

Course Code: EMS 117**Course Title:** Advanced EMT II**Department:** Allied Health**Effective Date:** Summer 2026**PCS Code:** 1.2 - Occupational/Technical Instruction**CIP Code:** 51.0904**Repeatability:** 0

Credit Hours

Catalog Notation: 2-9-3**Credit Hour Distribution:**

Lecture: 2

Lab: 2

Clinical: 7

Total: 3

General Course Information

Catalog Description

Second course in the AEMT certificate. Topics include trauma emergencies, geriatric, pediatric, and special populations, and ambulance/transport operations. Includes the practical field experience requirement for the certificate.

General Course Objectives

To prepare competent entry-level Advanced Emergency Medical Technicians in the cognitive, psychomotor, and affective learning domains.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 098	Placement out of CCS 098	Placement into MAT 059

Prerequisites

Credit in EMS 116

Methods of Evaluation

15-25 objective quizzes; 5-10 objective exams; 2-5 practical exams; 2-4 oral exams.

Instructional Materials and Additional Supplies

Advanced Emergency Care and Transportation of the Sick and Injured with Navigate 2 Premier Package, Online Content. Current edition. 9781284123005

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.
- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Trauma Overview	1. Define the term mechanism of injury (MOI), and explain its relationship to potential energy, kinetic energy, and work. 2. Define the term index of suspicion, and explain its relationship to the advanced emergency medical technician's (AEMT's) assessment of trauma. 3. Define the terms blunt trauma and penetrating trauma, and provide examples of the MOI that would cause each one to occur. 4. Describe the five types of motor vehicle collisions, the injury patterns associated with each one, and how each relates to the index of suspicion of life-threatening injuries. 5. Discuss the three specific factors to consider during assessment of a patient who has been injured in a fall, plus additional considerations for pediatric and geriatric patients. 6. Discuss the effects of high-, medium-, and low-velocity penetrating trauma on the body and how an understanding of each type helps the AEMT form an index of suspicion about unseen life-threatening injuries. 7. Discuss primary, secondary, tertiary, and miscellaneous blast injuries, and describe the anticipated damage each one will cause to the body. 8. Describe multisystem trauma and the special considerations that are required for patients who fit this category, and provide a general overview of multisystem trauma patient management. 9. Outline the major components of trauma patient assessment, including considerations related to whether the MOI was significant or non-significant. 10. Discuss the special assessment considerations related to a trauma patient who has injuries in each of the following areas: head, neck and throat, chest, and abdomen. 11. Describe trauma patient management in relation to scene time, type of transport, and destination selection and list the Association of Air Medical Services criteria for the appropriate use of emergency air medical services. 12. Discuss the facilities and transport resources available through emergency medical services (EMS) trauma systems. 13. Describe the American College of Surgeons' Committee on Trauma classification of trauma centers and how it relates to making an appropriate destination selection for a trauma patient.	2	0	0
Bleeding	1. Describe the physiology of perfusion. 2. Review the cardiac cycle, including the concepts of preload, afterload, and cardiac output. 3. Discuss the pathophysiology of external and internal bleeding. 4. Describe the characteristics of arterial bleeding, venous bleeding, and capillary bleeding. 5. Explain how to determine the nature of illness for internal bleeding, including identifying possible traumatic and non-traumatic causes. 6. List the signs and symptoms of internal bleeding. 7. List the signs and symptoms of hypovolemic shock. 8. Discuss the body's physiologic response to hemorrhaging. 9. Describe the four classes of hemorrhaging. 10. Describe the assessment process for patients with external and internal bleeding. 11. Discuss the importance of addressing life-threatening hemorrhage prior to airway and breathing concerns. 12. Describe what could be happening in the body when a patient with suspected internal bleeding becomes calm and still. 13. Discuss transport considerations for patients who are hemorrhaging. 14. Explain the emergency medical care of a patient with external bleeding. 15. Differentiate and discuss situations in which a tourniquet may be used to control external bleeding. 16. List precautions to follow when applying a tourniquet.	2	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Bleeding (cont'd)	17. Discuss the use of splints to control external bleeding. 18. Describe how hemostatic agents work to control severe hemorrhage. 19. List specific instances in which using a pneumatic antishock garment (PASG) to control bleeding may be an effective alternative. 20. Discuss assessment and management of bleeding from the nose, ears, and mouth. 21. Explain the emergency medical care of a patient with internal bleeding. 22. Explain how to manage hemorrhagic shock. 23. Demonstrate emergency medical care of the patient with external bleeding using direct pressure. 24. Demonstrate emergency medical care of the patient with external bleeding using a commercial tourniquet. 25. Adapt and demonstrate management plans for emergency medical care of the patient who shows signs and symptoms of internal bleeding.			
Soft-Tissue Injuries	1. Review the anatomy and physiology of the skin. 2. List the functions of the skin. 3. Discuss the pathophysiology of soft-tissue injuries, including closed injuries, open injuries, and burns. 4. Describe the following types of closed soft-tissue injuries: contusion, hematoma, and crush injury. 5. Describe the following types of open soft-tissue injuries: abrasions, lacerations, avulsions, amputations, bite wounds, penetrating wounds, and blast injuries. 6. Describe the pathophysiology of wound healing. 7. Describe the assessment process for patients with a soft-tissue injury. 8. Differentiate the relationship between airway management and the patient with closed and open injuries. 9. Discuss emergency medical care of a patient with a soft-tissue injury. 10. List the functions of sterile dressings and bandages. 11. Discuss assessment and management of avulsions, amputations, bite wounds, gunshot wounds, open abdominal wounds, impaled objects, and open neck wounds. 12. Discuss the pathophysiology of burns, and explain the development of hypovolemic shock. 13. Define and give the characteristics of superficial, partial-thickness, and full-thickness burns. 14. Explain how the seriousness of a burn is related to its depth and extent. 15. Explain the steps involved in the assessment of burns. 16. Describe and discuss the emergency management of burns, including chemical, electrical, thermal, inhalation, and radiation burns. 17. Demonstrate the emergency medical care of closed soft-tissue injuries. 18. Demonstrate how to control bleeding in an open soft-tissue injury. 19. Demonstrate the emergency medical care of a patient with an open abdominal wound. 20. Demonstrate how to stabilize an impaled object. 21. Demonstrate how to care for a burn. 22. Organize and demonstrate the emergency medical care of a patient with a chemical, electrical, thermal, inhalation, or radiation burn.	2	2	2
Face and Neck Injuries	1. Review the anatomy and physiology of the head, face, and neck, including the major structures and specific landmarks that advanced emergency medical technicians must know. 2. Describe the factors that may cause the obstruction of the upper airway following a facial injury. 3. Discuss the causes and the patient care considerations related to each of the following types of facial injuries: soft-tissue injuries, nasal fractures, mandibular fractures, Le Fort fractures, orbital fractures, and zygomatic fractures. 4. Outline and explain the patient assessment and management process of providing emergency medical care to the patient who has sustained facial and neck injuries. 5. List the steps in the emergency medical care of the patient with soft-tissue wounds of the face and neck. 6. List the steps in the emergency medical care of the patient with an eye injury based on the following scenarios: foreign object, impaled object, burns, lacerations, blunt trauma, closed head injuries, and blast injuries. 7. Describe the three different causes of burn injuries to the eye and the patient management considerations related to each cause.	2	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Face and Neck Injuries (cont'd)	8. List the steps in the emergency medical care of the patient with an injury of the nose. 9. List the steps in the emergency medical care of the patient with one of the following injuries of the ear: lacerations, avulsions, foreign body insertions, and perforation of the tympanic membrane. 10. List the steps in the emergency medical care of the patient with a facial fracture. 11. List the steps in the emergency medical care of the patient with dental and cheek injuries, including management of oropharyngeal bleeding, impaled objects, and avulsed teeth. 12. List the steps in the emergency medical care of the patient with an upper airway injury caused by blunt trauma. 13. List the steps in the emergency medical care of the patient with a penetrating injury to the neck, including management of regular and life-threatening bleeding and impaled objects. 14. List the steps in the emergency medical care of the patient with laryngeal injuries, including both open and occult injuries. 15. List the steps in the emergency medical care of the patient with muscular injuries of the neck, including both sprains and strains. 16. Demonstrate the care of a patient who has a penetrating eye injury. 17. Demonstrate the removal of a foreign object from under a patient's upper eyelid. 18. Demonstrate the stabilization of a foreign object that has been impaled in a patient's eye. 19. Accurately perform irrigation of a patient's eye using a nasal cannula, bottle, or basin. 20. Demonstrate how to control bleeding from a neck injury.			
Head and Spine Injuries	1. List the major bones of the skull and spinal column and their related structures, and describe their functions as related to the nervous system. 2. Describe the anatomy and physiology of the nervous system, including its divisions into the central nervous system (CNS) and peripheral nervous system and the structures and functions of each. 3. Describe the regions of the brain, including the cerebrum, diencephalon, brainstem, and the cerebellum, and their functions. 4. Discuss age-related variations that are required when providing emergency care to a pediatric patient who has a suspected head or spinal injury. 5. List the mechanisms of injury that cause a high index of suspicion for the possibility of a head or spinal injury. 6. Discuss the different types of head injuries, their potential mechanism of injury (MOI), and general signs and symptoms of a head injury that the advanced emergency medical technician (AEMT) should consider when performing a patient assessment. 7. Determine the differences between the signs and symptoms of head injury and those of traumatic brain injury. 8. Define traumatic brain injury (TBI) and explain the difference between a primary (direct) injury and a secondary (indirect) injury, providing examples of possible mechanisms of injury that may cause each one. 9. Discuss the different types of brain injuries and their corresponding signs and symptoms, including increased intracranial pressure (ICP), concussion, contusion, and injuries caused by medical conditions. 10. Discuss the different types of injuries that may damage the cervical, thoracic, or lumbar spine, providing examples of possible mechanisms of injury that may cause each one. 11. Describe the steps in the patient assessment process for a person who has a suspected head or spinal injury, including specific variations that may be required as related to the type of injury. 12. Discuss when it would be appropriate to establish intravenous access in a patient with a head or spinal injury, including the importance of judicious fluid administration. 13. Describe the process of providing emergency medical care to a patient with a head injury, including the four general principles designed to protect and maintain the critical functions of the CNS. 14. Adapt the process of providing emergency medical care to a patient with a spinal injury, including the implications of not properly caring for patients with injuries of this nature, the steps for performing manual in-line stabilization, implications for sizing and using a cervical spine immobilization device, and key symptoms that contraindicate in-line stabilization.	1	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Head and Spine Injuries (cont'd)	15. Adapt the process of preparing patients who have suspected head or spinal injuries for transport, including the use and functions of a long backboard, short backboard, and other short spinal extrication devices to immobilize the patient's cervical and thoracic spine. 16. Explain the different circumstances in which a helmet should be either left on or taken off a patient with a possible head or spinal injury, and then list the steps AEMTs must follow to remove a helmet, including the alternate method for removing a football helmet. 17. Demonstrate how to perform a jaw-thrust maneuver on a patient with a suspected spinal injury. 18. Demonstrate how to perform manual in-line stabilization on a patient with a suspected spinal injury. 19. Demonstrate how to apply a cervical collar to a patient with a suspected spinal injury. 20. Demonstrate how to immobilize a patient with a suspected spinal injury to a long backboard. 21. Demonstrate how to immobilize a patient with a suspected spinal injury to a scoop stretcher. 22. Demonstrate how to immobilize a patient with a suspected spinal injury to a vacuum mattress. 23. Demonstrate how to immobilize a patient with a suspected spinal injury who was found in a sitting position. 24. Demonstrate how to immobilize a patient with a suspected spinal injury to a short backboard. 25. Demonstrate how to remove a helmet from a patient with a suspected head or spinal injury. 26. Demonstrate the alternate method for removal of a helmet from a patient with a suspected head or spinal injury.			
Chest Injuries	1. Review the anatomy and physiology of the thorax. 2. Understand the mechanics of ventilation in relation to chest injuries. 3. Discuss specific chest injuries, including closed versus open chest injury, blunt versus penetrating trauma, and effects on cardiac output, respiration, and ventilation. 4. Differentiate between a pneumothorax (open, simple, and tension) and a hemothorax. 5. List general signs and symptoms of a chest injury. 6. Discuss the significance of various signs and symptoms of chest injury, including changes in heart rate, dyspnea, jugular vein distention, muffled heart sounds, changes in blood pressure, diaphoresis or changes in pallor, hemoptysis, and changes in mental status. 7. Explain the assessment process for a patient with a chest injury. 8. Explain the general management of a patient with a chest injury. 9. Explain the assessment and management of chest wall injuries, including rib fractures, flail chest, sternal fracture, clavicle fracture, and commotio cordis. 10. Describe the complications of rib fractures. 11. Describe the complications of flail chest. 12. Explain the assessment and management of lung injuries, including simple pneumothorax, open pneumothorax, tension pneumothorax, hemothorax, and pulmonary contusion. 13. Explain the complications associated with an open pneumothorax (sucking chest wound). 14. Explain the assessment and management of myocardial injuries, including cardiac tamponade, myocardial contusion, and myocardial rupture. 15. Describe the complications of cardiac tamponade. 16. Explain the assessment and management of vascular injuries, including traumatic aortic disruption and penetrating wounds of the great vessels. 17. Demonstrate an organized approach to the assessment and management of other thoracic injuries, including diaphragmatic injury, esophageal injury, tracheobronchial injuries, and traumatic asphyxia. 18. Describe the steps to take in the assessment of a patient with a suspected chest injury. 19. Demonstrate the management of a patient with a sucking chest wound. 20. Demonstrate the management of a patient with a flail chest.	2	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Abdominal and Genitourinary Injuries	1. Review the anatomy and physiology of the abdomen, including the abdominal quadrants and boundaries. 2. Discuss the difference between hollow and solid organs. 3. Review the anatomy and physiology of the female and male genitourinary systems. 4. Describe some special considerations related to the care of pediatric patients and geriatric patients who have experienced abdominal trauma. 5. Discuss closed abdominal injuries, providing examples of the mechanisms of injury that are likely to cause this type of trauma in a patient, as well as key signs and symptoms. 6. Discuss open abdominal injuries, including ways to distinguish low-velocity, medium-velocity, and high-velocity injuries, examples of the mechanisms of injury that would cause each, and signs and symptoms exhibited by a patient who has experienced this type of injury. 7. Describe the different ways hollow and solid organs of the abdomen can be injured and include the signs and symptoms a patient might exhibit, depending on the organ(s) involved. 8. Discuss the types of traumatic injuries that may be sustained by the organs of the male and female genitourinary systems, including the kidneys, urinary bladder, and internal and external genitalia. 9. Discuss the assessment of a patient who has experienced an abdominal or genitourinary injury. 10. Discuss special considerations related to patient privacy when assessing a patient with a genitourinary injury. 11. Determine the emergency medical care of a patient who has sustained a closed abdominal injury. 12. Discuss the emergency medical care of a patient who has sustained an open abdominal injury, including penetrating injuries and abdominal evisceration. 13. Discuss the emergency medical care of a patient who has sustained a genitourinary injury related to the kidneys, bladder, external male genitalia, female genitalia, or rectum. 14. Construct/develop a plan to demonstrate proper emergency medical care of a patient who has experienced a blunt abdominal injury. 15. Construct/develop a plan to demonstrate proper emergency medical care of a patient who has a penetrating abdominal injury with an impaled object. 16. Demonstrate how to apply a dressing to an abdominal evisceration wound.	2	2	2
Orthopaedic Injuries	1. Describe the function of the musculoskeletal system. 2. Review the anatomy and physiology of the musculoskeletal system. 3. Name the four types of forces that can cause musculoskeletal injuries. 4. Describe the various types of musculoskeletal injuries and the signs and symptoms of each. 5. Differentiate between open and closed fractures. 6. Describe the signs and symptoms of a dislocation, a sprain, and a strain. 7. Explain how to assess the severity of a musculoskeletal injury. 8. Explain the reasons for splinting at the scene versus transporting the patient immediately. 9. Explain the emergency medical care of a patient with an orthopaedic injury. 10. Explain the emergency medical care of a patient with a swollen, painful, deformed extremity (fracture). 11. Understand the need for splinting, including its principles and possible complications. 12. Describe the complications that can result from musculoskeletal injuries. 13. Recognize the characteristics of specific types of musculoskeletal injuries. 14. Explain the significance and the assessment and management of a patient with a pelvic fracture. 15. Demonstrate and follow the care of musculoskeletal injuries. 16. React and demonstrate how to apply a Hare traction splint. 17. React and demonstrate how to apply a Sager traction splint. 18. React and demonstrate how to apply a rigid splint. 19. React and demonstrate how to apply a zippered air splint. 20. Demonstrate how to apply an unzipped air splint. 21. Demonstrate how to apply a vacuum splint. 22. React and demonstrate how to splint the clavicle, the scapula, the shoulder, the humerus, the elbow, and the forearm. 23. React and demonstrate how to splint the hand and wrist. 24. React and demonstrate how to care for a patient with an amputation.	2	2	2

Environmental Emergencies	1. Describe four factors that affect how a person deals with exposure to a cold or hot environment and how each one relates to emergency medical care. 2. Explain the five different ways a body can lose heat and ways the rate and amount of heat loss or gain can be modified in an emergency situation. 3. Define and discuss hypothermia, including the signs and symptoms of its four different stages and the risk factors for developing it. 4. Explain local cold injuries and their underlying causes. 5. Explain the importance of following regional and state protocols when rewarming a patient who is experiencing moderate or severe hypothermia. 6. Describe the three forms of illness that are caused by heat exposure, including their signs and symptoms, and give examples of persons who are at the greatest risk of developing one of them. 7. Describe the process of providing emergency care to a patient who has sustained a heat injury, including assessment of the patient and management of care. 8. Define drowning and discuss its incidence, risk factors, and prevention. 9. Describe three physical laws that affect pressure in the context of diving and diving-related conditions. 10. Describe the three different types of diving emergencies, how they may occur, and their signs and symptoms. 11. List the basic rules of performing a water rescue, and discuss why rescue personnel should have a prearranged water rescue plan based on the environment in which they work. 12. List four conditions that may result in a spinal injury following a submersion incident and the steps for stabilizing a patient with a suspected spinal injury in the water. 13. Discuss recovery techniques one may need to follow when managing a patient who has been involved in a submersion incident. 14. Describe the process of providing emergency care to a patient who has been involved in a drowning or diving emergency, including assessment of the patient and management of care. 15. Discuss the types of dysbarism injuries that may be caused by high altitudes, including their signs and symptoms and emergency medical treatment in the field. 16. Discuss lightning injuries, including their incidence, risk factors, assessment, and emergency medical treatment. 17. Identify the species of spiders found in the United States that may cause life-threatening injuries, and then describe the process of providing emergency care to patients who have been bitten by each type. 18. Discuss the emergency medical care of patients who have been stung by Hymenoptera, including steps one should follow if a patient develops a severe reaction to the sting or bite. 19. Identify the species of snakes found in the United States that are venomous, and then describe the process of providing emergency care to patients who have been bitten by each type and are showing signs of envenomation. 20. Discuss the emergency medical care of patients who have been stung by scorpions or bitten by ticks, including steps one should follow if a patient develops a severe reaction to the sting or bite. 21. Discuss the emergency medical care of patients who have been stung by a coelenterate or other marine animal. 22. React and demonstrate the emergency medical treatment of local cold injuries in the field. 23. React and demonstrate using a warm-water bath to rewarm the limb of a patient who has sustained a local cold injury. 24. React and demonstrate how to treat a patient with heat cramps. 25. React and demonstrate how to treat a patient with heat exhaustion. 26. React and demonstrate how to treat a patient with heatstroke. 27. React and demonstrate how to stabilize a patient with a suspected spinal injury in the water. 28. React and demonstrate how to care for a patient who is suspected of having an air embolism or decompression sickness following a drowning or diving emergency. 29. React and demonstrate how to care for a patient who has been bitten by a pit viper and is showing signs of envenomation. 30. React and demonstrate how to care for a patient who has been bitten by a coral snake and is showing signs of envenomation. 31. React and demonstrate how to care for a patient who has sustained a coelenterate envenomation.	2	2	2
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Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Obstetrics and Neonatal Care	1. Review the anatomy and physiology of the female reproductive system and gestation. 2. Describe the normal changes that occur in the body during pregnancy. 3. Discuss the pathophysiology of the obstetric patient, including spontaneous abortion (miscarriage), ectopic pregnancy, hypertension, isoimmunization, gestational diabetes, placenta previa, abruption placenta, and trauma. 4. Recognize the need to consider two patients--the woman and the unborn fetus--when treating a pregnant trauma patient. 5. List special considerations involving pregnancy in different cultures and with teenage patients. 6. Describe commonly used obstetric terminology. 7. Outline the assessment process for pregnant patients. 8. Describe the indications of an imminent delivery. 9. Discuss assessment and management of non-delivery emergencies. 10. Differentiate between the three stages of labor. 11. Explain the steps involved in normal delivery management. 12. Explain the necessary care of the baby as the head appears. 13. Discuss Apgar scores, including how and when to obtain them. 14. Describe the procedure followed to cut and tie the umbilical cord. 15. Describe delivery of the placenta. 16. Discuss postpartum care to provide, including addressing postpartum hemorrhage. 17. Explain how to manage complications of labor, including preterm labor, fetal distress, and uterine rupture. 18. Discuss high-risk pregnancy conditions and their prehospital management, including meconium staining, multiple gestation, cephalopelvic disproportion, intrauterine fetal death, and amniotic fluid embolism. 19. Discuss complications of delivery, including breech presentation, limb presentation, shoulder dystocia, nuchal cord, and prolapsed umbilical cord. 20. Discuss postpartum complications and their prehospital management, including uterine inversion, pulmonary embolism, and spina bifida. 21. Discuss the initial steps of assessment for neonates, including drying and warming, positioning, suctioning, and stimulation. 22. Explain how to measure essential parameters including heart rate, color, and respiratory effort. 23. List the steps of the algorithm for neonatal resuscitation, including key time frames for interventions. 24. Discuss techniques for airway management during neonatal resuscitation. 25. Discuss techniques for circulation support during neonatal resuscitation. 26. Describe vascular access considerations in the neonate. 27. Determine the assessment and management of specific emergencies including apnea or inadequate respiratory effort, bradycardia, hypoglycemia, and hypovolemia. 28. Demonstrate the procedure to assist in a normal cephalic delivery. 29. Demonstrate care procedures of the infant as the head appears. 30. Demonstrate the steps to follow in postdelivery care of the infant. 31. Demonstrate how to cut and tie the umbilical cord. 32. Demonstrate how to assist in delivery of the placenta. 33. Demonstrate the postdelivery care of the woman. 34. Describe how to assist with a breech delivery in the field. 35. Describe how to assist with a limb presentation in the field. 36. List the steps of neonatal resuscitation. 37. Explain how to perform chest compressions on a neonate.	2	2	2

Pediatric Emergencies	1. Explain some of the challenges inherent in providing emergency care to pediatric patients and why effective communication with both the patient and their family members is critical to a successful outcome. 2. Describe differences in the anatomy, physiology, and pathophysiology of the pediatric patient as compared with the adult patient and their implications for the health care provider, with a focus on the following body systems: respiratory, circulatory, nervous, musculoskeletal, gastrointestinal, and integumentary. 3. Describe the steps in the primary survey for providing emergency care to a pediatric patient, including the elements of the pediatric assessment triangle (PAT), hands-on ABCDEs, transport decision considerations, and privacy issues. 4. Discuss the steps in the secondary assessment of a pediatric patient, describing what the advanced emergency medical technician (AEMT) should look for related to different body areas and the method of injury. 5. Describe the different causes of pediatric respiratory emergencies, the signs and symptoms of increased work of breathing, the difference between respiratory distress and respiratory failure, and the emergency medical care strategies used in the management of each. 6. List the possible causes of an upper and a lower airway obstruction in a pediatric patient and the steps in the management of foreign body airway obstruction. 7. List lower airway emergencies in a pediatric patient, including asthma, and possible causes, signs and symptoms, and steps in patient management. 8. Explain how to determine the correct size of an airway adjunct intended for a pediatric patient during an emergency. 9. List the different oxygen delivery device options that are available for providing oxygen to a pediatric patient, including the indications for the use of each and precautions the AEMT must take to ensure the patient's safety. 10. Discuss the most common causes of shock (hypoperfusion) in a pediatric patient, its signs and symptoms, and emergency medical management in the field. 11. Discuss the use of intravenous therapy in pediatric patients, including intraosseous access and fluid resuscitation. 12. Discuss the most common causes of altered mental status in a pediatric patient, its signs and symptoms, and emergency medical management in the field. 13. List the common causes of seizures in a pediatric patient, the different types of seizures, and their emergency medical management in the field. 14. List the common causes of meningitis, patient groups who are at the highest risk for contracting it, its signs and symptoms, special precautions, and emergency medical management in the field. 15. Discuss the types of gastrointestinal disease emergencies that might affect pediatric patients and their emergency medical management. 16. Discuss poisoning in pediatric patients, including common poison sources, signs and symptoms of poisoning, and its emergency medical management. 17. Discuss dehydration emergencies in pediatric patients, including how to gauge their severity based on key signs and symptoms, and emergency medical management. 18. Discuss the common causes of a fever emergency in a pediatric patient and the role of the AEMT regarding patient management. 19. Discuss assessment and management of a child with hypoglycemia. 20. Discuss assessment and management of a child with hyperglycemia. 21. Discuss the common causes of drowning emergencies in pediatric patients, their signs and symptoms, and emergency medical management. 22. Discuss the common causes of pediatric trauma emergencies and differentiate between injury patterns in adults, infants, and children. 23. Discuss the significance of burns in pediatric patients, their most common causes, and general guidelines an AEMT should follow when assessing patients who have sustained burns. 24. Explain the four triage categories used in the JumpSTART system for pediatric patients during disaster management. 25. Describe child abuse and neglect and its possible indicators, and then describe the medical and legal responsibilities of an AEMT when caring for a pediatric patient who is a possible victim of child abuse. 26. Discuss why managing post-traumatic stress is important for all health care professionals. 27. Discuss sudden infant death syndrome (SIDS), including its risk factors, patient assessment, and special management considerations related to the death of an infant patient.	3	4	4
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Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Pediatric Emergencies (cont'd)	28. Discuss the responsibilities of the AEMT when communicating with family or loved ones following the death of a child. 29. Demonstrate how to position the airway in a pediatric patient. 30. Demonstrate how to palpate the pulse and estimate the capillary refill time in a pediatric patient. 31. Demonstrate how to use a length-based resuscitation tape to size equipment appropriately for a pediatric patient. 32. Demonstrate how to insert an oropharyngeal airway in a pediatric patient. 33. Demonstrate how to insert a nasopharyngeal airway in a pediatric patient. 34. Demonstrate how to administer blow-by oxygen to a pediatric patient. 35. Demonstrate how to apply a nasal cannula to a pediatric patient. 36. Demonstrate how to apply a non-rebreathing mask to a pediatric patient. 37. Demonstrate how to assist ventilation of an infant or child using a bag-mask device. 38. Demonstrate how to perform one-person bag-mask device ventilation on a pediatric patient. 39. Demonstrate how to perform two-person bag-mask device ventilation on a pediatric patient. 40. Demonstrate how to obtain intraosseous access in a pediatric patient. 41. Demonstrate how to immobilize a pediatric patient who has been involved in a trauma emergency. 42. Demonstrate how to immobilize a pediatric patient who has been involved in a trauma emergency in a car seat. 43. Determine assessment options and management based on common conditions and injuries affecting pediatric patients.			
Geriatric Emergencies	1. Define the term geriatrics. 2. Discuss the economic impact of aging, independent and dependent living, advance directives, and end-of-life care. 3. Discuss generational considerations when communicating with geriatric patients and their families. 4. Discuss how to respond to nursing or skilled care facilities. 5. Explain the leading causes of death among geriatric patients. 6. Discuss the normal physiologic changes that occur in various body systems as people age. 7. Describe the pathophysiology of common conditions affecting geriatric patients. 8. Discuss psychiatric emergencies in the older population. 9. Define polypharmacy, and explain the toxicity issues that can result. 10. Know the potential implications of a patient taking multiple medications. 11. Discuss special considerations when performing the patient assessment process on a geriatric patient with a medical condition. 12. Discuss emergency medical care of a geriatric patient including fluid resuscitation. 13. Explain the GEMS diamond (Geriatric patients, Environmental assessment, Medical assessment, and Social assessment) and its role in the assessment and care of the geriatric patient. 14. Differentiate and organize assessment options and management based on common conditions and injuries affecting geriatric patients, including respiratory, cardiovascular, neurologic, endocrine, gastrointestinal, renal, and toxicologic emergencies. 15. Explain special considerations for a geriatric patient who has experienced trauma, including performing the patient assessment process on a geriatric patient with a traumatic injury. 16. Discuss elder abuse and neglect, and its implications in assessment and management of the patient.	2	3	4

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Patients with Special Challenges	1. List examples of patients with special needs whom advanced emergency medical technicians (AEMTs) may encounter during an emergency. 2. Describe how to interact with patients with special needs, based on the nature of their impairment. 3. Differentiate assessment options and management based on the special patient care considerations that may be required when providing emergency medical care to patients with developmental disabilities, including patients with autism spectrum disorder, Down syndrome, and prior brain injuries. 4. Describe different types of visual impairments and the special patient care considerations that may be required when providing emergency medical care for these patients depending on the level of their disability. 5. Describe different types of hearing impairments and the special patient care considerations that may be required when providing emergency medical care for these patients, including tips for effective communication. 6. Describe the four types of hearing aids that may be worn by patients, including troubleshooting strategies that may help to fix a hearing aid that is not working. 7. Differentiate assessment options and management based on the special patient care considerations that may be required when providing emergency medical care to patients who have the following conditions: cerebral palsy, cystic fibrosis, multiple sclerosis, muscular dystrophy, spina bifida, and paralysis. 8. Define obesity and bariatrics. 9. Discuss the special patient care considerations that may be required when providing emergency medical care to bariatric patients, including the best way to move a patient with obesity. 10. Discuss the special patient care considerations that may be required when providing emergency medical care to patients who rely on a form of medical technology assistance, including the following: tracheostomy tube; mechanical ventilator; apnea monitor; internal cardiac pacemaker; left ventricular assist device; external defibrillator vest; intra-aortic balloon pump; central venous catheter; gastrostomy tube; shunt; vagus nerve stimulator; and colostomy, ileostomy, or urostomy bag. 11. Describe the assessment and management process for patients with special needs. 12. Describe home care, the types of patients it serves, and the services it encompasses. 13. Discuss hospice and palliative care. 14. Explain the responsibilities of AEMTs when responding to calls for terminally ill patients who have do not resuscitate orders. 15. Discuss the issues of poverty and homelessness in the United States, including the negative effects on a person's health and the role of AEMTs as patient advocates. 16. Demonstrate different strategies to communicate effectively with a patient who is hard of hearing or deaf. 17. Explain how to suction and clean a tracheostomy.	2	1	2
Transport Operations	1. Describe the nine phases of an ambulance call, including examples of key tasks that advanced emergency medical technicians (AEMTs) perform during each phase. 2. Describe the medical equipment carried on an ambulance, including examples of supplies that are included in each main category of the ambulance equipment checklist. 3. Provide examples of the safety and operations equipment carried on an ambulance, including how each item might be used by AEMTs in an emergency. 4. Explain the importance of performing regular vehicle inspections. 5. List the specific parts of an ambulance that should be inspected daily. 6. Describe the minimum information that should be gathered by the emergency medical services (EMS) dispatcher for every emergency call. 7. Provide examples of some high-risk situations and hazards that may affect the operation of the ambulance and the safety of its passengers during both pretransport and transport. 8. Discuss specific considerations that are required for ensuring scene safety, including personal safety, patient safety, and traffic control. 9. Describe the key elements related to patient information that must be included in the patient care report upon patient delivery to the hospital. 10. Summarize the tasks that must be completed by AEMTs at the completion of an ambulance call. 11. Define the terms cleaning, disinfection, high-level disinfection, and sterilization.	1	1	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Transport Operations (cont'd)	12. Discuss the guidelines for driving an ambulance safely and defensively, including key steps EMS personnel can take to improve safety while en route to the scene, the hospital, and the station. 13. Describe the elements that dictate the use of emergency warning lights and siren to the scene and to the hospital and the factors required to perform a risk-benefit analysis regarding the use of these devices. 14. Give examples of the specific, limited privileges that are provided to emergency vehicle drivers by most state laws and regulations. 15. Explain why using police escorts and crossing intersections pose additional risks to EMS personnel during transport, including the special considerations related to each. 16. Describe the capabilities, protocols, and methods for air medical operations. 17. Describe key scene safety considerations when preparing for the medical evacuation of a patient by helicopter, including establishing a landing zone, mitigating onsite hazards, and approaching the aircraft. 18. Demonstrate how to perform a daily inspection of an ambulance. 19. Demonstrate how to use defensive ambulance driving techniques. 20. Demonstrate how to clean and disinfect the ambulance and equipment during the postrun phase. 21. Demonstrate how to operate safely around an air ambulance.			
Vehicle Extrication, Special Rescue, and Hazardous Materials	1. Explain the responsibilities of advanced emergency medical technicians (AEMTs) in patient rescue and extrication. 2. Explain the terms extrication and entrapment. 3. Discuss how to ensure safety at the scene of a rescue incident, including scene size-up and the selection of the proper personal protective equipment and additional necessary gear. 4. List the ten phases of extrication and the role of AEMTs during each one. 5. Discuss the situational awareness factors AEMTs must use to ensure safety at the site of a vehicle extrication. 6. Name some vehicle safety system components that may be hazardous to both AEMTs and patients following a motor vehicle crash; include how AEMTs can mitigate these dangers. 7. Explain the different factors that must be considered before attempting to gain access to the patient during an incident that requires extrication. 8. Discuss patient care considerations related to assisting with rapid extrication, providing emergency care to a trapped patient, and removing and transferring a patient. 9. Give examples of simple access and complex access in vehicle extrication. 10. Discuss situations that would require special technical rescue teams and the AEMT's role in these situations. 11. Describe tactical situations and the techniques used to stay safe at these incidents. 12. Describe some of the unique aspects of responding to a hazardous materials (hazmat) incident. 13. Recall the entry-level training or experience requirements identified by the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation for AEMTs responding to a hazmat incident. 14. Describe the types of containers used to store hazardous materials. 15. Discuss the specific reference materials AEMTs can use to recognize a hazmat incident. 16. Explain the role of AEMTs during a hazmat incident before and after the hazmat team arrives and the precautions required to ensure the safety of civilians and responders. 17. Name the three control zones established at a hazmat incident, the characteristics of each zone, and the personnel who work within each one. 18. Describe the four levels of personal protective equipment required at a hazmat incident to protect responders from injury and contamination. 19. Explain patient care at a hazmat incident; include the special requirements that are necessary for those patients who require immediate treatment and transport prior to full decontamination. 20. Using an example, demonstrate how to correctly identify the US Department of Transportation's labels, placards, and markings used to designate hazardous materials. 21. Demonstrate the ability to use a variety of reference materials to identify a hazardous material.	1	1	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Incident Management	1. Describe the National Incident Management System (NIMS) and its major components. 2. Describe the purpose of the incident command system (ICS) and its organizational structure. 3. Explain the role of emergency medical services (EMS) response within the ICS. 4. Describe how the ICS assists EMS in ensuring both personal safety and the safety of bystanders, health care professionals, and patients during an emergency. 5. Describe the role of an advanced emergency medical technician (AEMT) in establishing command under the ICS. 6. Describe the purpose of medical incident command within the ICS and its organizational structure. 7. Describe the specific conditions that would define a situation as a mass-casualty incident (MCI); include examples. 8. Describe what occurs during primary and secondary triage, how the four triage categories are assigned to patients on the scene, and how destination decisions regarding triaged patients are made. 9. Describe how to perform the START and JumpSTART triage methods. 10. Explain how a disaster differs from an MCI. 11. Describe the role of the AEMT during a disaster operation. 12. Demonstrate how to perform triage based on a fictitious scenario that involves a mass-casualty incident.	1	1	0
Terrorism Response and Disaster Management	1. Describe international terrorism and domestic terrorism, and include some examples of incidents that have been caused by each one. 2. List examples of four different types of goals that commonly motivate terrorist groups to stage a terrorist attack. 3. Describe weapons of mass destruction (WMDs), and include examples of the five categories of weapons that are considered WMDs. 4. Describe how the National Terrorism Advisory System relates to the daily activities of an advanced emergency medical technician (AEMT) and their ability to respond to and survive a terrorist attack. 5. Describe key observations one must make on each call to assist in the determination of whether an incident is related to terrorism. 6. Describe the critical response actions one must perform at a suspected terrorist event related to establishing and reassessing scene safety, personnel protection, notification procedures, and establishing command. 7. Discuss the history of chemical agents, the four main classifications, routes of exposure, effects on the patient, and patient care. 8. Explain the role of emergency medical services in relation to syndromic surveillance and points of distribution during a biologic event. 9. Discuss three categories of biologic agents, the routes of exposure, effects on the patient, and patient care. 10. Describe the history of nuclear/radiologic devices, sources of radiologic materials and dispersal devices, medical management of the patient, and protective measures to take during a nuclear/radiologic incident. 11. Describe the mechanisms of injury caused by incendiary and explosive devices, including the types and severity of blast injuries. 12. Demonstrate how to manage a patient who has been exposed to a chemical agent. 13. Demonstrate the use of the DuoDote Auto-Injector and/or the Antidote Treatment Nerve Agent Auto-Injector. 14. Demonstrate the steps one can take to establish and reassess scene safety based on a scenario of a terrorist event.	1	1	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Clinical Care Experiences, Inter-professional Communication and Collaborative Practice in a Pre-hospital Setting: A. Ambulance operations B. Scene size-up C. Initial assessment D. Focused history and physical and exam E. Field diagnosis and treatment plan F. Ongoing assessment and patient transfer	1. Apply critical thinking and decision-making skills as an AEMT. 2. Identify and apply self-confidence, understanding, and proficiency in the operation of a Basic Life Support ambulance. 3. Demonstrate and improve proficiency in timely patient assessments and treatments at the scene of an emergency and in a moving ambulance. 4. Increase familiarity with ambulance equipment. 5. Demonstrate the following: proper radio use and reporting procedures; proper report writing skills; recognition of hazards to oneself and one's patients; use of patient restraints; and preparation of advanced equipment such as EKG monitor/defibrillators, intra-venous solutions, glucometers, and advanced airways for use in Advanced Life Support situations. 6. Prepare ambulance for readiness and efficiency during operation. 7. Develop and improve team leadership and scene choreography skills. 8. Improve communication with other cultures and develop an awareness of social and healthcare issues in those cultures. 9. Construct/formulate a plan to successfully lead a Basic Life Support ambulance team in treating a patient in a variety of medical and trauma calls.	0	0	75

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	105