic.

**Prerequisite:** EMS 212 Minimum Grade of B and (EMS 214 Minimum Grade of B or EMT 340 Minimum Grade of B) and (EMS 216 Minimum Grade of B or EMT 350 Minimum Grade of B) and (EMS 217 Minimum Grade of S or EMT 465 Minimum Grade of S) and (EMS 240 (may be taken concurrently) Minimum Grade of B or EMT 375 Minimum Grade of B) and (EMS 242 (may be taken concurrently) Minimum Grade of B or EMT 355 Minimum Grade of B) and (EMS 244 (may be taken concurrently) Minimum Grade of B or EMT 425 Minimum Grade of B) and (EMS 245 (may be taken concurrently) Minimum Grade of S or EMT 455 Minimum Grade of S)

**EMS 270 PALS 3 cr**

Course based on American Heart Association's Emergency Cardiovascular Care program. Includes assessment and management of pediatric cardiovascular and respiratory emergencies. Upon successful completion, the student will receive PALS provider certification. Recommended for health care providers and health care provider students.

**EMS 280 Advanced Cardiac Life Support 3 cr**

Course based on American Heart Association's Emergency Cardiovascular Care program. Includes in-depth review of all cases required for a full ACLS course. Recommended for health care providers and health care provider students. Upon successful completion, the student will receive ACLS certification.

**EMS 295 Paramedic Field Internship 4 cr**

Supervised field experiences with an out-of-hospital advanced life support service emphasizing patient care and team leadership skills as outlined in the National Standard Curriculum for the Paramedic.

**Prerequisite:** (EMS 240 Minimum Grade of B or EMT 375 Minimum Grade of B) and (EMS 242 Minimum Grade of B or EMT 355 Minimum Grade of B) and (EMS 244 Minimum Grade of B or EMT 425 Minimum Grade of B) and (EMS 245 Minimum Grade of S or EMT 455 Minimum Grade of S) and (EMS 247 Minimum Grade of S or EMT 466 Minimum Grade of S) and (EMS 297 (may be taken concurrently) Minimum Grade of S or EMT 495 (may be taken concurrently) Minimum Grade of S)

**EMS 296 Special Topics in EMS 1-3 cr**

Selected topics in Emergency Medical Services and Emergency Response Training. Topics will vary according to needs and interest of students. Course may be repeated for credit when content varies.

**EMS 297 Paramedic Comp Review/Exams 3 cr**

Culmination of paramedic education. Includes practical skills lab designed to prepare the student for state licensure exams. A final practical and written exam will be administered as a final evaluation of student progress.

**Prerequisite:** (EMS 240 Minimum Grade of B or EMT 375 Minimum Grade of B) and (EMS 242 Minimum Grade of B or EMT 355 Minimum Grade of B) and (EMS 244 Minimum Grade of B or EMT 425 Minimum Grade of B) and (EMS 245 Minimum Grade of S or EMT 455 Minimum Grade of S) and (EMS 247 Minimum Grade of S or EMT 466 Minimum Grade of S) and (EMS 295 (may be taken concurrently) Minimum Grade of S or EMT 475 (may be taken concurrently) Minimum Grade of S)

**EMS 298 Directed Studies in EMS 1-3 cr**

Selected topics in Emergency Medical Services and Emergency Response Training. Topics will vary according to needs and interest of students. Course may be repeated for credit when content varies.

**EMS 300 Human Systems/Pathophysiology 3 cr**

An overview of the human body systems and disease processes. Emphasis is placed on the functions of human systems and subsystems relative to pathophysiology. Includes concepts of pathophysiology included in the National Standard Curriculum for the Paramedic and the requirements set forth by the Alabama Department of Public Health.

**EMS 310 Intro to EMS Systems 3 cr**

This course provides students with an introduction to Emergency Medical Services (EMS) Systems. Theoretical concepts and issues will be discussed and examined in order to provide students with a conceptual basis for understanding and analyzing EMS systems and organizations. Particular emphasis will be placed on system components, system integration and the roles and responsibilities of management and leadership in EMS organizations.

**EMS 315 EMS Administration 3 cr**

This course provides a general overview of management and administration functions required of EMS managers today including planning, directing, budgeting, staffing and evaluation. Particular emphasis will be placed on issues relating to human resources, EMS operations, and organizational planning.

**EMS 320 EMS Law and Legal Issues-W 3 cr**

This course will provide a general overview of the origins of law in the United States with particular emphasis on health laws and regulations affecting pre-hospital providers. Topics include issues relating to malpractice, litigation, consent and refusal of medical treatment, advanced directives, patient confidentiality, and expert witness preparation, among others.

**EMS 325 Instructional Methods in EMS 3 cr**

This course presents theoretical and practical foundations necessary for entry level EMS instructors and coordinators. Topics include instructor roles and responsibilities, learning theory, lesson plan development, test writing and validation, and program evaluation. Additional emphasis will be placed on instructional techniques for the adult learner.

**EMS 340 Disaster Mgt & Event Planning 3 cr**

Considerations of the theoretical and practical foundations necessary to manage incidents involving multiple casualties and multiple agencies as well as the planning and management of other large scale events. Topics include disaster planning, incident command, WMD, response issues, and scene control, among others.

**EMS 350 Critical Care Paramedic 3 cr**

This course provides paramedics with advanced skills and knowledge in critical care medicine. Students successfully completing this course and its subsequent internship (EMS 375) will be eligible to sit for national certification as a Critical Care Paramedic.

**EMS 375 Crit Care Paramedic Internship 3 cr**

An advanced clinical internship course for licensed paramedics who have successfully completed EMS 350. Internship is conducted in an approved critical care setting or facility. Successful completion of this course allows the student to sit for national certification examination as a Critical Care Paramedic.

**EMS 401 Seminar in HP 3 cr**

This course is designed to provide students with an overview of different health professions and their scope of practice and also to provide information about health administration.

**EMS 410 Concepts of Prof Paramedic 6 cr**

This bridge course is designed for licensed (or nationally certified) paramedics who are admitted to the Department's Paramedic to BS in EMS Track. This course provides critical updates and information related to paramedic practice and enhances the student's overall patient assessment and critical thinking skills. Focus of the course is on selected theories and concepts integrated throughout the curriculum. Additional emphasis will be on the professional roles of paramedics. Prerequisite: Paramedic to BSEMS Track.

**EMS 440 Health Insurance/Managed Care 3 cr**

This course provides an overview of the basic concepts and principles in the health insurance and managed care environments. Particular emphasis will be placed on issues relating to the costs, quality and access to emergency medical services. Topics include Medicare and Medicaid reimbursement, Managed Care contracting and EMS Quality Management, among others.

**EMS 445 EMS Research - W 3 cr**

An introduction to basic research methods and basic statistical procedures used in Emergency Medical Services research. Students will use this information in order to assist them with reading, interpreting and evaluating articles in the pre-hospital healthcare literature.

**EMS 460 Issues and Trends in EMS 3 cr**

Explores issues and trends at the federal, state and local levels facing EMS leaders and EMS organizations. Particular emphasis is on new and proposed programs, policies and practices which affect pre-hospital healthcare providers.

**EMS 475 EMS Internship 3 cr**

Structured field experience providing the student to work in an EMS administration, management or educational environment; observation of leadership processes within an EMS organization; application of EMS leadership theory and techniques.

**EMS 494 Directed Studies 1-3 cr**

Student completes an individual project in a specific EMS area under the guidance and supervision of an EMS faculty member.

**EMS 495 EMS Comp/Review Exam 1 cr**

The comprehensive examination is the capstone of the Emergency Medical Services degree program. A written examination based on the program objectives of the EMS degree program will be administered as a final evaluation of the student's progress.