

LAST REVIEW: 2009-10

(i.e. 2003-2004)

NEXT REVIEW: 2014-15

(i.e. 2008-2009)

STATUS: A

(A, I, D)

COURSE TITLE: Emergency Medical Technician Lecture

COMMON COURSE NUMBER: EMS 1119

CREDIT HOURS: 6

CONTACT HOUR BREAKDOWN

(per 16 week term)

CLOCK HOURS: 96

(Voc. Course ONLY)

Lecture:

Lab:

Clinic:

Other:

PREREQUISITE(S): Department Approval

COREQUISITE(S): EMS 1119L, EMS 1411, EMS 1421

PRE/COREQUISITE(S): N/A

COURSE DESCRIPTION *(750 characters, maximum):*

This course is designed to prepare the basic emergency medical technician in accord with U.S. Department of Transportation curriculum and Florida State EMS Guidelines. Includes an introductory survey of emergency medical services including medical, legal/ethical aspects, role of the EMT, CPR at the American Heart Association Basic Rescuer level, patient assessment, care of wounds and fractures, airway maintenance, medical and environmental emergencies, patient transportation, emergency childbirth, and basic extrication. Successful completion of EMS 1119, 1119L, and 1431 provide eligibility for Florida State EMT Certification Examination.

Term Offered: I, II & III/Central and North Campuses

UNIT TITLES

- 1. Orientation of the Emergency Medical Technician**
- 2. Legal Responsibilities & Medical Terminology**
- 3. General and Topographic Anatomy**
- 4. Interpretation of Diagnostic Signs and Triage**
- 5. Respiratory System**
- 6. Injuries of the Chest**
- 7. Circulatory System
(Cont.)**
- 8. Bleeding and Control of Bleeding**
- 9. Shock**
- 10. Basic Life Support**
- 11. Oxygen Therapy and Equipment**
- 12. The Integumentary System**
- 13. The Muscular system**
- 14. The Skeletal System**
- 15. Fractures and Dislocations and Sprains**

16. **General Principles of Splinting and Bandaging**
17. **Fractures and Dislocations of the Shoulder and Upper Extremity**
18. **Fractures and Dislocations of the Hip, Pelvis, and Lower Extremity**
19. **Fractures and Dislocations of the Spine**
20. **The Nervous System**
21. **Injuries of the Skull and Brain**
22. **The Eye**
23. **Injuries of the Eye, Face, and Throat**
24. **The Abdomen and Digestive System**
25. **Injuries of the Abdomen**
26. **The Acute Abdomen**
27. **Common Gastrointestinal and Genitourinary Complaints**
28. **The Genitourinary System**
29. **The Genitourinary System**
30. **Heart Attack**
31. **Stroke**
32. **Diabetes Mellitus**
33. **Dyspnea**
34. **Unconscious States**
35. **Communicable Disease**
36. **Childbirth**
37. **Pediatric Emergencies**
38. **The Disturbed and Unruly Patient**
39. **Alcohol and Drug Abuse**
40. **Heat Exposure**
41. **Cold Exposure**
42. **Radiation Exposure**
43. **Electrical Hazards**
44. **Water Hazards**
45. **Poisons, Stings, and Bites**
46. **Emergency Driving and Traffic Control at the Accident Scene.**
47. **Safety**
48. **Emergency Vehicles, Equipment, and Maintenance**
49. **Patient Handling and Extrication**
50. **Rescue**
51. **Communications**
52. **Radios and Reports**
53. **Florida State Trauma System**

EVALUATION:

Please provide a brief description (250 characters maximum) that details how students will be evaluated on the course outcomes.

Upon successful completion of this course, the students should know the basic knowledge prescribed by U.S. Department of Transportation and Florida State EMS guidelines.

*** *Complete the following only if course is seeking general education status* ***

GENERAL EDUCATION Competencies and Skills *:

Please highlight in **green** font all Competencies/Skills from the list below that apply to this course. In the box to the right of the Competency/Skill, enter all specific learning outcome numbers (i.e. 1.1, 2.7, 5.12) that apply.

1. Read with critical comprehension	
2. Speak and listen effectively	
3. Write clearly and coherently	
4. Think creatively, logically, critically, and reflectively (analyze, synthesize, apply, and evaluate)	
5. Demonstrate and apply literacy in its various forms: (highlight in green ALL that apply) (1. technological, 2. informational, 3. mathematical, 4. scientific, 5. cultural, 6. historical, 7. aesthetic and/or 8. environmental)	
6. Apply problem solving techniques to real-world experiences	
7. Apply methods of scientific inquiry	
8. Demonstrate an understanding of the physical and biological environment and how it is impacted by human beings	
9. Demonstrate an understanding of and appreciation for human diversities and commonalities	
10. Collaborate with others to achieve common goals.	
11. Research, synthesize and produce original work	
12. Practice ethical behavior	
13. Demonstrate self-direction and self motivation	
14. Assume responsibility for and understand the impact of personal behaviors on self and society	
15. Contribute to the welfare of the community	

* *General Education Competencies and Skills endorsed by '05-'06 General Education Task Force*

Common Course Number:

UNITS**Unit 1****Orientation of the Emergency Medical Technician**

General Outcome:

- 1.0 The students should know the elements of total emergency medical care and understand the importance of proper training for the EMT.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 Identify the members of the emergency medical care team.
- 1.2 Describe a proper disaster plan for a community.
- 1.3 Describe the characteristics of a properly trained EMT.
- 1.4 List the responsibilities of an EMT.
- 1.5 Classify the capabilities necessary for an EMT to assume responsibility for the sick and injured.
- 1.6 Describe the qualities of character necessary for the EMT to cope with the emotional problems of the sick and injured.
- 1.7 Describe the proper management of relatives, bystanders, and passersby, at the scene of the sick and injured.
- 1.8 Describe the correct handling of handicapped patients who are sick or injured.
- 1.9 Describe the difference between first aid and emergency medical care.
- 1.10 Identify the national organization responsible for the certification of Emergency Medical Technicians.
- 1.11 Identify the medical identification symbol.
- 1.12 Demonstrate knowledge as to the size of the local emergency ambulance service, the scope of its operation, and the standard operational procedures.
- 1.13 Demonstrate knowledge of the local emergency ambulance service rules and regulations that apply to the position of EMT-A.
- 1.14 Demonstrate assuming command of a pre-hospital medical emergency situation in the absence of a more qualified person.

Unit 2. Legal Responsibilities and Medical Terminology

General Outcome:

- 2.0 The students should know the legal responsibilities of the Emergency Medical Technician and will be able to use proper medical terminology.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 2.1 Define the legal status of someone who acts as a Good Samaritan.
- 2.2 Define implied consent.
- 2.3 Define informed consent by the emergency patient.
- 2.4 Describe the legal duty of the Emergency Medical Technician at the scene of an accident.
- 2.5 Describe the legal liability of the Emergency Medical Technician.
- 2.6 The student will identify the root and prefix/suffix when given a medical term and correctly state their meaning.
- 2.7 The student will demonstrate the correct use of a medical dictionary when given a medical term to identify.
- 2.8 The student will define the value of medical terminology in patient care.

Unit 3. General and Topographic Anatomy

General Outcome:

- 3.0 The students should know the general and topographic anatomy of the body and understand the use of general and topographic anatomy in providing emergency care.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 3.1 Name the major parts of the body.
- 3.2 Identify the bony and soft-tissue landmarks.
- 3.3 Identify the quadrants of the abdomen.
- 3.4 Describe the major organs associated with the division or landmarks in the body.
- 3.5 Describe the relationship of the parts of the body, one to the other, using topographic terminology.

- 3.6 Describe the relationship of injured structures to uninjured structures.
- 3.7 Identify the arterial pressure points.

Unit 4. Interpretation of Diagnostic Signs and Triage

General Outcome:

- 4.0 The students should be able to understand the nine diagnostic signs, know the methods of patient assessment and understand the definition of and techniques used in triage.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 List the normal diagnostic signs.
- 4.2 Identify abnormalities in diagnostic signs.
- 4.3 Describe the relationship of changes in vital signs to patient problems.
- 4.4 Describe the procedures for determining and recording diagnostic data.
- 4.5 State the importance of accuracy in measuring and recording diagnostic data.
- 4.6 Explain the importance of discriminating among various types of injuries to determine the sequence of treatment.
- 4.7 Describe the principles of triage.
- 4.8 Given specified situations, identify what injuries might be suspected from observation of the injury-producing mechanisms in addition to those injuries that are obvious.

Unit 5. Respiratory System

General Outcome:

5.0 The students should know the structures and function of the respiratory system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 5.1 Define the boundaries of the thoracic cavity.
- 5.2 Describe the contents of the thoracic cavity.
- 5.3 Name and locate the organs of the body which are involved in normal respiration.
- 5.4 Describe the upper and lower airways.
- 5.5 Describe the purpose of the respiratory system.
- 5.6 Describe how the circulating blood is involved in the respiratory system.
- 5.7 Name and locate the major parts of the lung.
- 5.8 Locate and describe the larynx.
- 5.9 Locate and describe the trachea.
- 5.10 Describe the thoracic cage.
- 5.11 Describe the mechanism by which air moves in and out of the lungs.
- 5.12 Describe the pleura.
- 5.13 Describe how breathing is controlled.

Unit 6. Injuries of the Chest

General Outcome:

6.0 The students should know the types of chest injuries and methods of emergency care.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 6.1 Identify the two classes of chest injuries.
- 6.2 Define the significant terms associated with chest injuries.
- 6.3 Describe how chest injuries may occur and explain why they are a major importance.
- 6.4 List the important signs of a chest injury.
- 6.5 Describe the general principles of care of closed chest injuries.
- 6.6 Describe the management of various types of closed chest injuries.
- 6.7 Describe the management of various types of open chest injuries.

Unit 7. Circulatory System

General Outcome:

7.0 The students should know the structure and function of the cardiovascular system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 7.1 List the component portions of the cardiovascular system.
- 7.2 Describe the functions of the parts of the cardiovascular system.
- 7.3 Name, in order, the types of vessels through which blood cells pass after leaving the heart until they return to the heart.
- 7.4 Identify the components of normal blood.
- 7.5 Describe the functions of each of the types of cells and components in blood.
- 7.6 Describe the exchange of nutrients and oxygen in the tissues.
- 7.7 Describe the exchange of oxygen and carbon dioxide in the lungs.
- 7.8 Define the terms: pulse, blood pressure, and venous pressure and identify the normal reading for each.
- 7.9 State the approximate volume of blood for infants, children and adults.
- 7.10 Describe how the circulatory system adjusts to changes imposed on it.

Unit 8. Bleeding and Control of Bleeding

General Outcome:

- 8.0 The students should know how to recognize the existence of internal and external bleeding and methods of emergency care.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 8.1 Identify the characteristics of bleeding from arteries, veins and capillaries.
- 8.2 Describe the signs by which internal hemorrhage may be recognized.
- 8.3 Describe the process by which bleeding normally stops in the human body.
- 8.4 Compare the means available for controlling internal and external hemorrhage.
- 8.5 Describe the dangers if improperly used tourniquets.
- 8.6 State the amount of blood loss that can be sustained by infants, children, or adults without developing shock.
- 8.7 Describe the effects of internal bleeding.

Unit 9. Shock

General Outcome:

- 9.0 The students should understand the physiology cause, diagnosis, and treatment of shock.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 9.1 Recognize the signs and symptoms of shock.
- 9.2 Describe the physiology of shock.
- 9.3 Describe the principles of general care for patients in shock.
- 9.4 Describe the procedures for preventing shock.
- 9.5 List the steps in administering intravenous fluids.
- 9.6 Explain the role of intravenous fluid therapy in the treatment of shock.

Unit 10. Basic Life Support

General Outcome:

10.0 The students should understand basic life support procedures for adults and children.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 10.1 Define basic life support.
- 10.2 Describe the general state of a patient needing basic life support.
- 10.3 Describe the circumstances under which CPR is terminated.
- 10.4 Describe the steps in beginning artificial ventilation.
- 10.5 Describe the head-tilt maneuver.
- 10.6 List the steps in the jaw-thrust maneuver.
- 10.7 Recognize and describe the care of the patient with an airway obstruction.
- 10.8 Describe care of the airway in a patient with spinal injuries.
- 10.9 Describe mouth-to-mouth ventilation and its problems.
- 10.10 Describe the special cases where mouth-to-mouth techniques are not appropriate.
- 10.11 Describe the technique of closed-chest compression.
- 10.12 Describe resuscitation techniques by two people and by one person.
- 10.13 Describe the differences in resuscitation for children.
- 10.14 Describe the pericardial thump.
- 10.15 List the indications for and advantages of the use of supplemental oxygen in CPR.
- 10.16 List the risks of oxygen therapy.
- 10.17 Describe mouth-to-mask breathing techniques.
- 10.18 Describe the techniques of oropharyngeal and nasopharyngeal suctioning.
- 10.19 List the types of artificial airways and their uses.

Unit 11. Oxygen Therapy and Equipment

General Outcome:

- 11.0 The students should understand the proper use of artificial ventilation devices and the supplemental oxygen.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 11.1 Define hypoxia and describe its consequences.
- 11.2 Match the types and causes of hypoxia.
- 11.3 Identify the characteristics of patients needing oxygen therapy.
- 11.4 List the types, functions, and safety features of oxygen therapy equipment.
- 11.5 Point out the hazards of oxygen therapy.
- 11.6 Explain the need for humidification of oxygen.

Unit 12. The Integumentary System

General Outcome:

- 12.0 The students should know the structure and function of the skin and subcutaneous tissue.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 12.1 Identify the layers of the skin.
- 12.2 Define the functions of the skin.
- 12.3 Identify the organs and structures contained within the skin.

Unit 13. The Muscular System

General Outcome:

13.0 The students should understand the structure and function of the muscular system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 13.1 Identify the locations and describe the characteristics and functions of the voluntary muscles.
- 13.2 Identify the locations and describe the characteristics and functions of the involuntary muscles.
- 13.3 Define the term cardiac muscle and describe its function.
- 13.4 Explain the function of muscle attachments to bone or other muscles.
- 13.5 Describe the process peristalsis.

Unit 14. The Skeletal System

General Outcome:

1.0 The students should understand the structure and function of the skeletal system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 14.1 Define a bone.
- 14.2 Define a joint.
- 14.3 Describe the characteristics of each of the following components of the skeletal system:
 - spinal column
 - skull
 - thorax
 - upper extremities
 - pelvis
 - lower extremities
- 14.4 Name the protective functions of the skeletal system.
- 14.5 Label the parts in a drawing of the anatomy of the bones and joints.

Unit 15. Fractures and Dislocations and Sprains

General Outcome:

- 15.0 The students should understand the common injuries to the musculoskeletal system and methods of examination.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 15.1 List the causes of fractures and dislocations.
- 15.2 Describe the characteristics of fractures.
- 15.3 List the signs of dislocations.
- 15.4 List the differences between open and closed fractures and dislocations.
- 15.5 Describe the proper examination of a suspected fracture or dislocation.
- 15.6 Explain the importance of evaluation and proper care of fractures and dislocations.

Unit 16. General Principles of Splinting and Bandaging

General Outcome:

16.0 The students should understand the general principles of treating injured limbs.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 16.1 Explain the reasons for splinting fractures.
- 16.2 State the general rules of splinting
- 16.3 Name the types of splints and describe the methods of their application.
- 16.4 Explain the main functions of bandages and dressings.

Unit 17. Fractures and Dislocations of the Shoulder and Upper Extremity

General Outcome:

- 17.0 The students should understand the methods of emergency evaluation and treatment of upper-extremity injuries.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 17.1 Name the mechanism of injury in fractures and dislocations of the shoulder and upper extremity.
- 17.2 Describe the most common signs and symptoms of fractures and dislocations of the shoulder and upper extremity.
- 17.3 Describe the treatment of fractures and dislocations of the shoulder and upper extremity.

Unit 18. Fractures and Dislocations of the Hip, Pelvis and Lower Extremity

General Outcome:

- 18.0 The students should understand the methods of emergency evaluation and treatment of pelvic and lower extremity injuries.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 18.1 Explain how to diagnose a fracture of the pelvis.
- 18.2 Describe the treatment and list the complications of fractures of the pelvis.
- 18.3 List the types of dislocations of the hip and their treatment.
- 18.4 List the types of fractures of the hip and their treatment.
- 18.5 Describe the treatment of fractures of the femur.
- 18.6 List the types of injuries of the knee.
- 18.7 List the types of fractures of the knee.
- 18.8 List the complications of fractures and dislocations of the knee and their treatment.
- 18.9 Describe the treatment of fractures of the tibia and fibula.
- 18.10 Describe the treatment of fractures of the foot and ankle.

Unit 19. Fractures and Dislocations of the Spine.

General Outcome:

- 19.0 The students should know the structure, function, diagnosis and treatment of the spine and spinal cord.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 19.1 Describe how the spine is formed and its function.
- 19.2 Describe the effects of a fracture or a dislocation of the spine.
- 19.3 Name the types of trauma most likely to produce spinal injuries.
- 19.4 Describe signs and symptoms of spinal injuries and methods of determining their significance.
- 19.5 List the rules of proper initial care of a patient with spinal injuries.
- 19.6 Identify special problems in resuscitating the patient with a spinal injury.
- 19.7 Describe under what conditions a patient with spinal injury may be repositioned.
- 19.8 Describe how to provide emergency care and remove someone safely from the water after sustaining possible injury in a diving accident.
- 19.9 Using an anatomical reference identify the five sections of the spine.

Unit 20. The Nervous System

General Outcome:

20.0 The students should know the structures and function of the nervous system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 20.1 Identify all the structures of the nervous system and its division.
- 20.2 Describe the functions of the central nervous system, cerebrum, cerebellum, brain stem, and spinal cord.
- 20.3 Describe the functions of the anatomic nervous system.
- 20.4 Describe the functions of nerve cells.

Unit 21. Injuries of the Skull and Brain

General Outcome:

21.0 The students should know the characteristics and treatment of injuries of the skull, brain, and spinal cord.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 21.1 Describe the signs of head, brain and spinal injuries.
- 21.2 Identify the types of skull fractures.
- 21.3 Describe physiological characteristics of brain injury.
- 21.4 Describe the examination procedures for head and brain injuries.
- 21.5 Describe the procedures for treatment of head and brain injuries.

Unit 22. The Eye

General Outcome:

22.0 The students should know the various structures of the eye and understand their functions.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 22.1 Explain the process of 'seeing'.
- 22.2 Name the specific anatomical structures of the eye.
- 22.3 Describe the specific functions of the eye structures.
- 22.4 Describe pupil reaction and the neurological significance of this reaction.

Unit 23. Injuries of the Eye, Face, and Throat

General Outcome:

- 23.0 The students should know the effects of various injuries and methods of treatment of the eye, face and throat.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 23.1 Explain the diagnosis and treatment of lacerations and contusions of the eye.
- 23.2 Describe the treatment for an extruded eyeball.
- 23.3 Explain the relationship of eyeglasses and contact lenses to injuries of the eyes.
- 23.4 State the significant aspects of treatment of blunt trauma to the eye.
- 23.5 Describe the diagnosis and treatment of the types of burns that can affect the eyes.
- 23.6 State the condition of the pupils that may lead the EMT to suspect a head injury.
- 23.7 List the possible causes of breathing problems in relationship to face and head injuries.
- 23.8 Describe the emergency care of soft-tissue injuries of the scalp, face, and throat.
- 23.9 Explain the results of various injuries of the throat and the emergency treatment for them.
- 23.10 Describe the treatment of injuries of the nose.
- 23.11 State the possible results of injuries of the facial bones and describe emergency treatment for them.

Unit 24. The Abdomen and Digestive System

General Outcome:

24.0 The students should know the abdominal and pelvic cavities and the organs contained within and around them.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 24.1 Define the boundaries of the abdominal cavity.
- 24.2 List the contents of the abdominal and pelvic cavities.
- 24.3 List the components of the gastrointestinal tract and digestive system.
- 24.4 List the solid organs of the abdomen.
- 24.5 List the hollow organs of the abdomen.

Unit 25. Injuries of the Abdomen

General Outcome:

25.0 The students should know the types, characteristics, and treatment of severe abdominal injuries.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 25.1 Name the injuries that can be caused by improperly adjusted seatbelts.
- 25.2 List the characteristics of severe abdominal injuries.
- 25.3 List the characteristics of hollow organ injuries.
- 25.4 List the characteristics of solid organ injuries.
- 25.5 List the characteristics of abdominal blood vessel injuries.
- 25.6 Describe the difference between open and closed abdominal injuries.
- 25.7 Describe the methods used for evaluating a patient with an abdominal injury.
- 25.8 List the vital signs which should be recorded for a patient who has an abdominal injury.
- 25.9 Describe the procedures used in the treatment of a patient with a severe abdominal injury.
- 25.10 List the steps in the treatment of a patient who has sustained a severe abdominal injury and is vomiting.
- 25.11 List the steps in the treatment of a patient with an abdominal evisceration.
- 25.12 List the steps in the treatment of a patient with a foreign object protruding from the abdomen.

Unit 26. The Acute Abdomen

General Outcome:

26.0 The students should know the characteristics and treatment of an acute abdomen.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 26.1 Describe the signs and symptoms of an acute abdomen.
- 26.2 List the common causes of an acute abdomen.
- 26.3 List the differences between localized and diffused abdominal pain.
- 26.4 Describe how diseases cause the signs of acute abdomen.
- 26.5 List the steps of an orderly examination of an acute abdomen.
- 26.6 List the vital signs which should be observed and recorded in examining a patient with an acute abdomen.
- 26.7 Describe why it is important to maintain an airway, administer oxygen and prevent or treat shock in the patient with acute abdomen.
- 26.8 Explain why patients with an acute abdomen should not be given anything to eat or drink.

Unit 27. Common Gastrointestinal and Genitourinary Complaints

General Outcome:

- 27.0 The students should know the common gastrointestinal and genitourinary complaints not associated with injuries or an acute abdomen.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 27.1 Define and describe dysphagia.
- 27.2 List three major causes of vomiting.
- 27.3 Differentiate between vomiting and regurgitation.
- 27.4 Describe the treatment and the precautions for the patient who is vomiting.
- 27.5 Define and describe hematemesis.
- 27.6 List three principal causes of hematemesis.
- 27.7 Define and list five major causes of diarrhea.
- 27.8 Define and describe melena.
- 27.9 Define and describe hematochezia.
- 27.10 Define, describe and list three major causes of jaundice.
- 27.11 Define and describe colic.

Unit 28. The Genitourinary System

General Outcome:

28.0 The students should know the structures and functions of the genitourinary systems in the male and female.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 28.1 Describe the structures and functions of the urinary system.
- 28.2 Describe the structures and functions of the genital system in the male.
- 28.3 Describe the structures and functions of the genital system in the female.

Unit 29. Injuries of the Genitourinary System

General Outcome:

29.0 The students should know the characteristics and treatment of injuries of the genitourinary system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 29.1 Describe the Characteristics of injuries of the urinary system.
- 29.2 Describe the characteristics of injuries of the genital system in the male.
- 29.3 Describe the characteristics of injuries of the genital system of the female.
- 29.4 Describe the evaluation of a patient with a urinary tract injury.
- 29.5 Describe the procedures used by the EMT in treating injuries of the urinary tract.
- 29.6 Describe the procedures used by the EMT in treating injuries of the male genitalia.
- 29.7 Describe the procedures used by the EMT in treating injuries of the female genitalia.
- 29.8 Describe the general care of a female victim of a sexual assault and rape.

Unit 30. Heart Attack

General Outcome:

- 30.0 The students should understand the physiology of the heart and treatment of common conditions.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 30.1 Explain the function of the blood supply of the heart.
- 30.2 Describe the process of atherosclerosis.
- 30.3 Describe the varied presentations of acute myocardial infarction (AMI)
- 30.4 Describe the physical findings of AMI.
- 30.5 Describe the therapy of AMI.
- 30.6 Describe the usual presentation of angina.
- 30.7 Describe the difference between angina and acute myocardial infarction.
- 30.8 Describe the changes in the heart with heart failure.
- 30.9 Describe the clinical picture of congestive heart failure.
- 30.10 Describe the therapy of congestive heart failure.

Unit 31. Stroke

General Outcome:

31.0 The students should understand the causes and treatment of stroke.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 31.1 Define stroke.
- 31.2 List the causes of stroke.
- 31.3 List the effects of stroke on the body.
- 31.4 Describe the presenting symptoms of stroke.
- 31.5 Describe the initial evaluation of the stroke patient.
- 31.6 Describe the immediate care of the patient with stroke.
- 31.7 List the precautions to be taken which are unique to the stroke patient.

Unit 32. Diabetes Millitus

General Outcome:

32.0 The students should understand the causes, treatment and results of diabetes mellitus.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 32.1 Explain the process of sugar digestion.
- 32.2 Describe the symptoms of diabetes mellitus.
- 32.3 List the symptoms of diabetic coma.
- 32.4 List the symptoms of insulin shock.
- 32.5 Describe the therapy for the conscious diabetic patient.
- 32.6 Describe the therapy for the unconscious diabetic patient.

Unit 33. Dyspnea

General Outcome:

33.0 The students should understand the causes and treatment of dyspnea.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 33.1 Define Dyspnea.
- 33.2 List the medical causes of shortness of breath.
- 33.3 Describe the means by which the blood acquires oxygen and loses carbon dioxide.
- 33.4 Describe how the level of carbon dioxide in the blood affects respiration.
- 33.5 Describe the effects of excess carbon dioxide in the body.
- 33.6 Describe how the level of oxygen in the blood affects respiration.
- 33.7 List the causes of chronic lung disease.
- 33.8 Describe the clinical presentation of lung disease.
- 33.9 Describe the emergency treatment of lung disease and special precautions for such treatment.
- 33.10 Define asthma.
- 33.11 Describe the emergency therapy for asthma.
- 33.12 Describe hyperventilation and the therapy for it.

Unit 34. Unconscious States

General Outcome:

34.0 The students should know the common causes and treatment of unconsciousness.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 34.1 List the common causes of unconsciousness.
- 34.2 Describe the differences in the causes of loss of consciousness.
- 34.3 Explain what brings on unconsciousness in the common infant.
- 34.4 Name the types of convulsions in epilepsy.
- 34.5 Explain how a convulsion is brought on.
- 34.6 Describe the general care of an unconscious patient.
- 34.7 Describe the care of a person who has fainted.
- 34.8 Describe the treatment of and special considerations for the person who has undergone a convulsion.
- 34.9 Describe the treatment of the patient who has taken a drug overdose.

Unit 35. Communicable Disease

General Outcome:

- 35.0 The students should be familiar with the characteristics and basic epidemiology of the more common communicable diseases and role of EMT.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 35.1 Define a communicable disease.
- 35.2 List modes of transmission of a communicable disease.
- 35.3 Define terms used when referring to a communicable disease.
- 35.4 Define the EMT's role in the control of a communicable disease.
- 35.5 List measures to be taken by the EMT to minimize his personal exposure to a communicable disease.
- 35.6 List measures the EMT must take in the maintenance of his vehicle when it is exposed to a communicable disease.
- 35.7 List the measures the EMT must take in handling a patient with a communicable disease.
- 35.8 List the sources of common communicable diseases.
- 35.9 List the incubation periods of common communicable diseases.
- 35.10 List the mode of transmission of common communicable diseases.
- 35.11 List communicable diseases for which immunizations are available.
- 35.12 State the difference between period of incubation and period of communicability.

Unit 36. Childbirth

General Outcome:

36.0 The students should understand the basic principles and emergency care in labor, childbirth and neonatal care.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 36.1 List four things not do for a pregnant woman with convulsions.
- 36.2 List four things to do for a pregnant woman who is hemorrhaging.
- 36.3 Describe four signs which indicate that a mother is probably going to deliver in a few minutes.
- 36.4 Identify three circumstances in which it will probably be necessary for the mother to deliver at the site.
- 36.5 Describe the preparation of the surface upon which the mother should lie for delivery.
- 36.6 Describe the position the mother should assume for delivery.
- 36.7 Describe the location of each of the EMT's and their supplies during delivery.
- 36.8 List the steps to be taken in helping to deliver the baby.
- 36.9 Identify the characteristics of complicated deliveries.
- 36.10 Describe the procedures to follow in various complicated deliveries.
- 36.11 List the things to do for the baby after delivery.
- 36.12 Describe the procedure for separating the baby and the umbilical cord.
- 36.13 Describe the signs of a baby requiring resuscitation and the steps in providing resuscitation.
- 36.14 Describe characteristics of the premature baby and procedures for its care.
- 36.15 Describe the procedures for assisting the mother following a normal delivery.
- 36.16 Describe the procedures for treating a mother who has severe bleeding or other problems following delivery.

Unit 37. Pediatric Emergencies

General Outcome:

- 37.0 The students should understand the diagnosis and management of common pediatric emergencies such as sudden infant death syndrome (SIDS), child abuse, and sexual molestation of children.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 37.1 Describe the treatment for a child with an obstructed airway or a child requiring assisted ventilation or cardiac compression.
- 37.2 List the systolic blood pressure levels indicating shock in children in various age groups.
- 37.3 Describe how to estimate the volume of intravenous fluids that can be administered to a child safely.
- 37.4 List traumatic and nontraumatic causes of abdominal pain in children.
- 37.5 Describe how to treat a child with a high fever.
- 37.6 List some common causes of convulsions in children.
- 37.7 List the steps in treating a child who has ingested a poison.
- 37.8 Define Sudden Infant Death Syndrome.
- 37.9 List the identifying features of child abuse.
- 37.10 Describe the treatment of a sexually molested child.

Unit 38. The Disturbed and Unruly Patient

General Outcome:

- 38.0 The students should understand the emotional reactions of normal people to sickness and injury and understand the principles of managing the emotionally disturbed patient.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 38.1 Describe the psychological and psychiatric reactions of patients with injuries or illness.
- 38.2 Describe the psychiatric problems of the dying patient.
- 38.3 List specific organic diseases or conditions associated with disturbed behavior.
- 38.4 Describe the range of psychiatric or behavioral disturbances seen in response to injury.
- 38.5 Describe the specific means by which the EMT may treat unruly or disturbed behavior in given instances.
- 38.6 Describe the emergency treatment for the suicidal patient.
- 38.7 Describe the behavior patterns of the emotionally disturbed patient.
- 38.8 Describe the behavior of the aged senile patient with organic brain disease.
- 38.9 Establish appropriate priorities in psychiatric and medical care for suicidal or disturbed patients.
- 38.10 Describe the situations in which additional aid is required.
- 38.11 Describe the appropriate areas of help available to the EMT in treating the emotionally disturbed patient.
- 38.12 Describe the legal limitations imposed on the EMT in treating the emotionally disturbed patient.

Unit 39. Alcohol and Drug Abuse

General Outcome:

- 39.0 The students should understand the principles and emergency care of drug and alcohol abuse patients.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 39.1 List the commonly used drugs by type of reactions produced.
- 39.2 List the various drugs and materials subject to abuse.
- 39.3 List the various substances which may be accidentally ingested and which may produce adverse reactions.
- 39.4 List the most common types of drugs abused.
- 39.5 List major clinical effects produced by drugs that are commonly abused.
- 39.6 List the disease processes that alcohol or drug abuse can mimic.
- 39.7 Describe the immediate care of patients who have abused alcohol or drugs.
- 39.8 Describe the immediate care of patients with an allergic drug reaction.
- 39.9 Describe how the EMT can be of assistance in identifying specific offending substances.
- 39.10 Describe local rules pertaining to the care of patients who have abused alcohol or drugs.

Unit 40. Heat Exposure

General Outcome:

40.0 The students should understand the types and treatment of heat exposure.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 40.1 List the causes of heat exposure.
- 40.2 Point out the common factor in all causes of heat exposure.
- 40.3 Point out the differences in the various causes of heat exposure.
- 40.4 Describe the importance of the skin as an organ of the body.
- 40.5 Point out other areas of organs which are endangered as a result of heat exposure.
- 40.6 Explain the importance and methods of rating burns.
- 40.7 List the common factors in treatment of all burns.
- 40.8 Describe the differences in the treatment of specific burns.
- 40.9 Describe systemic complications of burns.
- 40.10 Describe the signs and treatment of heat exhaustion.
- 40.11 Describe the signs and treatment of heat stroke.

Unit 41. Cold Exposure

General Outcome:

41.0 The students should understand the types and effects of cold exposure on the body.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 41.1 Describe the importance of the wind-chill factor.
- 41.2 Explain the methods of heat loss from the body.
- 41.3 List the clinical injuries of cold exposure.
- 41.4 Explain the factors aggravating cold exposure.
- 41.5 Describe the keystones of treatment of cold injuries.
- 41.6 Identify the methods of heat conservation.
- 41.7 Recognize the stages through which tissues pass as they are warmed.

Unit 42. Radiation Exposure

General Outcome:

- 42.0 The students should understand the methods of producing nuclear radiation and emergency care.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 42.1 Name the different kinds of ionizing radiation.
- 42.2 Name the physical and chemical forms in which ionizing radiation may be present.
- 42.3 Describe the methods by which ionizing radiation may enter the body to cause damage even though the radiation itself may not be able to penetrate the skin.
- 42.4 Describe a sign which would indicate the possible presence of radio-activity in an accident.
- 42.5 Name the three safety principles that are important in avoiding dangerous exposure to radiation.
- 42.6 State the principles of radiation decontamination.
- 42.7 State where one can obtain expert advice concerning possible patient exposure to ionizing radiation.
- 42.8 Demonstrate the use and reading interpretation of a Geiger Counter or other radiation survey meter.

Unit 43. Electrical Hazards

General Outcome:

- 43.0 The students should know the basic principles of an electric circuit, its effect on the body, and emergency care procedures.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 43.1 Name materials that conduct electric current.
- 43.2 Name materials that do not conduct electric.
- 43.3 Describe the conditions necessary for the flow of electric current.
- 43.4 List the most commonly encountered electrical hazards.
- 43.5 Describe how to recognize high voltage in a downed electric wire.
- 43.6 List the type of injury which is the most common result of electric shock.
- 43.7 Describe the method of immediate treatment for electrical burns.
- 43.8 Describe how electric shock may affect the heart and respiration.
- 43.9 List the causes of death from electric shock.
- 43.10 List the precautions necessary in dealing with electrical hazards.

Unit 44. Water Hazards

General Outcome:

44.0 The students should know the common water hazards and emergency care procedures.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 44.1 Define drowning
- 44.2 List the characteristics of hypothermia.
- 44.3 Define breath-holding blackout.
- 44.4 List injuries which can result from diving into shallow water.
- 44.5 List the most frequently encountered problems in scuba diving.
- 44.6 Define decompression sickness.
- 44.7 Define nitrogen narcosis.
- 44.8 Describe the methods of rescue and resuscitation in water-related injuries.
- 44.9 Describe rescue and resuscitation methods for a patient who has a suspected neck injury.
- 44.10 List the steps in treating the patient with hypothermia.
- 44.11 Describe the treatment of a scuba diver who suffers descent problems.
- 44.12 Describe how to correct nitrogen narcosis.
- 44.13 Describe the treatment of air embolism.
- 44.14 Describe the prevention and treatment of decompression sickness.

Unit 45. Poisons, Stings, and Bites

General Outcome:

- 45.0 The students should be aware of the general scope of the common forms and problems of poisoning. i.e., plants, insect bites, stings, snakes, dog bites and marine animals.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 45.1 Define a poison.
- 45.2 List the common categories of poisons in the household.
- 45.3 List the systems of the body which may be affected by poisons.
- 45.4 List the steps that should be taken in attending a patient who has ingested a poison.
- 45.5 Name the circumstances under which vomiting should not be induced for an ingested poison.
- 45.6 Describe the method used to induce vomiting.
- 45.7 Describe the emergency treatment of a patient who has had contact with a surface poison.
- 45.8 List the various body systems that can be affected by poisonous plants.
- 45.9 Describe the emergency treatment for a patient who has ingested a poisonous plant.
- 45.10 List the common classes of insects which can cause painful or harmful bites.
- 45.11 Describe the two types of responses the body makes in reaction to an insect bite or sting.
- 45.12 Describe the emergency treatment of a patient who has an allergic reaction to an insect sting.
- 45.13 Describe the signs, symptoms, and emergency treatment of a patient who has been bitten by a black widow spider.
- 45.14 Describe the signs, symptoms, and emergency treatment of a patient who has been bitten by a brown recluse spider.
- 45.15 List the poisonous snakes of the United States.
- 45.16 Describe the physical characteristics of pit vipers.
- 45.17 List the signs, physical findings, and emergency treatment of a patient who has been envenomed by a pit viper.
- 45.18 Describe the physical characteristics of a coral snake.
- 45.19 List the physical signs and symptoms and emergency treatment of a patient who has been envenomed by a coral snake.
- 45.20 Describe the types of injuries which marine animals can produce in human beings.
- 45.21 Describe the emergency treatment for a patient who has received a stinging injury from the tentacles of a jellyfish.
- 45.22 Describe the signs and symptoms and emergency treatment of a patient who has received a puncture wound from the spines of a sea urchin.

Unit 46. Emergency Driving and Traffic Control at the Accident Scene

General Outcome:

- 46.0 The students should know and understand basic principles of emergency driving and traffic control.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 46.1 Describe the effects of a speeding ambulance on the patient.
- 46.2 Identify the occasions when speed is considered essential in transporting patients.
- 46.3 Describe the human factors which contribute to unsafe driving.
- 46.4 Describe the physical factors which affect control of a vehicle.
- 46.5 Name the skills which a driver needs to operate an ambulance safely.
- 46.6 State your state and local laws covering right-of-way privilege.
- 46.7 State your state and local laws governing use of lights and siren.
- 46.8 Describe the actions necessary for safe parking of the ambulance at the accident scene.
- 46.9 Describe the actions necessary for effective traffic control at the accident scene.

Unit 47. Safety

General Outcome:

47.0 The students should understand safe operating procedures at the accident scene.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 47.1 Identify and explain dangerous conditions that may be encountered at the scene of an accident or other scenes of emergency and the precautions to be taken to protect the EMT and others.
- 47.2 Demonstrate knowledge of safety procedures to be followed in the use of all equipment and apparatus that the EMT may be called upon to use.
- 47.3 Demonstrate the correct use of all safety equipment to be used in electrical emergencies as prescribed by the authority having jurisdiction.
- 47.4 Identify and explain the symbols used to designate hazardous materials and areas, and identify precautions that ambulance crewmen are expected to observe and follow in such areas.

Unit 48. Emergency Vehicles, Equipment, and Maintenance

General Outcome:

48.0 The students should be familiar with emergency medical care vehicles, its equipment and maintenance.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 48.1 Define an ambulance.
- 48.2 Identify the basic medical requirements for an ambulance.
- 48.3 Identify the design criteria for an ambulance.
- 48.4 Compare helicopters and surface vehicles for advantages and disadvantages as ambulances.
- 48.5 List the categories of equipment to be carried on the ambulance.
- 48.6 Identify the essential equipment in each category.
- 48.7 Describe the daily inspection of an ambulance.
- 48.8 Describe the cleaning and decontamination.
- 48.9 Describe the 1,000-mile servicing procedure for an ambulance.
- 48.10 Given a display of the equipment carried on the ambulance:
 - a. identify and describe the purpose for which each would be used;
 - b. indicate the location where each is normally carried in the ambulance by returning the equipment to its proper place.

Unit 49. Patient Handling and Extrication

General Outcome:

49.0 The students should know the various techniques used in the movement of patients.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 49.1 List the methods an EMT working alone can use to move a patient.
- 49.2 Describe the standard lifts and carries.
- 49.3 Name the specialized methods of handling patients.
- 49.4 Describe the handling of sick or injured children.
- 49.5 Describe the handling of patients with communicable diseases.
- 49.6 Identify the use of each type of stretcher.
- 49.7 Describe the use of special and improvised stretchers.
- 49.8 Explain the necessity for EMTs to be knowledgeable in rescue operations.
- 49.9 List the types of rescue.
- 49.10 List the phases of rescue in disaster.
- 49.11 Name the areas where specialized rescue is necessary.
- 49.12 Name the element to be considered in extrication.
- 49.13 Describe the procedures to be used for each type of extrication.

Unit 50. Rescue

General Outcome:

- 50.0 The students should understand the various techniques used in the movement of patients.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 50.1 Describe the removal of injured persons from the immediate hazard by the use of carries, drags, and stretchers.
- 50.2 Describe how to prepare a victim from emergency transportation by using standard available equipment, or by improvising a method.

Unit 51. Communications

General Outcome:

- 51.0 The students should understand the importance of an effective Emergency Medical Service communication system.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 51.1 Describe the role that communication plays in an EMS system.
- 51.2 Describe the responsibilities of the EMS dispatcher.
- 51.3 Identify the various types of communication equipment used to link the dispatcher, the medical facilities, and the physician with the EMT.
- 51.4 Demonstrate knowledge of the correct procedure for a citizen to report a medical emergency.
- 51.5 Demonstrate correctly receiving a report of a medical emergency, and initiate proper action.
- 51.6 Demonstrate any traffic control devices installed in the ambulance station to facilitate the response of apparatus.
- 51.7 Demonstrate prescribed Emergency Medical Service radio procedures.
- 51.8 Demonstrate policy and procedures concerning requests for special assistance.
- 51.9 Identify and demonstrate knowledge of areas assigned for emergency ambulance response.
- 51.10 Demonstrate proper use, as specified by the authority having jurisdiction, of radio equipment, both mobile and portable.
- 51.11 Demonstrate arrival and situation reports over Emergency Medical Service radios in the manner specified by the authority having jurisdiction.

Unit 52. Radios and Reports

General Outcome:

- 52.0 The students should understand the purposes and requirements of EMT reporting and record keeping and know local procedures.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 52.1 Describe the purposes of EMT reporting and recordkeeping.
52.2 List the types of information required for medical legal, community health, and administrative purposes.
52.3 Identify users of information collected through the EMT reporting and recordkeeping system.
52.4 Identify the importance of EMT reporting and recordkeeping relative to other aspects of EMS.
52.5 Name the person or persons who report or record information for the ambulance, and tell what information is recorded and when needed.
52.6 Summarize local reporting and recordkeeping requirements and procedures.
52.7 Demonstrate completion of the local ambulance report form from a hypothetical call.

Unit 53. Trauma

General Outcome:

53.0 The students should know the Florida State Trauma System and state required trauma scoring system for student use in treating the trauma victim.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 53.1 Discuss the legislative action that resulted in the Florida State Trauma Care Act.
- 53.2 Identify FS 395, FS 401 and 10D.66
- 53.3 Using 10D.66, identify sections dealing with specific information.
- 53.4 Identify the requirements of 10D.66.100
- 53.5 Identify the requirements of 10D.66.102
- 53.6 Identify the requirements of 10D.66.103
- 53.7 Define protocol.
- 53.8 Identify what TTP stands for.
- 53.9 Describe the EMT/Paramedic's responsibility upon arrival at the location of the trauma incident according to 10D66.100, Section 6(b)1
- 53.10 Identify the procedures to be followed by the EMT/Paramedic for the completion of HRS Form 1728.
- 53.11 Identify the EMT/Paramedic responsibility for determining transport assistance for the trauma patient.
- 53.12 Identify a Pre-Hospital trauma alert.
- 53.13 Discuss the trauma transport destination criteria.
- 53.14 Identify HRS Form 1728, Aug./88, by title and contents.
- 53.15 Define GCS.
- 53.16 List the three areas that are evaluated on the GCS.
- 53.17 Compute a GCS, given a patient scenario.
- 53.18 State the implications for patients with various GCS.
- 53.19 State the range of GCS a patient can obtain.

- 53.20 Complete the Trauma Score card, given a patient scenario.
- 53.21 Define trauma registry.
- 53.22 Identify the purpose of the trauma registry.
- 53.23 Identify HRS Form 1729, Aug./88, by title and contents.
- 53.24 Complete the trauma transport log given a patient scenario.
- 53.25 Identify the length of time trauma records must be saved.
- 53.26 Identify what PTRC stands for.
- 53.27 Discuss Trauma Center and PTRC verification standards.
- 53.28 Discuss the differences between pediatric and adult trauma scoring systems.
- 53.29 Discuss pediatric trauma score care according to PPHTC (Dr. Luten) and the AHA PALS course.
- 53.30 Define the trauma patient.
- 53.31 Discuss the purpose for the Trauma Bypass Log.