



Emergency Medical Services (EMS)

Program Information

A career in Emergency Medical Services is one that is certain to be rewarding and exciting. The satisfaction in the knowledge that you saved a life or made a difference in the outcome of a patient has no equal. The gratification felt while performing in an emergency situation is difficult to duplicate in any other type of career.

The Emergency Medical Services program at Trenholm State prepares students to become licensed Emergency Medical Technicians, Advanced Emergency Medical Technicians and Paramedics. Students are trained to deliver the pre-hospital care and transportation necessary for victims of accidents and persons experiencing medical emergencies. Students are provided instruction in the classroom, laboratory, and clinical settings.

Occupational Choices

A licensed Emergency Medical Services Provider may expect employment in a variety of both pre-hospital and other healthcare settings. Jobs are expected to grow by 24 percent from 2014 to 2024, much faster than the average for all occupations.

U.S. Department of Labor Bureau of Labor Statistics, Occupational Outlook Handbook, 2016-2017; Survey: 2015
(<http://www.bls.gov/oooh/healthcare/emts-and-paramedics.htm>)

Average Full-Time Wage

Earnings of Emergency Medical Services Providers depend on the employment setting and geographic location of their jobs, as well as their training and experience. The average full-time annual wage for Emergency Medical Services Providers are noted below:

Nationwide: \$20,180 - \$55,110

Statewide: \$18,150 - \$44,490

Montgomery Metro Area: \$18,320 - \$37,280

Source: U.S. Department of Labor Bureau of Labor Statistics, May 2015 (<http://www.bls.gov/oes/current/oes292041.htm>)
Statewide and Montgomery Metro Area - (http://data.bls.gov/oes/search.jsp?data_tool=OES3)

Admission Criteria

EMT requires:

- Unconditional admission to the College.
- High school diploma or GED equivalent.
- 2.0 cumulative grade point average (GPA)
- Transcripts from high school and all post-secondary institutions attended.
- Acceptable ACCUPLACER or ACT/SAT scores. Required ACCUPLACER score: Elementary Algebra - 40 or Arithmetic - 70; Reading - 70, and Writing - 5. In lieu of ACCUPLACER, an ACT score of 20 on English and Math sections or an SAT score of 650 may be used.
- At least 18 years of age or will be 18 at time of course completion.
- Candidates must be able to meet all technical standards required of the program (see essential functions form for full details):
 - o Sensory, auditory, tactile and olfactory sensory perception
 - o Communication/Interpersonal Relations
 - o Cognitive and critical thinking
 - o Motor function
 - o Professional Behavior
- Students in the Emergency Medical Services Program must meet the following requirements (completed at the student's expense) prior to and throughout enrollment in the program:
 - a) Verify absence of the use of drugs and alcohol by participation in random and scheduled drug/alcohol testing at the student's expense.
 - b) Undergo a criminal background screening.
 - c) Provide proof of all vaccinations designated by the program, and if needed, obtain required vaccinations or provide documentation of immunity.
 - d) Tuberculin skin test within the past 12 months and annually thereafter while enrolled
 - e) Purchase liability insurance through the college.
 - f) Undergo a student physical examination administered by a physician, nurse practitioner, or physician assistant prior to beginning clinical activities and annually while enrolled.

Estimated Program Length & Cost *

<u>Award</u>	<u>Length</u>	<u>Credit Hours</u>	<u>Tuition Fees</u>	<u>Books</u>	<u>Tools</u>	<u>Supplies</u>
Associate Degree **	6 Terms	71	\$10,153	\$1300	\$100	\$100
Short Term Certificate	1 Term	11	\$1,573	\$225	\$100	\$100
Short Term Certificate(Adv)	1 Term	13	\$1,859	\$250	\$100	\$100

* Tax not included. Prices are subject to change without prior notice; cost of books may vary considerably among suppliers. The length of the program is based on full-time status of 12-15 credit hours per term. Enrollment in transitional level general education courses will alter the length of the program. **The Associate Degree program includes the Short Term EMT and the Advanced EMT Certificate.

- Applicant must be able to read, speak and understand the English language.
- Current valid driver's license.
- Meet all general admission requirements for the College

Advanced EMT requires:

- Must meet all EMT admission requirements.
- Must have a current CPR certification for health care provider.
- Must have State of Alabama EMT license.
- Must have completed BIO-201 prior to beginning AEMT courses and must take BIO-202 during AEMT courses

Paramedic level requires:

- Completion of items listed above for EMT and AEMT level admission requirements.
- Completion of ENG-101, MTH-116, PSY-200, BIO-201 and BIO-202 with a minimum grade of "C" prior to entering the Paramedic level.
- A current Advanced EMT Alabama license prior to the second semester of Paramedic courses.
- Completion of all general education courses as noted in degree plan prior to graduation

Progression Requirements

Progression through the program requires:

1. A 2.0 cumulative GPA.
2. Minimum grade of "B" in all EMS courses.
3. Fulfillment of all course prerequisites.
4. A satisfactory level of mental and physical health including maintaining current immunizations, Hepatitis B vaccinations (or signed waiver), annual TB testing, and ability to meet the Essential Functions.
5. Current malpractice insurance.
6. Current CPR certification at the Health Care Provider or Professional Rescuer level.
7. Completion of all general education courses noted in degree plan prior to testing National Registry. If general education courses are completed at another institution, the courses must be accepted by Trenholm State.
8. Completion of ENG-101, MTH-116, PSY-200, BIO-201 and BIO-202 with a minimum grade of "C" prior to entering the Paramedic level.
9. No more than a 12-month interruption in matriculation through the Paramedic level course sequence.

Students who do not meet progression requirements may be required to withdraw from the program and apply for readmission

Readmission Requirements

Students who interrupt the specified progression through the program of study must apply for readmission to the program. Readmission requires:

1. A 2.0 cumulative GPA. If a student's GPA is less than 2.0, he/she will not be allowed to be readmitted into EMS courses. The student will need to take

additional general education courses and elevate their GPA to the required level.

2. Ability to meet and comply with standards and policies in the current College Catalog and Student Handbook.
3. No more than a 12-month interruption in matriculation through the Paramedic level course sequence. Students who are currently licensed at the EMT level, will be readmitted at the AEMT level. Whereas, students who are currently licensed at the AEMT level, will be readmitted at the P-1 level.
4. Students who desire readmission to the program due to multiple failures of the NREMT exam will be required to meet with the Program Coordinator (prior to readmission) and develop a course study plan. These students will also be expected to periodically meet with the Program Coordinator and Medical Director to ensure appropriate course progression is being achieved. Typically, these students are readmitted into the program in accordance with requirements noted in number 3 above.

All students who withdraw from or are temporarily ineligible to progress through a program of study in the Allied Health Division will be readmitted under the College Catalog in effect during the year of readmission.

Awards Available

Associate in Applied Science Degree
Emergency Medical Services
Paramedic

Short Term Certificate
Emergency Medical Services
EMT Concentration
Advanced EMT Concentration

Program Contact

Danny Perry
Program Coordinator/Instructor
334-420-4323
Location: Trenholm Campus - Bldg. E

As part of ongoing planning and evaluation, the College regularly evaluates student learning outcomes for each program.

Associate in Applied Science Degree Emergency Medical Services Paramedic

(Students must complete the EMT and Advanced EMT before advancing to Paramedic curriculum)

Required Technical Courses (47 credit hours)

Course	Title	Hrs
EMS-118*	Emergency Medical Technician	9
EMS-119*	EMT Clinical	1
EMS-155**	Advanced EMT	7
EMS-156**	Adv Emergency Medical Technician Clinical	2
EMS-241	Paramedic Cardiology	3
EMS-242	Paramedic Patient Assessment	2
EMS-244	Paramedic Clinical I	1
EMS-245	Paramedic Medical Emergencies	3
EMS-246	Paramedic Trauma Management	3
EMS-247	Paramedic Special Populations	2
EMS-248	Paramedic Clinical II	3
EMS-253	Paramedic Transition to the Wkfrc	2
EMS-254	Adv Competencies for Paramedic	2
EMS-255	Paramedic Field Preceptorship	5
EMS-257	Paramedic Applied Pharmacology	2

Electives:

EMS-107	Emergency Vehicle Operator Ambulance	1
CIS-146	Microcomputer Applications	3

* First semester is EMT.

**Third semester is Advanced EMT. Both are required before entering the Paramedic curriculum.

Note: Students are also required to meet the College computer literacy requirements.

Required General Education (24 credit hours)

Course	Title	Hrs
BIO-201	Anatomy and Physiology I	4
BIO-202	Anatomy and Physiology II	4
ENG-101	English Composition I	3
MTH-116	Mathematical Applications	3
MUS-101	Music Appreciation	3
	or PHL-210 Ethics and Health Sciences	
ORI-101	Orientation to College	1
PSY-200	General Psychology	3
SPH-106	Fund of Oral Communication	3
	or ENG-102 English Composition II	

Total Hours: 71 Credit Hours; 1,710 Contact Hours

Short Term Certificate Emergency Medical Services EMT Concentration

(This award is not Pell Grant Eligible)

(Students must complete EMT before advancing to Advanced EMT)

Required Technical Courses (10 credit hours)

Course	Title	Hrs
EMS-118	Emergency Medical Technician	9
EMS-119	Emergency Medical Technician Clinical	1
Electives:		
EMS-107	Emergency Vehicle Operator Ambulance	1

Required General Education (1 credit hours)

ORI-101	Orientation to College	1
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Total Hours: 11 Credit Hours; 240 Contact Hours

Short Term Certificate Emergency Medical Services Advanced EMT Concentration

(This award is not Pell Grant Eligible)

(Students must complete the Advanced EMT before advancing to Paramedic curriculum)

Required Technical Courses (9 credit hours)

Course	Title	Hrs
EMS-155	Adv Emergency Medical Technician	7
EMS-156	Adv Emergency Medical Technician Clinical	2

Required General Education (4 credit hours)

BIO-202*	Anatomy and Physiology II	4
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*BIO-201 is a pre-requisite to BIO-202 and must be completed prior to admission to Advanced EMT

Total Hours: 13 Credit Hours; 336 Contact Hours

Course Descriptions for Emergency Medical Services (EMS)

Course #	Course Title	Theory Contact Hours/Wk	Lab Contact Hours/Wk	Credit Hours
EMS-107	EMERGENCY VEHICLE OPERATOR AMBULANCE	1	0	1
PREREQUISITE: None				
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-118	EMS BASIC THEORY AND LAB	6	6	9
PREREQUISITE: None				
This course is required to apply for certification as an Emergency Medical Technician. 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, management of trauma patients, management of medical patients, treating infants and children, and various EMS operations. This course is based on the NHTSA National Emergency Medical Services Education Standards				
EMS-119	EMS BASIC CLINICAL COMPETENCIES	0	3	1
PREREQUISITE: None				
This course is required to apply for certification as an EMS. This course provides students with clinical education experiences to enhance knowledge and skills learned in the EMS 118, Emergency Medical Technician Theory and Lab. This course helps students prepare for the National Registry Exam				
EMS-155	ADVANCED EMERGENCY MEDICAL TECHNICIAN	3	9	6
PREREQUISITE: Completion of the EMT curriculum, current licensure as an EMT and completion of BIO-201				
COREQUISITE: EMS-156 and BIO-202				
This course is required to apply for certification as an Advanced Emergency Medical Technician (AEMT). This course introduces the theory and application of concepts related to the profession of the AEMT. The primary focus of the AEMT is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Topics include: extending the knowledge of the EMT to a more complex breadth and depth, intravenous access and fluid therapy, medication administration, blind insertion airway devices, as well as the advanced assessment and management of various medical illnesses and traumatic injuries. This course is based on the NHTSA National Emergency Medical Services Education Standards. Requires licensure or eligibility for licensure at the EMT level and EMS 156 must be taken as a co-requisite.				
EMS-156	ADVANCED EMERGENCY MEDICAL TECHNICIAN CLINICAL	0	6	2
PREREQUISITE: Completion of the EMT curriculum, current licensure as an EMT and completion of BIO-201				
COREQUISITE: EMS-155 and BIO-202				
This course is required to apply for certification as an Advanced Emergency Medical Technician (AEMT). This course provides students with clinical education experiences to enhance knowledge and skills learned in EMS 155. This course helps prepare students for the National Registry AEMT Exam. The student will have the opportunity to use the basic and advanced skills of the AEMT in the clinical and field settings under the direct supervision of licensed healthcare professionals. Requires licensure or eligibility for licensure at the EMT level and EMS 155 must be taken as a co-requisite.				

Theory

Lab

Course #	Course Title	Contact Hours/Wk	Contact Hours/Wk	Credit Hours
EMS-240	PARAMEDIC OPERATIONS	1	2	2
PREREQUISITE: Completion of Advanced EMT or Licensure as an Advanced EMT				
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: research, paramedic roles and responsibilities, well-being of the paramedic, illness and injury prevention, medical-legal-ethical issues, therapeutic communications, medical terminology, life span development, ambulance operations, medical incident command, rescue awareness and operations, hazardous materials incidents, crime scene awareness, and Alabama EMS laws and rules.				
EMS-241	PARAMEDIC CARDIOLOGY	2	3	3
PREREQUISITE: Completion of Advanced EMT or Licensure as an Advanced EMT				
This course introduces the cardiovascular system, cardiovascular electrophysiology, and electrocardiographic monitoring. This course further relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for specific cardiovascular conditions. Content areas include: cardiovascular anatomy and physiology, cardiovascular electrophysiology, electrocardiographic monitoring, rhythm analysis, pre-hospital 12-lead electrocardiogram monitoring and interpretation, assessment of the cardiovascular patient, pathophysiology of cardiovascular disease and techniques of management including appropriate pharmacologic agents and electrical therapy.				
EMS-242	PARAMEDIC PATIENT ASSESSMENT	1	3	2
PREREQUISITE: Completion of Advanced EMT or Licensure as an Advanced EMT				
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.				
EMS-244	PARAMEDIC CLINICAL I	0	3	1
PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, and EMS-257				
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 and management, advanced airway management, electro-therapy, I.V. /I.O. initiation and medication administration.				
EMS-245	PARAMEDIC MEDICAL EMERGENCIES	2	2	3
PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, and EMS-257				
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.				
EMS-246	PARAMEDIC TRAUMA MANAGEMENT	2	2	3
PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, and EMS-257				
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.				
EMS-247	PARAMEDIC SPECIAL POPULATIONS	1	2	2
PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, and EMS-257				
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.				

Theory

Lab

Course #	Course Title	Contact Hours/Wk	Contact Hours/Wk	Credit Hours
EMS-248	PARAMEDIC CLINICAL II	0	9	3
	PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, and EMS-257			
	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 and trauma situations across the life span of the patient, with a focus on communication with and management of trauma, cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges.			
EMS-253	PARAMEDIC TRANSITION TO THE WORKFORCE	1	2	2
	PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, EMS-244, EMS-245, EMS-246, EMS-247, EMS-248, AND EMS-257			
	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.			
EMS-254	ADVANCED COMPETENCIES FOR PARAMEDIC	1	2	2
	PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, EMS-244, EMS-245, EMS-246, EMS-247, EMS-248, AND EMS-257			
	This course is designed 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, and/or computer simulation and practice testing. Upon course completion, students should be sufficiently prepared to sit for the paramedic licensure examination.			
EMS-255	PARAMEDIC FIELD PRECEPTORS	0	15	5
	PREREQUISITE: Licensure as an Advanced EMT; Completion of EMS-241, EMS-242, EMS-243, EMS-244, EMS-245, EMS-246, EMS-247, EMS-248, AND EMS-257			
	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.			
EMS-257	PARAMEDIC APPLIED PHARMACOLOGY	1	3	2
	PREREQUISITE: Completion of Advanced EMT or Licensure as an Advanced EMT			
	This course introduces basic pharmacological agents and concepts with an emphasis on drug classifications and the knowledge and skills required of a paramedic 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; pharmacokinetics and pharmacodynamics, and nasogastric tube placement.			