



INSTRUCTIONAL PACKAGE

EMS 109

Emergency Medical Care II

201920
Spring/2020

INSTRUCTIONAL PACKAGE

PART I: COURSE INFORMATION

Effective Term: 201920

COURSE PREFIX: EMS 109

COURSE TITLE: Emergency Medical Care II

CONTACT HOURS: 6-3-7

CREDIT HOURS: 7

RATIONALE FOR THE COURSE:

This course is the second in a sequence of courses covering the initial knowledge and skills needed in providing pre-hospital emergency medical care to critically injured and ill patients.

COURSE DESCRIPTION:

This course is a study of medical emergencies, operations, pediatrics and other special populations as it relates to the provision of pre-hospital emergency medical care to critically ill and injured patients.

PREREQUISITES/CO-REQUISITES:

Prerequisite: 18 years old by the last day of class, HS Diploma or GED

EMS 104

Co-Requisite: EMS 212

REQUIRED MATERIALS:

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks. [BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

Watch with second hand

ADDITIONAL REQUIREMENTS:

Receives calls from dispatchers, responds verbally to emergency calls, reads maps, drives ambulances to emergency sites, uses most expeditious route, and observes traffic ordinances and regulations. Works as a member of a two-person team.

Determines nature and extent of illness or injury, takes pulse, blood pressure, visually observes changes in skin color, auscultate breath sounds, makes determination regarding patient status, establishes priority for emergency care, renders appropriate emergency care (based upon competency and certification level); may administer intravenous drugs for fluid replacement as directed by a physician and based upon competency and certification level. May use equipment (based upon competency and certification level) such as but not limited to, defibrillator, electrocardiograph, inserts oral airway adjuncts, maintains open airways and ventilates patients.

Assists with lifting, carrying, and transporting patient in ambulance to a medical facility. Reassures patients and bystanders, avoids mishandling patient and undue haste, and searches for medical identification emblem to aid in care. Extricates patients from entrapment, assess extent of injury, uses prescribed techniques and appliances, radios dispatcher for additional assistance or services, provides light rescue service if required, provides additional emergency care following established protocols.

Complies with regulations in handling deceased, notifies authorities, and arranges for protection of property and evidence at scene. Determines appropriate facility to which patient will be transported, report nature and extent of injuries or illness to the facility, ask for direction from hospital physician or emergency department (based upon competency and certification level). Observes patient enroute and administers care as directed by physician or emergency department or according to published protocol based on competency and certification level. Identifies diagnostic signs that require communication with facility. Assist in removing patient from ambulance and into emergency facility. Reports verbally and in writing observations about and care of patients at the scene and enroute to facility, provides assistance to emergency staff as required.

Replaces supplies, prepares and / or sends used supplies for sterilization and / or disposal in accordance with state and OSHA regulations and published standard operating procedures. Checks all equipment for future readiness, maintains ambulance in operable condition, ensures ambulance cleanliness and orderliness of equipment and supplies, decontaminates vehicle interior determines vehicle readiness by checking oil, gas, water in battery and radiator, and tire pressure, maintains familiarity with all specialized equipment.

ALL EMT's MUST BE ABLE TO PERFORM THESE ESSENTIAL JOB FUNCTIONS:

Ability to communicate verbally, via telephone and radio equipment;

Ability to lift, carry, and balance up to 125 pounds (250 pounds with assistance);

Ability to read and interpret written, oral, and diagnostic form instructions;

Ability to use good sound judgment and remain calm in high-stress situations;

Ability to work effectively in an environment with loud noises and flashing lights;

Ability to function efficiently throughout an entire work shift;

Ability to calculate weight and volume ratios and read small print, both under life threatening time constraints;

Ability to read and understand English language manuals and road maps;
Accurately discern street signs and address numbers;

Ability to interview patient, family members, and bystanders;

Ability to document, in writing, all relevant information in prescribed format in light of legal ramifications of such;

Ability to converse in English with co-workers and hospital staff as to status of patient;

Good manual dexterity, with ability to perform all tasks related to highest quality patient care;

Ability to bend, stoop, and crawl on uneven terrain;

Ability to withstand varied environmental conditions such as extreme heat, cold, and moisture;

Ability to work in low light, confined spaces and other dangerous environments.

Students must be 18 years old by the last day of class and possess a high school diploma or GED.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L) HGTC's student portal for course materials including quizzes, FISDAP, and Navigate 2.

WaveNet and D2L email access.

STUDENT IDENTIFICATION VERIFICATION

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. The prior information includes the use of your phone for text messaging, social internet access, or other uses not related to the class lecture or lab. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

Part II: Student Learning Outcomes

To prepare competent entry-level Emergency Medical Technician in the cognitive (knowledge), psychomotor (skills) and affective (behavior) domains.

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Upon completion of the course, the student will have been provided with the knowledge and skills necessary to be able to:

1. Utilize universal Precautions while providing patient care.
2. Comprehend the diagnostic signs and symptoms of the patient suffering from a traumatic injury.
3. Perform the necessary steps to properly immobilize a trauma patient.
4. Perform the necessary steps to provide the treatment for shock to a traumatically injured patient.
5. Comprehend the diagnostic signs and symptoms of a patient suffering from an obstetrical emergency.
6. Possess a basic understanding of EMS Operations including: patient triage, mass casualty priorities, and hazardous materials awareness.
7. Demonstrate the ability to complete a patient care report including a summation of treatment provided to the receiving facility or transporting ambulance.

Module #1 – Chapters 24 - 27

Material Covered:

Chapter 24: Trauma Overview

Chapter 25: Bleeding

Chapter 26: Soft-Tissue Trauma

Chapter 27: Face and Neck Injuries

Assessments:

Chapter quizzes located in Desire2Learn/EMS Testing

Module #1 Test

Learning Outcomes:

Chapter 24: Trauma Overview

1. Define the terms mechanism of injury (MOI), blunt trauma, and penetrating trauma. (pp 847, 850)
2. Explain the relationship of the MOI to potential energy, kinetic energy, and work. (pp 847–849)
3. Provide examples of the MOI that would cause blunt and penetrating trauma to occur. (pp 850–861)
4. Describe the five types of motor vehicle crashes, the injury patterns associated with each one, and how each relates to the index of suspicion of life-threatening injuries. (pp 853–856)
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. (pp 858–859)
6. Discuss the effects of high-, medium-, and low-velocity penetrating trauma on the body and how an understanding of each type helps EMTs form an index of suspicion about unseen life-threatening injuries. (pp 859–861)
7. Discuss primary, secondary, tertiary, and miscellaneous blast injuries and the anticipated damage each one will cause to the body. (pp 862–864)
8. Describe multisystem trauma and the special considerations that are required for patients who fit this category. (p 864)
9. Explain the major components of trauma patient assessment; include considerations related to whether the method of injury was significant or nonsignificant. (p 865)
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. (pp 865–866)
11. Explain a general overview of multisystem trauma patient management. (pp 867, 869)
12. Explain trauma patient management in relation to scene time and transport selection. (p 867)
13. List the Association of Air Medical Services criteria for the appropriate use of emergency air medical services. (p 867)
14. List the American College of Surgeons' Committee on Trauma classification of trauma centers. (pp 867–868)

15. Explain the American College of Surgeon's Committee on Trauma and the Centers for Disease Control and Prevention field triage decision scheme as it relates to making an appropriate destination selection for a trauma patient. (pp 869–870)

Learning Outcomes:

Chapter 25: Bleeding

1. Describe the general structure of the circulatory system and the function of its different parts, including the heart, arteries, veins, and capillaries. (pp 879–880)
2. Explain the significance of bleeding caused by blunt force trauma, including the importance of perfusion. (pp 881–882)
3. Discuss hypovolemic shock as a result of bleeding, including the signs of shock. (pp 882–886)
4. Explain the importance of following standard precautions when treating a patient with external bleeding. (p 883)
5. Describe the characteristics of external bleeding, including the identification of the following types of bleeding: arterial, venous, and capillary. (pp 883–884)
6. Explain how to determine the nature of the illness (NOI) for internal bleeding, including identifying possible traumatic and nontraumatic sources. (p 885)
7. Identify the signs and symptoms of internal bleeding. (pp 885–886)
8. Discuss internal bleeding in terms of the different mechanisms of injury (MOI) and their associated internal bleeding sources. (p 885)
9. Explain how to conduct a primary assessment, including identification of life threats beyond bleeding, ensuring a patent airway, and making a transport decision. (pp 886–887)
10. Explain how to assess a patient with external or internal bleeding, including physical examination, vital signs, and use of monitoring devices. (p 888)
11. Explain the emergency medical care of the patient with external bleeding. (pp 888–890)
12. Explain the emergency medical care of the patient with internal bleeding. (p 897)

Learning Outcomes:

Chapter 26: Soft-Tissue Trauma

1. Describe the anatomy of the skin; include the layers of the skin. (pp 905–906)
2. Know the functions of the skin. (p 906)
3. Name the three types of soft-tissue injuries. (p 907)
4. Describe the types of closed soft-tissue injuries. (pp 907–909)
5. Describe the types of open soft-tissue injuries. (pp 909–912)
6. Explain patient assessment of closed and open injuries. (pp 912–918)
7. Explain patient assessment of closed and open injuries in relation to airway management. (pp 914–915)
8. Explain the emergency medical care for closed and open injuries. (pp 918–919)

9. Explain the emergency medical care for a patient with an open wound to the abdomen. (p 919–920)
10. Explain the emergency medical care for an impaled object. (pp 920–921)
11. Explain the emergency medical care for neck injuries. (p 921–922)
12. Describe the steps of the emergency treatment of small animal bites, human bites, and rabies. (pp 922–923)
13. Explain how the seriousness of a burn is related to its depth and extent. (pp 924–925)
14. Define superficial, partial-thickness, and full-thickness burns; include the characteristics of each burn (pp 925–926)
15. Explain the primary assessment of a burn patient. (pp 928–929)
16. Explain the emergency medical care for burn injuries. (p 931)
17. Describe the emergency management of chemical, electrical, thermal, inhalation, and radiation burns. (pp 931–938)
18. Know the functions of sterile dressings and bandages. (pp 938–939)

Learning Outcomes:

Chapter 27: Face and Neck Injuries

1. Describe the anatomy and physiology of the head, face, and neck; include major structures and specific important landmarks of which EMTs must be aware. (pp 947–950)
2. Describe the factors that may cause obstruction of the upper airway following a facial injury. (pp 950–951)
3. Discuss the different types of facial injuries and patient care considerations related to each one. (pp 950–951)
4. Explain the emergency care of a patient who has sustained face and neck injuries; include assessment of the patient, review of signs and symptoms, and management of care. (pp 950–956)
5. Explain the emergency care of a patient with soft-tissue wounds of the face and neck. (pp 955–956)
6. Explain the emergency care of a patient with an eye injury based on the following scenarios: foreign object, impaled object, burns, lacerations, blunt trauma, closed head injuries, and blast injuries. (pp 956–965)
7. Describe the three different causes of a burn injury to the eye and patient management considerations related to each one. (pp 959–961)
8. Explain the emergency care of a patient with injuries of the nose. (pp 965–967)
9. Explain the emergency care of a patient with injuries of the ear; include lacerations and foreign body insertions. (pp 967–969)
10. Explain the physical findings and emergency care of a patient with a facial fracture. (pp 969–970)
11. Explain the emergency care of a patient with dental and cheek injuries; include how to deal with an avulsed tooth. (p 970)
12. Explain the emergency care of a patient with an upper airway injury caused by blunt trauma. (pp 970–971)

13. Explain the emergency care of a patient with a penetrating injury to the neck; include how to control regular and life-threatening bleeding. (pp 971–972)

Module #2 – Chapters 28 - 30

Material Covered:

Chapter 28: Head and Spinal Injuries

Chapter 29: Chest Injuries

Chapter 30: Abdominal and Genitourinary Injuries

Assessments:

Chapter quizzes located in Desire2Learn / EMS Testing

Module #2 Test

Learning Outcomes:

Chapter 28: Head and Spinal Injuries

1. Describe the anatomy and physiology of the nervous system, including its divisions into the central nervous system (CNS) and peripheral nervous system (PNS), and the structures and functions of each. (pp 981–984)
2. Explain the functions of both the somatic and autonomic nervous systems. (p 984)
3. List the major bones of the skull and spinal column and their related structures; include their functions as they relate to the nervous system. (pp 984–986)
4. Explain the different types of head injuries, their potential mechanism of injury (MOI), and general signs and symptoms of a head injury that the EMT should consider when performing a patient assessment. (pp 986–991)
5. Define traumatic brain injury (TBI). (p 988)
6. Explain the difference between a primary (direct) injury and a secondary (indirect) injury; include examples of possible MOIs that may cause each one. (p 988)
7. Describe 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. (pp 988–991)
8. Describe the different types of injuries that may damage the cervical, thoracic, or lumbar spine; include examples of possible MOIs that may cause each one. (p 991)
9. Explain the steps in the patient assessment process for a person who has a suspected head or spine injury, including specific variations that may be required as related to the type of injury. (pp 991–1001)
10. List the mechanisms of injury that cause a high index of suspicion for the possibility of a head or spinal injury. (p 992)
11. Explain emergency medical care of a patient with a head injury; include the three general principles designed to protect and maintain the critical functions of the CNS and ways to determine if the patient has a traumatic brain injury. (pp 1001–1003)

12. Explain emergency medical care of a patient with a spinal injury; include 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. (pp 1003–1007)
13. Explain the process of preparing patients who have suspected head or spinal injuries for transport; include 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. (pp 1007–1018)
14. Explain the different circumstances in which a helmet should be left on or taken off a patient with a possible head or spinal injury. (p 1018)
15. List the steps EMTs must follow to remove a helmet, including the alternate method for removing a football helmet. (pp 1018–1022)
16. Discuss age-related variations that are required when providing emergency care to a pediatric patient who has a suspected head or spine injury. (p 1021)

Chapter 29: Chest Injuries

1. Explain the mechanics of ventilation in relation to chest injuries. (pp 1033–1034)
2. Describe the differences between an open and closed chest injury. (pp 1034–1035)
3. Recognize the signs of chest injury. (pp 1035–1036)
4. Describe the management of a patient with a suspected chest injury, including pneumothorax, hemothorax, cardiac tamponade, rib fractures, flail chest, pulmonary contusion, traumatic asphyxia, blunt myocardial injury, commotio cordis, and laceration of the great vessels. (pp 1041–1048)
5. Recognize the complications that can accompany chest injuries. (pp 1041–1048)
6. Explain the complications of a patient with an open pneumothorax (sucking chest wound). (pp 1041–1042)
7. Differentiate between a pneumothorax (open, simple, and tension) and hemothorax. (pp 1041–1044)
8. Describe the complications of cardiac tamponade. (p 1045)
9. Describe the complications of rib fractures. (p 1045)
10. Describe the complications of a patient with a flail chest. (pp 1045–1046)

Chapter 30: Abdominal and Genitourinary

1. Describe the anatomy and physiology of the abdomen; include an explanation of abdominal quadrants and boundaries and the difference between hollow and solid organs. (pp 1057–1059)
2. Describe some special considerations related to the care of pediatric patients and geriatric patients who have experienced abdominal trauma. (pp 1058–1059, 1065)
3. Define closed abdominal injuries; provide examples of the mechanisms of injury (MOI) likely to cause this type of trauma, and common signs and symptoms exhibited by patients who have experienced this type of injury. (pp 1059–1060)

4. Define open abdominal injuries; include the three common velocity levels that distinguish these injuries, provide examples of the MOI that would cause each, and common signs and symptoms exhibited by patients who have experienced this type of injury. (pp 1061–1062)
5. Describe the different ways hollow and solid organs of the abdomen can be injured, and include the common signs and symptoms exhibited by patients depending on the organ(s) involved. (pp 1062–1064)
6. Explain assessment of a patient who has experienced an abdominal injury; include common indicators that help determine the MOI and whether it is a significant or insignificant MOI. (pp 1064–1069)
7. Explain the emergency medical care of a patient who has sustained a closed abdominal injury, including blunt trauma caused by a seatbelt or air bag. (pp 1069–1070)
8. Explain the emergency medical care of a patient who has sustained an open abdominal injury, including penetrating injuries and abdominal evisceration. (pp 1070–1072)
9. Describe the anatomy and physiology of the female and male genitourinary systems; include the differences between hollow and solid organs. (pp 1072–1073)
10. Discuss the types of traumatic injuries sustained by the male and female genitourinary system, including the kidneys, urinary bladder, and internal and external genitalia. (pp 1073–1075)
11. Explain assessment of a patient who has experienced a genitourinary injury; include special considerations related to patient privacy and determining the MOI. (pp 1075–1077)
12. Explain the emergency medical care of a patient who has sustained a genitourinary injury to the kidneys, bladder, external male genitalia, female genitalia, and rectum. (pp 1077–1079)
13. Explain special considerations related to a patient who has experienced a genitourinary injury caused by a sexual assault, including patient treatment, criminal implications, and evidence management. (p 1079)

Module #3 – Chapters 31 - 34

Material Covered:

Chapter 31: Orthopaedic Injuries

Chapter 32: Environmental Injuries

Chapter 33: Obstetrics and Neonatal Care

Chapter 34: Pediatric Emergencies

Assessments:

Chapter quizzes located in Desire2Learn / EMS Testing

Module #3 Test

Learning Outcomes:

Chapter 31: Orthopaedic Injuries

1. Describe the anatomy and physiology of the musculoskeletal system. (pp 1087–1091)
2. Name the four mechanisms of injury. (pp 1092–1093)
3. Describe the different types of musculoskeletal injuries, including fractures, dislocations, amputations, sprains, and strains. (pp 1092–1098)
4. Recognize the characteristics of specific types of musculoskeletal injuries. (pp 1092–1099, 1115–1132)

5. Differentiate between open and closed fractures. (p 1093)
6. Explain how to assess the severity of an injury. (pp 1098–1099)
7. Describe the emergency medical care of the patient with an orthopaedic injury. (pp 1103–1132)
8. Describe the emergency medical care of the patient with a swollen, painful, deformed extremity (fracture). (pp 1103–1130)
9. Discuss the need for, general rules of, and possible complications of splinting. (pp 1104–1105)
10. Explain the reasons for splinting fractures, dislocations, and sprains at the scene versus transporting the patient immediately. (pp 1104–1105)
11. Describe the emergency medical care of the patient with an amputation. (p 1132)

Chapter 32: Environmental Injuries

1. Identify the four factors that affect how a person deals with exposure to a cold or hot environment. (pp 1141–1142)
2. Describe the five ways heat loss occurs in the body, and how the rate and amount of heat loss or gain can be modified in an emergency situation. (pp 1142–1143)
3. Describe the four general stages of hypothermia. (pp 1143–1144)
4. Describe local cold injuries and their underlying causes. (pp xx)
5. Describe the process of providing emergency care to a patient who has sustained a cold injury, including assessment of the patient, review of signs and symptoms, and management of care. (pp 1145–1146)
6. Explain the importance of following local protocols when rewarming a patient who is experiencing moderate or severe hypothermia. (p 1149)
7. Describe the three emergencies that are caused by heat exposure, including the risk factors, signs, and symptoms. (pp 1151–1152)
8. Describe the process of providing emergency care to a patient who is experiencing a heat emergency, including assessment of the patient, review of signs and symptoms, and management of care. (pp 1152–1157)
9. Define drowning, including its incidence, risk factors, and prevention. (pp 1157–1158, 1165)
10. List the basic rules of performing a water and ice rescue. (p 1158)
11. Explain why EMTs should have a prearranged rescue plan based on the environment in which they work. (p 1158)
12. List five 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. (pp 1157–1160)
13. Discuss recovery techniques and resuscitation efforts EMTs may need to follow when managing a patient who has been involved in a submersion incident. (p 1160)
14. Describe the three types of diving emergencies, how they may occur, and their signs and symptoms. (pp 1160–1162)
15. 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, review of signs and symptoms, and management of care. (pp 1162–1164)

16. Discuss the types of dysbarism injuries, including their incidence, risk factors, signs and symptoms, and emergency medical treatment. (p 1165)
17. Discuss lightning injuries, including their incidence, risk factors, signs and symptoms, and emergency medical treatment. (pp 1165–1166)
18. Describe the process of providing emergency care to patients who have been bitten by each of the following venomous spiders: (pp 1166–1167)
 - Black widow spider
 - Brown recluse spider
19. Describe the process of providing emergency care to a patient who has sustained a bite or sting from each of the following insects and arachnids, including steps the EMT should follow if a patient develops a severe reaction to the sting or bite: (pp 1167–1168, 1171–1172)
 - Hymenoptera (bees, wasps, yellow jackets, and ants)
 - Scorpions
 - Ticks
20. Describe the process of providing emergency care to a patient who has been bitten by each of the following types of snake and is showing signs of envenomation. (pp 1168–1171)
 - Pit viper
 - Coral snake
21. Describe the process of providing emergency care to a patient who has been stung by a coelenterate or other marine animal. (p 1173)

Chapter 33: Obstetrics and Neonatal Care

1. Identify the anatomy and physiology of the female reproductive system. (pp 1183–1185)
2. Explain the normal changes that occur in the body during pregnancy. (pp 1185–1186)
3. Recognize complications of pregnancy including abuse, substance abuse, hypertensive disorders, bleeding, spontaneous abortion (miscarriage), and gestational diabetes. (pp 1186–1189)
4. Discuss the need to consider two patients—the woman and the unborn fetus—when treating a pregnant trauma patient. (pp 1189–1190)
5. Discuss special considerations involving pregnancy in different cultures and with teenage patients. (pp 1190–1191)
6. Explain assessment of the pregnant patient. (pp 1191–1193)
7. Explain the significance of meconium in the amniotic fluid. (p 1192)
8. Differentiate among the three stages of labor. (pp 1193–1194)
9. Describe the indications of an imminent delivery. (p 1195)
10. Explain the steps involved in normal delivery management. (pp 1194–1201)
11. List the contents of an obstetrics kit. (p 1195)
12. Explain the necessary care of the fetus as the head appears. (p 1200)

13. Describe the procedure followed to clamp and cut the umbilical cord. (pp 1199-1201)
14. Describe delivery of the placenta. (pp 1201-1202)
15. Understand the steps to take in neonatal assessment and resuscitation. (pp 1202-1206)
16. Recognize complicated delivery emergencies including breech presentations, limb presentations, umbilical cord prolapse, spina bifida, multiple gestation, premature newborns, postterm pregnancy, fetal demise, and delivery without sterile supplies. (pp 1206-1209)
17. Describe postpartum complications and how to treat them. (pp 1209-1210)

Chapter 34: 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 his or her family members is critical to a successful outcome. (p 1218)
2. Discuss the physical and cognitive developmental stages of an infant, including health risks, signs that may indicate illness, and patient assessment. (pp 1219-1220)
3. Discuss the physical and cognitive developmental stages of a toddler, including health risks, signs that may indicate illness, and patient assessment. (p 1220-1221)
4. Discuss the physical and cognitive developmental stages of a preschool-age child, including health risks, signs that may indicate illness, and patient assessment. (p 1221-1222)
5. Discuss the physical and cognitive developmental stages of a school-age child, including health risks, signs that may indicate illness, and patient assessment. (p 1222)
6. Discuss the physical and cognitive developmental stages of an adolescent, including health risks, signs that may indicate illness, and privacy issues. (p 1222-1223)
7. Describe differences in the anatomy and physiology of the pediatric patient compared to the adult patient and their implications for EMTs, with a focus on the following body systems: respiratory, circulatory, nervous, gastrointestinal, musculoskeletal, and integumentary. (p 1223-1226)
8. Describe the differences in the pathophysiology of the pediatric patient compared to the adult patient and their implications for EMTs, with a focus on the following body systems: respiratory, circulatory, nervous, gastrointestinal, musculoskeletal, and integumentary. (p 1224-1226)
9. Explain the steps in the primary assessment of a pediatric patient, including the elements of the pediatric assessment triangle (PAT), hands-on ABCs, transport decision considerations, and privacy issues. (p 1227-1236)
10. Explain the steps in the secondary assessment of a pediatric patient, including what EMTs should look for related to different body areas and the method of injury. (p 1236-1240)
11. Describe the emergency care of a pediatric patient in respiratory distress, including the different causes of pediatric respiratory emergencies, the signs and symptoms of increased work of breathing, and the difference between respiratory distress and respiratory failure. (p 1228-1229, 1240-1253)
12. 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. (p 1241-1243)

13. Describe asthma; its possible causes, signs and symptoms; and steps in the management of a pediatric patient who is experiencing an asthma attack. (p 1243–1244)
14. Explain how to determine the correct size of an airway adjunct intended for a pediatric patient during an emergency. (p 1245–1249)
15. List the different oxygen delivery devices that are available for providing oxygen to a pediatric patient, including the indications for the use of each and precautions EMTs must take to ensure the patient's safety. (p 1249–1253)
16. Describe the emergency care of a pediatric patient who is in shock (hypoperfusion), including common causes, signs, and symptoms. (p 1253–1255)
17. Describe the emergency care of a pediatric patient with an altered mental status, including common causes, signs, and symptoms. (p 1255)
18. Describe the emergency care of a pediatric patient who has experienced a seizure, including the different types of seizures, common causes, signs, and symptoms. (p 1255–1256)
19. Describe the emergency care of a pediatric patient with meningitis, including common causes, signs, symptoms, and special precautions. (p 1256–1257)
20. Describe the emergency care of a pediatric patient who is experiencing a gastrointestinal emergency, including common causes, signs, and symptoms. (p 1257–1258)
21. Describe the emergency care of a pediatric patient who has been poisoned, including common sources of poison, signs and symptoms. (p 1258–1259)
22. Describe the emergency care of a pediatric patient who is dehydrated, including how to gauge the severity of dehydration based on key signs and symptoms. (p 1250–1260)
23. Describe the emergency care of a pediatric patient who is experiencing a fever emergency, including common causes. (p 1260–1261)
24. Describe the emergency care of a pediatric patient who has experienced a drowning emergency, including common causes, signs, and symptoms. (p 1261)
25. Discuss the common causes of pediatric trauma emergencies; include how to differentiate between injury patterns in adults, infants, and children. (p 1261–1267)
26. Discuss the significance of burns in pediatric patients, their most common causes, and general guidelines EMTs should follow when assessing patients who have sustained burns. (p 1266–1267)
27. Explain the four triage categories used in the JumpSTART system for pediatric patients during disaster management. (p 1267–1268)
28. Describe child abuse and neglect and its possible indicators, including the medical and legal responsibilities of EMTs when caring for a pediatric patient who is a possible victim of child abuse. (pp 1268–1271)
29. Discuss sudden infant death syndrome (SIDS), including its risk factors, patient assessment, and special management considerations related to the death of an infant patient. (p 1271–1272)
30. Discuss the responsibilities of EMTs when communicating with a family or loved ones following the death of a child. (p 1272–1273)
31. Discuss some positive ways EMTs may cope with the death of a pediatric patient and why managing posttraumatic stress is important for all health care professionals. (p 1273)

Module #4 – Chapters 35 - 37

Material Covered:

Chapter 35: Geriatric Injuries

Chapter 36: Emergencies for Patient's with Special Challenges

Chapter 37: Transport Operations

Chapter 38: Incident Management

Assessments:

Chapter quizzes located in Desire2Learn / EMS Testing

Module #4 Test

Learning Outcomes:

Chapter 35: Geriatric Emergencies

1. Define the term "geriatrics." (p 1283)
2. Recognize some of the special aspects of the lives of older people. (pp 1283–1285)
3. Discuss generational considerations when communicating with a geriatric patient. (pp 1283–1284)
4. Describe the common complaints and the leading causes of death in older people. (p 1285)
5. Discuss the physiologic changes associated with the aging process and the age-related assessment and treatment modifications that result. (pp 1285–1299)
6. Explain the GEMS diamond and its role in the assessment and care of the geriatric patient. (pp 1297–1298)
7. Explain special considerations when performing the patient assessment process on a geriatric patient with a medical condition. (pp 1298–1299)
8. Define polypharmacy and the toxicity issues that can result. (pp 1299–1300)
9. Discuss the effect of aging on psychiatric emergencies. (pp 1301–1305)
10. Explain special considerations when performing the patient assessment process on a geriatric patient with a traumatic injury. (p 1306)
11. Discuss the effects of aging on environmental emergencies. (pp 1306–1310)
12. Explain special considerations when responding to calls to nursing and skilled care facilities. (pp 1310–1311)
13. Define an advance directive and explain its use with older patients. (pp 1311–1312)
14. Describe the prevalence of elder abuse and neglect; include why the extent of elder abuse is not well known. (pp 1312–1313)
15. Explain the assessment and care of a geriatric patient who has potentially been abused or neglected. (p 1312)
16. Recognize acts of commission or omission by a caregiver that result in harm, potential harm, or threat of harm to a geriatric patient. (pp 1313–1314)

Chapter 36: Emergencies for Patient's with Special Challenges

1. Give examples of patients with special challenges EMTs may encounter during a medical emergency. (p 1323)
2. Explain the special patient care considerations required when providing emergency medical care to patients with intellectual disabilities, including patients with autism spectrum disorder (ASD), Down syndrome, or prior brain injuries. (pp 1324–1326)
3. Describe the different types of visual impairments and the special patient care considerations required when providing emergency medical care for visually impaired patients, depending on the level of their disability. (pp 1326–1327)
4. Describe the various types of hearing impairments and the special patient care considerations required when providing emergency medical care for hard-of-hearing patients, including tips on effective communication. (pp 1327–1329)
5. Describe the various types of hearing aids worn by patients; include strategies to troubleshoot a hearing aid that is not working. (pp 1328–1329)
6. Explain the special patient care considerations required when providing emergency medical care to patients who have cerebral palsy, spina bifida, or paralysis. (pp 1330–1333)
7. Define obesity. (p 1331)
8. Explain the special patient care considerations required when providing emergency medical care to bariatric patients; include the best way to move bariatric patients. (p 1332)
9. Explain the special patient care considerations required when providing emergency medical care to patients who rely on a form of medical technological assistance, including the following: (pp 1333–1337)
 - Tracheostomy tube
 - Mechanical ventilator
 - Apnea monitor
 - Internal cardiac pacemaker
 - Left ventricular assist device (LVAD)
 - External defibrillator vest
 - Central venous catheter
 - Gastrostomy tube
 - Ventricular peritoneal shunt
 - Vagus nerve stimulator
 - Colostomy bag, ileostomy bag, or urostomy bag
10. Describe home care, the types of patients it serves, and the services it encompasses. (p 1338)
11. Contrast hospice and palliative care with curative care. (p 1338)
12. Explain the responsibilities of EMTs when responding to calls for terminally ill patients who have DNR orders. (p 1338)

13. Discuss the issues of poverty and homelessness in the United States, their negative effects on a person's health, and the role of the EMTs as patient advocates. (p 1339)

Chapter 37: Transport Operations

1. List the nine phases of an ambulance call; include examples of key tasks EMTs perform during each phase. (pp 1353–1368)
2. Name the medical equipment carried on an ambulance; include examples of supplies that are included in each main category of the ambulance equipment checklist. (pp 1354–1360)
3. Name the safety and operations equipment carried on an ambulance; include examples of how each item might be used by EMTs in an emergency. 1361
4. Discuss the importance of performing regular vehicle inspections; include the specific parts of an ambulance that should be inspected daily. (p 1361–1362)
5. List the minimum dispatch information required by EMS to respond to an emergency call. (p 1363)
6. Describe some high-risk situations and hazards during both pre-transport and transport that may affect the safety of the ambulance and its passengers. (pp 1363–1366, 1368–1376)
7. Discuss the specific considerations that are required to ensure scene safety; include personal safety, patient safety, and traffic control. (pp 1363–1366)
8. Describe the key elements that must be included in the written patient report upon patient delivery to the hospital. (pp 1366–1367)
9. Summarize the tasks EMTs must complete in the post run phase. (pp 1367–1368)
10. Define the terms cleaning, disinfection, high-level disinfection, and sterilization. (p 1367)
11. Discuss the guidelines for safely and defensively driving an ambulance. (pp 1368–1370)
12. Identify key steps EMTs should take to improve safety while en route to the scene, the hospital, and the station. (pp 1368–1376)
13. List the three factors that dictate the use of lights and siren to the scene and to the hospital; include the risk-versus-benefit analysis regarding their use. (p 1370–1371)
14. Describe the specific, limited privileges that are provided to emergency vehicle drivers by most state laws and regulations. (pp 1374–1376)
15. Explain the additional risks and special considerations posed by the use of police escorts, and the hazards and special considerations posed by crossing intersections. (pp 1375–1376)
16. Describe the capabilities, protocols, and methods for accessing air ambulances. (pp 1376–1380)
17. Describe key scene safety considerations when preparing for a helicopter medivac, including establishing a landing zone, securing loose objects, mitigating onsite hazards, and approaching the aircraft. (pp 1378–1381)

Module #5 – Chapters 38 - 41

Material Covered:

Chapter 38: Incident Management

Chapter 39: Emergencies for Patients with Special Challenges

Chapter 40: EMS Operations

Chapter 41: A Team Approach to Healthcare

Assessments:

Chapter quizzes located in Desire2Learn / EMS Testing

Module #5 Test

Learning Outcomes:

Chapter 38: Incident Management

1. Explain the responsibilities of an EMT in patient rescue and vehicle extrication. (p 1389)
2. 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. (pp 1389, 1391–1395)
3. Describe examples of vehicle safety components that may be hazardous to both EMTs and patients following a collision and how to mitigate their dangers. (pp 1389–1390)
4. Define the terms extrication and entrapment. (p 1390)
5. Describe the ten phases of vehicle extrication and the role of the EMT during each one. (pp 1391–1398)
6. Discuss the various factors related to ensuring situational safety at the site of a vehicle extrication, including controlling traffic flow, performing a 360-degree assessment, stabilizing the vehicle, dealing with unique hazards, and evaluating the need for additional resources. (pp 1391–1395)
7. Describe the special precautions the EMT should follow to protect the patient during a vehicle extrication. (pp 1395–1396)
8. Explain the different factors that must be considered before attempting to gain access to the patient during an incident that requires extrication. (pp 1391–1395)
9. Discuss patient care considerations related to assisting with rapid extrication, providing emergency care to a trapped patient, and removing and transferring a patient. (pp 1396–1397)
10. Explain the difference between simple access and complex access in vehicle extrication. (pp 1397–1398)
11. Describe examples of situations that would require special technical rescue teams and the EMT's role in these situations. (pp 1399–1403)

Chapter 39: Emergencies for Patients with Special Challenges

1. Describe the purpose of the National Incident Management System (NIMS) and its major components. (pp 1411–1412)
2. Describe the purpose of the incident command system (ICS) and its organizational structure. (pp 1412–1415)
3. Explain the role of EMS response within the ICS (pp 1415–1417)
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. (pp 1416–1417)
5. Describe the role of the EMT in establishing command under the ICS. (p 1416)

6. Describe the purpose of the medical branch of the ICS and its organizational structure. (pp 1417–1419)
7. Describe the specific conditions that would define a situation as a mass-casualty incident (MCI); include examples. (pp 1419–1420)
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. (pp 1420–1422)
9. Explain how to perform the START and JumpSTART triage methods. (pp 1422–1424)
10. Contrast a disaster with a mass-casualty incident. (p 1425)
11. Describe the role of EMTs during a disaster operation. (p 1425)
12. Recognize the entry-level training or experience requirements identified by the HAZWOPER regulation for EMTs to respond to a HazMat incident. (p 1426)
13. Define hazardous material; include the classification system used by the NFPA. (pp 1426, 1439)
14. Discuss the specific reference materials that EMTs use to recognize a HazMat incident. (pp 1432–1436)
15. Explain the role of EMTs during a HazMat incident both before and after the HazMat team arrives; include the precautions required to ensure the safety of civilians and responders. (pp 1437–1439)
16. Describe how the three control zones are established at a HazMat incident and discuss the characteristics of each zone, and the responders who work within each one. (pp 1437–1439)
17. Describe the four levels of personal protective equipment (PPE) required at a HazMat incident to protect responders from injury by or contamination from a particular substance. (pp 1439–1440)
18. 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. (pp 1440–1441)

Chapter 40: EMS Operations

1. Define international terrorism and domestic terrorism; include examples of incidents that have been caused by each one. (p 1451)
2. Name four different types of goals that commonly motivate terrorist groups to carry out terrorist attacks. (p 1452)
3. Define weapon of mass destruction (WMD) and weapon of mass casualty (WMC); include examples of weapons considered WMDs. (p 1453)
4. Explain how the Department of Homeland Security (DHS) National Terrorism Advisory System (NTAS) relates to the actions and precautions EMTs must take while performing their daily activities. (p 1454)
5. Name the key observations EMTs must make on every call to determine the potential of a terrorist attack. (p 1454)
6. Explain the critical response actions related to establishing and reassessing scene safety, personnel protection, notification procedures, and establishing command EMTs must perform at a suspected terrorist event. (pp 1454–1457)
7. Discuss the history of chemical agents, their four main classifications, routes of exposure, effects on the patient, and patient care. (pp 1457–1463)

8. List three categories of biologic agents, their routes of exposure, effects on the patient, and patient care. (pp 1463–1471)
9. Explain the role of EMS in relation to syndromic surveillance and points of distribution (PODS) during a biologic event. (pp 1470–1471)
10. Discuss the history of nuclear/radiologic devices, sources of radiologic materials and dispersal devices, medical management of patients, and protective measures EMTs must take during a nuclear/radiologic incident. (pp 1471–1473)
11. Describe the mechanisms of injury caused by incendiary and explosive devices; include the types and severity of wounds. (pp 1473–1474)

Chapter 41: A Team Approach to Healthcare

1. Define continuum of care. (p 1489)
2. List the five essential elements of a group. (p 1491)
3. Explain the advantages of a team over a group; include the advantages of regularly training and practicing together. (pp 1490–1491)
4. List the five essential elements of a team. (pp 1491–1493)
5. Explain how crew resource management (CRM) can be useful in the prehospital environment. (pp 1493–1494)
6. List the five critical elements necessary to ensure effective transfer of patient care from one provider to another. (pp 1494–1495)
7. List the five steps a receiving health care provider should perform when taking a patient care report (PCR). (p 1495)
8. Describe the four-step process of assisting with advanced life support (ALS) skills. (p 1495)
9. Discuss the importance of preoxygenation when performing endotracheal (ET) intubation. (p 1496)
10. Describe the six steps of the BE MAGIC intubation procedure. (pp 1497–1499)
11. Describe the signs that indicate a complication with an intubated patient. (p 1500)
12. Explain the importance of ensuring patient comfort during a vascular access procedure. (pp 1500, 1502)
13. Describe the steps EMTs can take to troubleshoot interpersonal conflicts. (pp 1503–1504)

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

General Education Outcomes

This course fulfills the following General Education Outcomes: Communication Skills, Critical Thinking, and Self & Professional Development. Upon completion of this course, the student will be able to:

Outcome #1 – Communication Skills

Use effective listening skills to be able to respond appropriately

Artifact: EMS 109 Skills Evaluation

Outcome #2 – Critical Thinking

Utilize inductive and /or deductive reasoning skills

Devising a reasonable plan for resolving a problem / issue

Artifact: EMS 109 Skills Evaluation

Outcome #3 – Self & Professional Development

Respond appropriately to challenging situations

Artifact: EMS 109 Skills Evaluation

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

EVALUATION*

Quizzes	15%
Tests	60%
Final Exam	25%
	100%

Students must complete a summative comprehensive FISDAP exit exam with an overall score of 73% within two attempts.

Students must successfully complete the required NREMT psychomotor skills.

GRADING SYSTEM:

100%-90%	A
80%-89%	B
70%-79%	C
60%-69%	D
59% or less	F

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

In accordance with South Carolina Department of Health and Environmental Control – Division of EMS a student may miss 10% of the total classroom hours for any reason. Under *extenuating circumstances*, the program coordinator MAY allow the student to miss **up to a total** of 20% of the total classroom hours. The student is responsible for documenting in writing, to the program coordinator's satisfaction, the *extenuating circumstances*. The program coordinator is under NO obligation to accept the student's documentation or extend the student the additional 10% in allotted absences. The student should also understand that arriving to class late or leaving class early counts towards the allotted hours of time missed. Once the student exceeds the hours of absences, the student will be terminated from the course and will not be eligible to attempt the National Registry examination. Students withdrawn from a course due to excessive absences will receive a grade of Withdraw ("W") up to the 2/3 point of the semester. Thereafter, a Withdraw ("W") or Withdrew Failing ("WF") will be assigned dependent upon his/her academic status at the time of last date attended.

Attendance records begin on the first day of class for both new and returning students, regardless when he/she registers during the five-day registration and add/drop period at the beginning of each term.

Students are responsible for all course work and class assignments; therefore, they are expected to regularly and promptly attend each meeting of classes for which they are enrolled. Students should limit absences to those that are unavoidable and, with the professor's consent, should make up all work missed. Unannounced quizzes will *not* be made up and late homework will *not* be accepted. Two consecutive absences will result in a student/advisor conference.

Tardiness should be avoided. Three tardies will count as one absence.

Lab Attendance Requirements

The lab class times are included in the attendance policy in the same manner as your regular lecture classes. The attendance of your lab class will be combined with the lecture section for the 10% of allowed total absences. Students may not miss more than 4.5 total lab hours for the entire semester. Those 4.5 hours count toward the cumulative total of 13.5 hours allowed to be missed.

For this course, the total number of hours you may miss (10%) is 13.5 hours. This can be 13.5 hours of lecture, or 9 hours of lecture and 4.5 hours of lab (1 ½ lab sessions).

Part V: Student Resources



The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

- 1. Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
- 2. On-line student success and academic support resources.**

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455 or go to the [Online Resource Center](#) to access on-demand resources any time.

TECH Central – Student Information Center



TECH Central provides quality enrollment and collegiate guidance for students, faculty, and staff. Services include phone, walk-in, and online technical support for technology training and troubleshooting. Additionally, we offer support in Office 365, Outlook E-mail setup, and ID cards.

Phone: 843-349-5340

Email: techcentral@hgtc.edu

Text: 843-357-8552

TECH Talk (Live Chat): Located on the "Home" tab in WaveNet.

Website: www.hgtc.edu/techcentral

Locations:

Conway Building 1100, Room 132D

Grand Strand Building 200, Room 136

Disability Services

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Beth Havens, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

Statement of Equal Opportunity/Non-Discrimination Statement

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

Inquiries regarding the non-discrimination policies: Students and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice

President for Student Affairs, Dr. Melissa Batten, VP Student Affairs, Title IX Coordinator, Building 1100, Room 107A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, Melissa.Batten@hgtc.edu. Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources, Jacquelyne Snyder, VP Human Resources, Section 504, Title II, and Title IX Coordinator, Building 200, Room 212A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, Jacquelyne.Snyder@hgtc.edu.

Title IX Requirements

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

Inquiries regarding the non-discrimination policies:	
Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.	Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.
Dr. Melissa Batten, VP Student Affairs <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu	Jacquelyne Snyder, VP Human Resources <i>Section 504, Title II, and Title IX Coordinator</i> Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 Jacquelyne.Snyder@hgtc.edu