

PARAMEDIC/ALLIED HEALTH (EMS)

EMS 105 (6 credit hours)

Emergency Medical Technician - EMT

Provides the first level of training in the career structure of Emergency Medical Services. Integrates didactic course material and the lab component necessary for the delivery of entry level emergency medical care to individuals who are experiencing a disruption in normal body functions due to illness and/or injury and require intervention to prevent morbidity and mortality. Prepares the student to sit for the National Registry EMT examination that is required for Kentucky certification as an EMT. Focuses on basic anatomy and physiology, scene and patient assessment, airway and ventilation, cardiovascular and body systems support, motion limiting devices, wound and fracture management, administration of basic patient medications, extrication, transportation, and patient monitoring as well as medico-legal aspects and ambulance operations. Includes a minimum twenty-four (24) hour clinical observation in the emergency department and/or on a state licensed ambulance service. Integrated Lecture: 4 credits (60 contact hours). Integrated Laboratory: 2 hours (90 contact hours).

Pre-requisite: Minimum ACT Reading Score of 15 or Consent of Instructor.

Attributes: Technical

Components: LAI: Integrated Laboratory, LEI: Integrated Lecture

EMS 120 (4 credit hours)

Seminar in Advanced Emergency Medical Technician - AEMT

Functions as part of a comprehensive EMS response, community, health, or public safety system with medical oversight and is an important link from the scene into the healthcare system. Prepares students to perform interventions with the basic and advanced equipment typically found on an ambulance, including performance of focused advanced skills and pharmacological interventions that are engineered to mitigate specific life-threatening conditions, medical, and psychological conditions. Focuses on a targeted set of skills beyond the level of the EMT. Lecture: 4 credit hours (60 contact hours).

Pre-requisite: EMS 105 or FIR 230 or current unrestricted certification or validated National Registry status as EMT eligible and concurrent enrollment in EMS 121.

Co-requisite: EMS 121.

Attributes: Technical

Components: LEC: Lecture

EMS 121 (2 credit hours)

Advanced Emergency Medical Technician (AEMT) Laboratory Skills

Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental and advanced skill sets such as patient assessment, airway and ventilatory maintenance, IV/IO access and fluid administration, medication administration, medical, cardiovascular and trauma patient management across the lifespan. Pre-Requisite or Laboratory: 2 credit hours (90 contact hours).

Co-requisite: EMS 120.

Attributes: Technical

Components: LAB: Laboratory

EMS 125 (3 credit hours)

Advanced EMT Clinical Experience

Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Requires supervision by a Registered Nurse, Nurse Practitioner, Physician, or Paramedic Preceptor in an environment that represents both an instructional and evaluative phase of the Advanced Emergency Medical Technician (AEMT) curriculum with a focus on the emergency department and respiratory care. Clinical: 3 credit hours (135 contact hours).

Pre-requisite: Successful completion of EMS 120 and EMS 121.

Attributes: Technical

Components: CLN: Clinical

EMS 130 (3 credit hours)

Advanced Emergency Medical Technician (AEMT) Field Experience

Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being a team member and team leader delivering advanced patient care in the field setting. Requires supervision by a Paramedic preceptor in an environment that represents both an instructional phase and evaluative phase of the Advanced Emergency Medical Technician (AEMT) program. Laboratory: 1 credit hour (45 contact hours). Practicum: 2 credit hours (180 contact hours).

Pre-requisite: Successful completion of EMS 120, EMS 121, and EMS 125.

Attributes: Technical

Components: LAB: Laboratory, PCM: Practicum

EMS 150 (5 credit hours)

Electrocardiogram Technology

Designed for students wanting to work in doctor's offices, hospitals, cardiac clinics, or anywhere electrocardiograms need to be performed. Integrates comprehensive knowledge of the anatomy of the heart including conduction pathways, circulatory system, and mechanical function. Presents the medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead interpretation. Lecture: 3.0 credits (45 contact hours). Lab: 1.0 credit (45 contact hours). Clinical: 1.0 credit (45 contact hours).

Pre-requisite: Reading, English, and Mathematics assessment exam scores above KCTCS developmental level or successful completion of the prescribed developmental courses.

Attributes: Technical

Components: CLN: Clinical, LAB: Laboratory, LEC: Lecture

EMS 200 (4 credit hours)

Introduction to Paramedicine

Integrates comprehensive knowledge of EMS Systems including: safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, anatomy and physiology, critical thinking, and physical assessment and research to improve the health and well-being of individuals. AHS 115 or CLA 131 Or Consent of Instructor. BIO 135 Or Consent of Instructor. Lecture: 4.0 credits (60 contact hours).

Pre-requisite: EMS 105 or FRS 2061 or current unrestricted state certification or validated National Registry status as EMT eligible and Program Admission.

Co-requisite: EMS 211.

Attributes: Technical

Components: LEC: Lecture

EMS 201 (6 credit hours)**Principles of Paramedicine I**

Incorporates aspects of EMS Systems, safety and wellness, communications, medical/legal issues, life span parameters, public health, medical terminology, pathophysiology, physical assessment, and research. Introduces students to the paramedics role and responsibilities of medication administration and the basic principles of pharmacology. Lecture: 6 credit hours (90 contact hours).

Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible, and Program Admission OR consent of instructor.

Attributes: Technical

Components: LEC: Lecture

EMS 202 (5 credit hours)**Principles of Paramedicine II**

Incorporates all aspects of medical emergencies including anatomy, physiology, and pathophysiologies. Covers medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, eyes, ears, nose, throat, immunology, infectious diseases, the endocrine system, psychiatric conditions, toxicology, and hematology. Lecture: 5 contact hours (75 contact hours).

Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible and Program Admission OR consent of instructor.

Attributes: Technical

Components: LEC: Lecture

EMS 203 (1 credit hours)**Practicum I-Clinical**

Applies didactic and skills knowledge to the patient care in a hospital. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that includes an instructional and evaluative phase. EMS 203 Practicum I and EMS 206 Practicum II are interchangeable with the second course building on the first course. Clinical 1 credit hour (45 contact hours).

Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible and Program Admission OR consent of instructor.

Attributes: Technical

Components: CLN: Clinical

EMS 204 (2 credit hours)**Paramedic Lab I**

Provides fundamental skills in a lab setting. Apply skills to simulated patients. Covers a multitude of skills, including assessment and airway. Labs are interchangeable between EMS 204 Paramedic Lab I, EMS 207 Paramedic Lab II, and EMS 210 Paramedic Lab III and builds on knowledge of the previous. Laboratory: 2 credit hours (60 contact hours).

Pre-requisite: FRS 2061, EMS 105, unrestricted certification or validated National Registry status as EMT eligible and Program Admission OR consent of instructor.

Attributes: Technical

Components: LAB: Laboratory

EMS 205 (6 credit hours)**Principles of Paramedicine III**

Includes a study of cardiovascular emergencies, anatomy and physiology, pathophysiology, cardiac interventions, arrhythmia recognition, and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Provides knowledge to assess and manage sick patients across the human life span including obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Lecture: 6 credits (90 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Attributes: Technical

Components: LEC: Lecture

EMS 206 (3 credit hours)**Practicum II-Clinical**

Applies didactic and skills knowledge to the patient care in a hospital. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that includes an instructional and evaluative phase. EMS 203 Practicum I and EMS 206 Practicum II are interchangeable with the second course building on the first course. Clinical: 3 credits (135 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Attributes: Technical

Components: CLN: Clinical

EMS 207 (1 credit hours)**Paramedic Lab II**

Provides fundamental skills in a lab setting. Students are able to apply skills to simulated patients. A multitude of skills are covered including assessment and airway. Labs are interchangeable between EMS 204 Paramedic Lab I, EMS 207 Paramedic Lab II, and EMS 209 Paramedic Lab III and builds on knowledge of the previous.

Pre-requisite: Emergency Medical Technician or consent of instructor
Laboratory: 1 credit (30 contact hours).

Attributes: Technical

Components: LAB: Laboratory

EMS 208 (6 credit hours)**Principles of Paramedicine IV**

Provides concepts for of out-of-hospital assessment, treatment, and field management of the trauma patient. Includes knowledge to manage disasters, multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism. Lecture: 6 credits (90 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Attributes: Course Also Offered in Modules, Technical

Components: LEC: Lecture

EMS 209 (2 credit hours)**Paramedic Lab III**

Provides fundamental skills in a lab setting. Student are able to apply skills to simulated patients. A multitude of skills are covered including assessment and airway. Labs are interchangeable between EMS 204 Paramedic Lab I, EMS 207 Paramedic Lab II, and EMS 209 Paramedic Lab III and builds on knowledge of the previous. Lab: 2 credits (60 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Attributes: Technical

Components: LAB: Laboratory

EMS 210 (3 credit hours)**Emergency Pharmacology**

Introduces students to the paramedic's role and responsibilities of medication administration and the basic principles of pharmacology. Presents introductory core concepts of pharmacology including drug regulations, classifications, schedules, categories, delivery systems, calculations, and drug administration. Covers core concepts of emergency clinical pharmacology including major body systems, illness and injury, and methods drugs are used therapeutically to manage affected individuals. Integrates appropriate anatomy and physiology, medical terminology, and ethical and legal behaviors. Lecture: 3.0 credits (45 contact hours).

Pre-requisite: EMS 200.

Attributes: Technical

Components: LEC: Lecture

EMS 211 (2 credit hours)**Fundamentals Lab**

Encourages both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets such as patient assessment, airway and ventilation, and IV and fluid therapy. Lab: 2.0 credits (90 contact hours).

Co-requisite: EMS 200.

Attributes: Technical

Components: LAB: Laboratory

EMS 212 (4 credit hours)**Practicum III-Field**

Applies advanced didactic knowledge, psychomotor skills, and clinical instruction in the EMS field setting. Supervised by a paramedic preceptor in an environment that is instructional and evaluative. Practicum: 4 credits (360 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Attributes: Technical

Components: PCM: Practicum

EMS 213 (2 credit hours)**Principles of Paramedicine V**

Provides the opportunity for application and review of didactic knowledge and psychomotor skills in preparation for psychomotor and cognitive testing. Lecture: 2 credits (30 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Attributes: Technical

Components: LEC: Lecture

EMS 215 (1 credit hours)**Clinical Experience I**

Applies didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital and field setting. Includes supervision by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the ambulance and field setting and the emergency department. Clinical: 1.0 credit (60 contact hours).

Pre-requisite: EMS 211.

Attributes: Technical

Components: CLN: Clinical

EMS 220 (3 credit hours)**Cardiovascular Emergencies**

Provides a detailed study of cardiovascular emergencies and the assessment and management of patients requiring critical intervention. Includes anatomy and physiology, medical terminology, pathophysiology related to cardiac crisis, arrhythmia recognition and 12-lead ECG for field diagnosis, as well as pharmacological and electrical interventions. Lecture: 3.0 credits (45 contact hours).

Pre-requisite: EMS 210 and EMS 211.

Co-requisite: EMS 221.

Attributes: Technical

Components: LEC: Lecture

EMS 221 (1 credit hours)**Cardiac and Trauma Lab**

Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets and the addition of cardiovascular and trauma emergency patient care and management. Lab: 1.0 credit (45 contact hours).

Co-requisite: EMS 220 and EMS 230.

Attributes: Technical

Components: LAB: Laboratory

EMS 225 (1 credit hours)**Clinical Experience II**

Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program with a focus on the emergency department, operating room, and respiratory care. Clinical: 1.0 credit (60 contact hours).

Pre-requisite: EMS 215.

Attributes: Technical

Components: CLN: Clinical

EMS 230 (4 credit hours)**Traumatic Emergencies**

Presents the advanced concepts of out-of-hospital trauma care and critical thinking activities leading to formulation of a field impression and implementation of an appropriate treatment plan and scene management. Includes the kinematics of trauma, assessment, resuscitation, management, monitoring, and transportation of trauma patients across the life span. Lecture: 4.0 credits (60 contact hours).

Co-requisite: EMS 221.

Attributes: Technical

Components: LEC: Lecture

EMS 231 (1 credit hours)**Medical Lab**

Designed to encourage both an individual and group approach to simulated patient care in the laboratory setting. Includes fundamental skill sets with a focus on application to medical emergencies. Lab: 1.0 credit (45 contact hours).

Co-requisite: EMS 240 and EMS 250.

Attributes: Technical

Components: LAB: Laboratory

EMS 235 (2 credit hours)**Clinical Experience III**

Provides the opportunity for application of didactic knowledge, psychomotor skills, and laboratory instruction with the realities of patient care in the hospital setting. Supervised by a registered nurse, nurse practitioner, physician, or paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program focusing on the emergency department, obstetric unit, mental health facility, and pediatric units. Clinical: 2.0 credits (120 contact hours).

Pre-requisite: EMS 225.

Attributes: Technical

Components: CLN: Clinical

EMS 240 (3 credit hours)**Medical Emergencies I**

Provides an understanding of the anatomic structures, physiology, and pathophysiology encountered during assessment and the provision of care for medical emergencies involving the respiratory system, nervous system, abdominal and gastrointestinal tracts, genitourinary and renal systems, gynecology, musculoskeletal system, and the eyes, ears, nose, and throat. Lecture: 3.0 credits (45 contact hours).

Co-requisite: EMS 231.

Attributes: Technical

Components: LEC: Lecture

EMS 250 (3 credit hours)**Medical Emergencies II**

Provides an understanding of the anatomic structures, physiology, and pathophysiologies encountered during assessment and the provision of care for medical emergencies encompassing immunology, infectious disease including HIV/AIDS, the endocrine system, psychiatric conditions, toxicology, and hematology. Lecture: 3.0 credits (45 contact hours).

Pre-requisite: EMS 240.

Attributes: Technical

Components: LEC: Lecture

EMS 260 (3 credit hours)**Special Populations**

Provides the opportunity to develop special knowledge and skills necessary to assess and manage ill and or injured patients across the human life span. Focuses on the acquisition of clinical knowledge and skills in diverse populations that include obstetrics, neonatology, pediatrics, geriatrics, and special challenge topics. Lecture: 3.0 credits (45 contact hours).

Pre-requisite: EMS 250.

Attributes: Technical

Components: LEC: Lecture

EMS 270 (1 credit hours)**EMS Operations**

Provides knowledge necessary to safely manage multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism and disaster. Lecture: 1.0 credits (15 contact hours).

Attributes: Technical

Components: LEC: Lecture

EMS 275 (1 credit hours)**Seminar in Advanced Life Support (ALS)**

Presents a comprehensive course encompassing advanced cardiac life support and pediatric advanced life support, or trauma life support, or other seminar course in relative subject matter such as medical emergencies or geriatric emergencies, to enhance the knowledge and skills acquired in the paramedic program. Addresses immediate life threatening conditions and critical interventions in a case study-scenario format where principles of assessment and intervention are applied in a team setting. Lab: 1.0 credit (45 contact hours).

Pre-requisite: EMS 225.

Attributes: Technical

Components: LAB: Laboratory

EMS 285 (5-6 credit hours)**Field Internship & Summation**

Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Lab: 1.0 credit (45 contact hours). Practicum: 4.0 - 5.0 credits (360- 450 contact hours).

Pre- or co-requisite: EMS 275.

Attributes: Technical

Components: LAB: Laboratory, PCM: Practicum

EMS 2081 (4 credit hours)**Principles of Paramedicine IV Part I**

Provides concepts for of out-of-hospital assessment, treatment, and field management of the trauma patient. Because EMS 2081 and EMS 2082 are interchangeable, this course can be taken before or after EMS2082. Lecture: 4 credits (60 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Components: LEC: Lecture

EMS 2082 (2 credit hours)**Principles of Paramedicine IV Part 2**

Provides concepts for managing disasters, multi-casualty incidents and rescue situations, utilize air medical resources, identify hazardous materials, perform vehicle extrication, and minimize the associated risks related to terrorism. Because EMS 2081 and EMS 2082 are interchangeable, this course can be taken before or after EMS2081. Lecture: 2 credits (30 contact hours).

Pre-requisite: Emergency Medical Technician or consent of instructor.

Components: LEC: Lecture

EMS 2851 (3 credit hours)**Field Internship I**

Provides the opportunity for application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting. Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Practicum: 3.0 credits (270 contact hours).

Co-requisite: EMS 275.

Components: PCM: Practicum

EMS 2852 (2-3 credit hours)**Field Internship II**

Provides the opportunity for continued application of didactic knowledge, psychomotor skills, and clinical instruction with the realities of being the team leader delivering advanced patient care in the field setting.

Supervised by a paramedic preceptor in an environment that represents both an instructional and evaluative phase of the program. Included is the summative phase of the Field Internship. Pre-requisite OR Laboratory: 1.0 credit (45 contact hours). Practicum 2.0 credits (180 contact hours).

Co-requisite: EMS 2851.

Components: LAB: Laboratory, PCM: Practicum