

EMT-Basic (EMSP 1501)



Credit: 5 semester credit hours (4 hours lecture, 4 hours lab)

Prerequisite/Co-requisite: Passed the Work keys reading exam with a 5 or greater or the writing portion of COMPASS or other accepted testing instrument.

Course Description

Preparation for certification as an Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services.

Required Textbook and Materials

1. Jones and Bartlett, Care and Transportation of the Sick and Injured, 9th edition, ISBN number is ISBN: 9780763781705
2. JBTest Prep: EMT-Basic Success, ISBN: 9780763757830

Course Objectives¹

Upon completion of this course, the student will be able to:

1. Demonstrate a working knowledge of clinical information and related topics relevant to the practice of pre-hospital emergency medical care of the EMT-Basic level: (SCANS: F1.5, F2.3, F3.2, F4.1, F5.5, F6.5, F8.5, F9.5, F12.5, C1.4, C4.3)
2. Demonstrate the ability to complete perform all EMT-Basic skills. (SCANS: F5.5, C3.4, C5.5, C6.5, C7.5, C8.3, C10.4, C19.5, C20.5)
3. Exhibit attitudes and behavior consistent with the ethics and professionalism expected of the EMT-Basic (SCANS: F13.5, F14.5, F 15.5, F 16.5, F17.5, C9.5, C11.5, C12.5, C13.5, C14.5)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools*. In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

¹ Curriculum based on Department of Transportation National Standard Curriculum.

Course Outline

- A. Welcome to LIT EMS Program
 - 1. Introduction of EMS Staff, Instructors and students
 - 2. EMS program policies
 - 3. Familiarization to EMS Equipment
- B. Introduction to EMS
 - 1. EMTs roles and responsibilities to pre-hospital care
 - 2. Medical, Legal and Ethical Issues in EMS
- C. The Human Body
 - 1. Major human body systems (anatomy and physiology)
- D. Baseline Vital Signs and SAMPLE History
 - 1. Obtaining a Respiratory Rate
 - 2. Obtaining a Pulse
 - 3. Obtaining a Blood Pressure
 - 4. Interviewing the patient through the SAMPLE mnemonic
- E. Lifting and Moving Patients
 - 1. Utilizing the patient moving devices (Gurney, Stair Chair, Backboard devices)
 - 2. Urgent vs. Non Urgent Moves.
 - 3. Lifting techniques.
- F. Airway Management
 - 1. Respiratory emergency: signs, symptoms and treatment
 - 2. Administration of Oxygen through common EMS airway devices.
 - 3. Use of OPA, NPA and Suctioning devices.
 - 4. Signs, Symptoms and Treatment of an obstructed airway
- G. Patient Assessment
 - 1. Conscious Medical Patient
 - 2. Unconscious Medical Patient
 - 3. Isolated Trauma Patient
 - 4. Serious Trauma Patient
- H. Communication and Documentation
 - 1. Legal issues in patient care reports.
 - 2. Radio communications.
 - 3. Communication skills with patients and family.
 - 4. Communication skills with hospital staff.
- I. Pharmacology for the EMT-Basic
 - 1. General principles of Pharmacology
 - 2. Albuterol administration (routes, dosage, indications, contraindications, etc.)
 - 3. Epinephrine administration (routes, dosage, indications, contraindications, etc.)
 - 4. Nitroglycerin administration (route, dosage, indications, contraindications, etc.)
 - 5. Glucose administration (route, dosage, indications, contraindications, etc.)
 - 6. Charcoal administration (route, dosage, indications, contraindications, etc.)
- J. Respiratory Emergencies
 - 1. Anatomy and Physiology of the Respiratory System
 - 2. Identification of different lung sounds
 - 3. Signs, Symptoms and Treatment of different Respiratory emergencies.

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4. Scenario practice with respiratory emergencies
- K. Cardiovascular Emergencies
 1. Anatomy and Physiology of the Heart
 2. Characteristics of arteries, veins, capillaries.
 3. Signs and Symptoms and treatment of Angina vs. a Myocardial Infarction
 4. Signs and Symptoms and Treatment of congestive heart failure
 5. Administration of CPR and AED
 6. Scenario practice with cardiac emergencies
- L. Neurologic Emergencies
 1. Anatomy and Physiology of the Central Nervous System.
 2. Signs, Symptoms and Treatment of a Cerebral Vascular Accident.
 3. Signs, Symptoms and Treatment of Generalized Seizures.
 4. Signs, Symptoms and Treatment of a Transient Ischemic Attack.
 5. Scenario practice with stroke emergencies
- M. Abdominal Emergencies
 1. Anatomy of the Abdominal Cavity (solid organs vs. hollow organs)
 2. Signs, Symptoms and Treatment of medical abdominal emergencies.
 3. Scenario practice with abdominal emergencies.
- N. Diabetic Emergencies
 1. Signs, Symptoms and Treatment of a hypoglycemic patient vs. a hyperglycemic patient.
 2. Signs, Symptoms and Treatment of Diabetic Seizures.
 3. Scenario practice with diabetic emergencies.
- O. Allergic Reactions, poison and environmental emergencies
 1. Signs, Symptoms and Treatment of Allergic Reactions.
 2. Signs, Symptoms and Treatment of Drug Overdoses
 3. Signs, Symptoms and Treatment of Poison Emergencies
 4. Utilization of Texas Poison Control Network
 5. Administration of the Epi Autoinjector
 6. Administration of Instant Charcoal
 7. Scenario Practice with allergic reaction and poison emergencies.
- P. Behavioral Emergencies
 1. Different types of Behavioral Emergencies
 2. Managing a patient that has attempted suicide.
 3. Safety considerations with a patient experiencing a behavioral emergency.
 4. Scenario Practice with Behavioral Emergencies.
- Q. Obstetric and Gynecologic Emergencies
 1. Recognizing with childbirth is imminent.
 2. Managing childbirth.
 3. Signs, Symptoms and treatment of various complications during and post partum delivery
 4. Managing the neonate.
 5. Managing the post partum mother.
 6. Scenario practice with child birth.
- R. Kinematics of Trauma
 1. Evaluating the Mechanism of Injury

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2. The Golden Hour
3. Motor Vehicle Impacts
4. Ejection of patients
5. Gunshot wounds (Cavitation)
6. Explosions
- S. Bleeding and Shock
 1. Recognition of signs, symptoms and treatment of internal bleeding.
 2. Recognition of signs, symptoms and treatment of severe external blood loss.
 3. Causes of different types of shock
 4. Signs and Symptoms and treatment of the three stages of hypovolemic shock
 5. Indications, contraindications and utilization of MAST Trousers
- T. Soft Tissue Injuries
 1. Recognition of the various types of soft tissue injuries.
 2. Bandaging techniques
- U. Head, Face and Neck Injuries
 1. Recognition of dangers of injuries to the head, face and neck.
 2. Utilization of the occlusive dressing.
 3. Treatments of various eye injuries
- V. Chest Injuries
 1. Signs, Symptoms and Treatment of a Pneumothorax
 2. Signs, Symptoms and Treatment of a Hemothorax
 3. Signs, Symptoms and Treatment of Cardiac Tamponade
 4. Signs, Symptoms and Treatment of Traumatic Asphyxia
- W. Abdominal and Genitalia Injuries
 1. Signs, Symptoms and Treatment of an evisceration.
 2. Treatment of Genitalia Injuries
- X. Chest Injuries
 1. Signs, Symptoms and Treatment of a Pneumothorax
- Y. Musculoskeletal Injuries
 1. Recognition of the signs and symptoms of a fracture.
 2. Utilization of various splints for different fractures.
 3. Utilization of a Traction Splint
- Z. Spinal Injuries
 1. Signs, Symptoms and Treatment of a spinal injury
 2. Utilization of Spinal Immobilization skills.
- AA. Pediatric Emergencies
 1. Assessment of the pediatric patient in different age groups.
 2. Assessment of pediatric medical emergencies
 3. Assessment of pediatric patient response to traumatic injuries
- BB. Geriatric Emergencies
 1. Assessment of geriatric medical emergencies
 2. Assessment of geriatric patient response to traumatic injuries.
- CC. Ambulance Operations
 1. Characteristics of driving the ambulance vs. automobile
 2. Ambulance equipment inventory and maintenance.

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- DD. Hazardous Materials First Responder Training
 - 1. Using DOT response guides for reading placards.
 - 2. EMS role in hazardous material emergencies.
- EE. Rescue Operations and Gaining Access.
 - 1. EMS role in different types of rescue operations
- FF. Multi-Casualty Incidents (MCI)
 - 1. Triage
 - 2. START system.
 - 3. Practice triaging multiple patients with various injuries

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

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| 1. 3 – 4 Major Exams | 40% |
| 2. Comprehensive Final Exam | 20% |
| 3. Chapter Quizzes | 20% |
| 4. Professionalism | 20% |

Course Requirements

- 1. Accountability for all classroom hours, as required by the Texas Department of State Health Services EMS Regulator.
- 2. Pass all psychomotor skills, as required by the Texas Department of State Health Services EMS Regulator.
- 3. Maintain 75% course average, as required by the Texas Department of State Health Services EMS Regulator.
- 4. Perform the 'Library Treasure Hunt'.

Course Policies

- 1. Student must be in the proper classroom uniform (exception is prior to delivery of program T shirts.
- 2. Beepers, telephones, headphones, and any other electronic devices must be turned off while in class.
- 3. Do not bring children to class.
- 4. No makeup quizzes or major exams are accepted.
- 5. Attendance Policy. Texas Department of State Health Services Bureau of EMS makes the student accountable for all classroom hours. If you miss class then it is

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the student's responsibility to contact the instructor to see what was missed and how the hours are to be made up. This may include extra homework or outlining of chapters that were discussed. The program only allows this option to be used 4 times per the semester. After four absences then a 10 point grade reduction will be made on the final semester

6. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
7. Additional class policies as defined by the EMS Program Student handbook.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

Week	Topic	Reference
Week 1	Course introduction and policies Introduction to EMS	Ch 1 - 3
Week 2	The Human Body	Ch 4
Week 3	Vital Signs and SAMPLE History	Ch 5
Week 4	Lifting and Moving Patients, Airway	Ch 6-7
Week 5	Patient Assessment	Ch 8
Week 6	Communication and Documentation	Ch 9
Week 7	Major Exam 1, CPR Instruction	
Week 8	Skills Testing, Clinical Orientation	
Week 9	General Pharmacology, Respiratory	Ch 10-11
Week 10	Cardiac Emergencies, Neurological	Ch 12-14
Week 11	Diabetic Emergencies Major Exam 2	Ch 15-19
Week 12	OB Emergencies, Skills Testing	Ch 20
Week 13	Shock, Head, Face, Neck and Chest Trauma	Ch 21-27
Week 14	Musculoskeletal, Spinal Trauma, Major Exam	Ch 28-30
Week 15	Mass Casualty Incidents, Scenario day	Ch 31-37
Week 16	All required paperwork due, Comprehensive Final Exam	