

Course Code: EMS 116

Course Title: Advanced EMT I

Department: Allied Health

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 51.0904

Repeatability: 0

Credit Hours

Catalog Notation: 4-5-5

Credit Hour Distribution:

Lecture: 4

Lab: 2

Clinical: 3

Total: 5

General Course Information

Catalog Description

First course in the AEMT certificate. Topics include EMS operations, medical terminology, anatomy and physiology, pathophysiology, pharmacology, medication administration, IV/IO access, and medical emergencies related to all major body systems.

General Course Objectives

The Advanced Emergency Medical Technician's scope of practice includes basic and limited advanced skills focused on the acute management and transportation of critical and emergent patients. This may occur at an emergency scene until transportation resources arrive, from an emergency scene to a health care facility, between health care facilities, or in other health care settings.

Minimum Placement Levels

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

Prerequisites

Approval of program director or department chair

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, 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
EMS Systems	1. Define emergency medical services (EMS). 2. Discuss the four levels of EMS training and licensure. 3. Describe licensure criteria for advanced emergency medical technicians (AEMTs). 4. Describe how the Americans with Disabilities Act (ADA) applies to employment as an AEMT. 5. Discuss the history of the development of the EMS system. 6. Describe the levels of EMS training in terms of skill sets needed for each of the following: emergency medical responder (EMR), emergency medical technician, AEMT, and paramedic. 7. Discuss the possible presence of other responders at a scene with EMR training, some knowledge of first aid, or merely good intentions, and their need for direction. 8. Describe the components of the EMS system. 9. Describe how medical direction of an EMS system works and the AEMT's role in the process. 10. Describe the goals of Mobile Integrated Healthcare (MIH) and community paramedicine. 11. Discuss the purpose of the EMS continuous quality improvement (CQI) process. 12. Characterize the EMS system's role in prevention and public education in the community. 13. Describe situations in which transport to a specialty system is warranted. 14. Describe roles and responsibilities as an AEMT. 15. Describe the attributes AEMTs are expected to possess. 16. Discuss the impact of the Health Insurance Portability and Accountability Act (HIPAA) on patient privacy.	2	0	0
Workforce Safety and Wellness	1. Define infectious disease and communicable disease. 2. Describe the routes of disease transmission. 3. Explain the mode of transmission and the steps to prevent and/or deal with an exposure to hepatitis, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). 4. Describe the standard precautions that are used in treating patients to prevent infection. 5. Describe the steps to take for personal protection from airborne and bloodborne pathogens. 6. Explain proper handwashing techniques. 7. Explain proper glove removal techniques. 8. Describe components of an infection control plan. 9. Describe the steps to prevent a potential exposure. 10. List the ways immunity to infectious diseases is acquired. 11. Explain post-exposure management of exposure to patient blood or body fluids, including completing a post-exposure report. 12. Describe the steps necessary to determine scene safety and to prevent work-related injuries at the scene. 13. Describe the various hazards that may be encountered and how to prepare for them. 14. Explain how to recognize possibly violent situations and which steps to take to deal with them. 15. Describe how to handle behavioral emergencies. 16. Describe the protective clothing and gear that is available to protect the AEMT. 17. Explain the physiologic, physical, and psychological responses to stress. 18. Describe post-traumatic stress disorder (PTSD) and steps that can be taken to decrease the likelihood that PTSD will develop, including critical incident stress management. 19. Describe components that can contribute to stress, such as burnout. 20. Identify the steps that contribute to wellness and their importance in managing stress. 21. Discuss workplace issues such as diversity, sexual harassment, and substance abuse. 22. Describe issues concerning care of the dying patient, death, and the grieving process of family members. 23. Describe reactions to expect from critically ill and injured patients and how the AEMT can effectively work with patients exhibiting a range of behaviors.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Medical, Legal, and Ethical Issues	1. Discuss the scope of practice and standards of care that are imposed on the advanced emergency medical technician (AEMT). 2. Distinguish between licensure and certification as they apply to practice as an AEMT. 3. Discuss the four factors that determine negligence. 4. Describe the legal duty to act. 5. Discuss the issues of abandonment, assault, battery, kidnapping, and false imprisonment, including the implications for the AEMT. 6. Compare defamation, slander, and libel. 7. Describe situations in which Good Samaritan laws or immunity would apply. 8. Define consent, including how it relates to decision-making capacity. 9. Compare express consent, informed consent, implied consent, and involuntary consent. 10. Discuss consent by minors for treatment or transport. 11. Describe local emergency medical services (EMS) system protocols for using forcible restraint. 12. Explain the AEMT's role and obligations if a patient refuses treatment or transport. 13. Discuss the importance of do not resuscitate orders and local protocols as they relate to the EMS environment. 14. Describe ethics and morality, including the implications for the AEMT. 15. Describe the relationship between patient communications, confidentiality, and the Health Insurance Portability and Accountability Act (HIPAA). 16. Explain the mandatory reporting requirements for special situations, including abuse or neglect, drug- or felony-related injuries, childbirth, and crime scenes. 17. Describe the presumptive and definitive signs of death. 18. Explain how to manage patients who are identified as organ donors. 19. Recognize the importance of medical identification devices in treating the patient.	2	0	0
Communications and Documentation	1. Describe factors and strategies to consider for therapeutic communication with patients. 2. Discuss the techniques of effective nonverbal communication. 3. Discuss the techniques of effective verbal communication. 4. Assess special considerations in communicating with difficult patients, older adults, children, hard-of-hearing patients, visually impaired patients, non-English-speaking patients, and special-needs patients. 5. Describe how to effectively communicate transfer of care, including delivery of the oral report upon arrival at the hospital. 6. Understand the basic principles of the various types of communications equipment used in emergency medical services (EMS). 7. Describe EMS communication procedures during the following phases of a typical call: notification or initial receipt of call, communication with dispatch en route to call, on scene, during transport, and on arrival at hospital (or point of transfer), and return to service. 8. List the proper sequence of information to communicate in radio delivery of a patient report. 9. Describe the use of radio communications, including the proper methods of initiating and terminating a radio call. 10. Describe the use of written communication and documentation. 11. Explain the legal implications of the patient care report (PCR). 12. Identify the information required in a PCR and how to report errors. 13. Articulate how to document refusal of care, including the legal implications of the patient's decision. 14. Discuss state and/or local special reporting requirements, such as for gunshot wounds, dog bites, and abuse. 15. Demonstrate the techniques of successful cross-cultural communication. 16. Demonstrate delivery of a formal oral report during transfer of care. 17. Demonstrate a simulated, concise radio transmission with dispatch. 18. Demonstrate how to provide a verbal radio report to the receiving facility. 19. Demonstrate completion of a PCR.	2	1	3

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Medical Terminology	1. Explain the purpose and the importance of being familiar with medical terminology. 2. Explain the Greek and Latin origins of medical terms. 3. Define medical eponyms, homonyms, antonyms, and synonyms; include examples for each. 4. Name the four word parts or components used to build medical terms; include examples of each. 5. Describe how compound words are created and how the plural is formed when using medical terminology; include examples of each. 6. Describe the anatomic position and why it is used. 7. List the three planes of the human body. 8. List medical terms associated with regional anatomy. 9. Explain the importance of using accurate medical terminology for direction, movement, and position in documentation and other communication. 10. Describe the topography of the abdominal region, including the four abdominal quadrants and the nine abdominal regions. 11. Identify specialized prefixes used to indicate position, direction, and location. 12. Define specific terms used to indicate the patient's position on the scene or prior to transport: prone, supine, Fowler position, and recovery (left lateral recumbent) position. 13. Interpret standardly-accepted medical abbreviations, acronyms, and symbols. 14. Identify error-prone medical abbreviations, acronyms, and symbols. 15. Know appropriate terminology related to pharmacology.	2	0	0
Lifting and Moving Patients	1. Describe the technical skills and general considerations that are required of the advanced emergency medical technician (AEMT) during patient packaging and patient handling. 2. Describe how following proper patient lifting and moving techniques helps prevent work-related injuries. 3. Describe the guidelines for properly lifting a patient and using a power grip, a draw sheet, or blanket. 4. Summarize the general considerations required to safely move patients without causing them further harm while simultaneously protecting the AEMT from injury. 5. Describe the guidelines and safety precautions AEMTs should follow when lifting and carrying a patient on a stretcher or backboard, and how to avoid common mistakes. 6. Describe specific situations in which emergency moves or urgent moves (rapid extrication) may be necessary for moving a patient; include how each move is performed. 7. Describe specific situations in which non-urgent moves may be necessary for moving a patient; include how each move is performed. 8. Discuss special considerations when moving and transporting geriatric patients and the guidelines to follow when lifting and moving geriatric patients. 9. Define the term bariatrics; include the guidelines for lifting and moving bariatric patients. 10. Name 11 patient-moving devices; include how each one is used to move a patient. 11. Explain the importance of equipment decontamination in the prevention of disease transmission. 12. Describe proper patient positioning with the following medical conditions: unresponsive patients without suspected spine injury; patients with chest pain, discomfort, or difficulty breathing; patients with suspected spine injury; pregnant patients with hypotension; patients who are nauseated or vomiting. 13. Discuss situations that may require the use of medical restraints on a patient; include the guidelines and safety considerations regarding use. 14. Demonstrate the body mechanics and principles required for safe reaching and pulling, including the safe reaching technique used for performing log rolling. 15. Demonstrate a power lift to lift a patient. 16. Demonstrate using a power grip. 17. Demonstrate the two-person body drag. 18. Demonstrate how to log roll a patient. 19. Demonstrate the diamond carry to move a patient. 20. Demonstrate the one-handed carrying technique to move a patient. 21. Demonstrate how to perform an emergency or urgent move such as a one-person technique for removing an unresponsive patient from a vehicle. 22. Demonstrate the rapid extrication technique to move a patient from a vehicle. 23. Demonstrate the direct ground lift to lift a patient. 24. Demonstrate the extremity lift to move a patient. 25. Demonstrate the direct carry to move a patient.	2	1	3

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Lifting and Moving Patients (cont'd)	26. Demonstrate how to use the draw sheet method to transfer a patient onto a stretcher. 27. Demonstrate the use of a scoop stretcher to move a patient. 28. Demonstrate how to lift a patient from the ground. 29. Demonstrate how to move a patient from a chair to a stair chair. 30. Demonstrate how to load a stretcher into an ambulance. 31. Demonstrate how to carry a patient on stairs using a stair chair. 32. Demonstrate a patient carry to move a patient up or down stairs. 33. Demonstrate the correct use of medical restraints on a patient.			
The Human Body	1. Describe the structure of a cell. 2. Describe how the structure of a cell membrane relates to movement into and out of the cell. 3. Discuss the four steps that make up the life cycle of the cell. 4. Describe the process of cellular respiration. 5. Compare aerobic to anaerobic processes. 6. Discuss cell transport mechanisms, including diffusion, osmosis, facilitated diffusion, active transport, endocytosis, and exocytosis. 7. Explain the concept of fluid balance, as well as the purpose and mechanisms for maintaining homeostasis. 8. Identify the anatomy and describe the physiology of the skeletal and musculoskeletal systems. 9. Discuss the anatomy and physiology of the respiratory system. 10. Discuss the concepts of respiration and ventilation. 11. Describe the process of gas exchange in the alveoli. 12. Explain the brainstem's role in regulating respiration. 13. Describe the concept of hypoxic drive. 14. Explain how the level of carbon dioxide in the blood and the blood's pH relate to ventilation. 15. Discuss the anatomy and physiology of the circulatory system. 16. Discuss the concepts of afterload, stroke volume, and cardiac output. 17. Discuss the Starling law of the heart. 18. Discuss the anatomy and physiology of the nervous system. 19. Describe the anatomy and physiology of the integumentary system. 20. Explain the anatomy and physiology of the digestive system. 21. Discuss the anatomy and physiology of the endocrine system. 22. Describe the anatomy and physiology of the urinary system. 23. Discuss the anatomy and physiology of the genital system.	2	0	0
Pathophysiology	1. Define pathophysiology, including its role in diagnosing and treating disease. 2. Compare atrophy, hypertrophy, hyperplasia, dysplasia, and metaplasia as means of cellular adaptation. 3. List factors that can affect or upset homeostasis. 4. Explain the causes, clinical manifestations, assessment, and management of edema. 5. Discuss types of fluid deficits and potential resulting complications. 6. Explain the physiologic consequences of electrolyte imbalances in sodium, potassium, calcium, phosphate, and magnesium. 7. Compare respiratory acidosis, respiratory alkalosis, metabolic acidosis, and metabolic alkalosis. 8. Outline how cellular injury occurs in patients with hypoxia, chemical exposures, infection (sepsis), immunologic exposures (hypersensitivity reactions), inflammatory conditions, genetic disorders, nutritional imbalances, physical damage (mechanical injury), and other harmful exposures, such as extremes of hot and cold. 9. Examine the concept of apoptosis. 10. Define perfusion, including the physiologic consequences of hypoperfusion. 11. Classify the mechanisms by which the body compensates for hypoperfusion. 12. Discuss the causes of central and peripheral shock, including cardiogenic, obstructive, hypovolemic, and distributive shock. 13. Explain how to treat a patient in shock. 14. Describe multiple organ dysfunction syndrome. 15. Examine the body's three defense mechanisms against pathogens: anatomic barriers, the immune response, and the inflammatory response. 16. Explain how plasma protein systems--the complement system, the coagulation (clotting) system, and the kinin system--modulate the inflammatory response.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Pathophysiology (cont'd)	17. Compare wound healing by primary intention with wound healing by secondary intention. 18. Outline each of the four types of hypersensitivity reactions and mechanisms for immunologic injury. 19. List several autoimmune reactions. 20. Compare inherited and acquired immunodeficiencies. 21. Differentiate the controllable and uncontrollable risk factors that intersect in order to cause disease. 22. Outline how incidence, prevalence, morbidity, and mortality data are used to analyze disease risk. 23. Explain risk factors for cancer and cardiovascular disease. 24. Describe how hematologic disorders occur. 25. Name common renal, gastrointestinal, and neuromuscular disorders. 26. List the stages of the general adaptation syndrome, and explore the relationship between stress and disease.			
Life Span Development	1. Explain the terms used to designate the following developmental stages: infants, toddlers, preschoolers, school-age children, adolescents (teenagers), early adults, middle adults, and older adults. 2. Describe the major physical and psychosocial characteristics of an infant's life. 3. Describe the major physical and psychosocial characteristics of a toddler's life. 4. Describe the major physical and psychosocial characteristics of a preschooler's life. 5. Describe the major physical and psychosocial characteristics of a school-age child's life. 6. Describe the major physical and psychosocial characteristics of an adolescent's life. 7. Describe the major physical and psychosocial characteristics of an early adult's life. 8. Describe the major physical and psychosocial characteristics of a middle adult's life. 9. Describe the major physical and psychosocial characteristics of an older adult's life.	2	0	0
Patient Assessment	1. Identify the components of the patient assessment process. 2. Explain how the different causes and presentations of emergencies will affect how to perform each step of the patient assessment process. 3. Describe the key elements of the critical thinking process and how to apply them in the field. 4. Discuss some of the possible environmental, chemical, and biologic hazards that may be present at an emergency scene, ways to recognize them, and precautions to protect personal safety. 5. Discuss how to survey a scene for signs of violence and protect self and bystanders from real or potential danger. 6. Describe how to determine the mechanism of injury or nature of the illness at an emergency and the importance of differentiating trauma patients from medical patients. 7. List the minimum standard precautions that should be followed and personal protective equipment that should be worn at an emergency scene, including examples of when additional precautions would be appropriate. 8. Explain why it is important to identify the total number of patients at an emergency scene and how this evaluation relates to determining the need for additional or specialized resources, implementation of the incident command system, and triage. 9. Describe the principal goals of the primary survey process. 10. Explain the process of forming a general impression of a patient as part of the primary survey and the reasons why this step is critical to patient management. 11. Describe the assessment of airway status in patients who are responsive and unresponsive. 12. Describe possible signs and causes of airway obstruction in patients who are responsive and unresponsive, as well as the appropriate response. 13. Describe the assessment of a patient's breathing status, including the key information the AEMT must obtain during this process and the emergency medical care required for patients who have both adequate and inadequate breathing. 14. List the signs of respiratory distress and respiratory failure. 15. Describe the assessment of a patient's circulatory status, including the different methods for obtaining a pulse and appropriate management depending on the patient's status. 16. Explain the variations required to obtain a pulse in infant and child patients compared with adult patients.	2	4	6

Patient
Assessment
(cont'd)

17. Describe the assessment of a patient's skin color, temperature, and condition, including examples of both normal and abnormal findings and the information this provides related to the patient's status.
18. Discuss the process of assessing for and methods for controlling external bleeding.
19. Explain the importance of assessing a patient's level of consciousness to determine altered mental status.
20. Give examples of different methods used to assess alertness, responsiveness, and orientation.
21. List the steps to follow during the primary survey of a trauma patient, including examples of abnormal signs and appropriate related actions.
22. Discuss the steps used to identify and subsequently treat life-threatening conditions that endanger a patient during an emergency.
23. Explain the process for determining the priority of patient care and transport at an emergency scene, including examples of conditions that necessitate rapid transport.
24. Discuss the importance of protecting a trauma patient's spine and identifying fractured extremities during patient packaging for transport.
25. Discuss the process of taking a patient history, its key components, and its relationship to the primary survey process.
26. Describe examples of different techniques used to obtain information from patients during the history-taking process.
27. Discuss different challenges faced when taking a patient history on sensitive topics and strategies that can be used to facilitate each situation.
28. Describe the purpose of performing a physical exam during secondary assessment, its components, special patient considerations, and methods for determining which aspects of the physical exam will be used.
29. Name the devices used to monitor a patient's medical condition during the secondary assessment and reassessment.
30. Describe the purpose of a full-body exam, and list the steps used during this process.
31. Explain situations in which patients may receive a focused assessment, including examples by body system of what each focused assessment should include based on a patient's chief complaint.
32. List normal respiratory rate, pulse rate, and blood pressure ranges for adults, children, and infants.
33. Explain the importance of performing a reassessment of the patient and the steps in this process.
34. Demonstrate the techniques for assessing a patient's airway, and correctly obtain information related to respiratory rate, rhythm, quality/character of breathing, and depth of breathing.
35. Demonstrate how to obtain a pulse rate in a patient.
36. Demonstrate how to assess a radial pulse in a responsive patient and an unresponsive patient.
37. Demonstrate how to assess a carotid pulse in an unresponsive patient.
38. Demonstrate how to palpate a brachial pulse in a child who is younger than 1 year (or a manikin).
39. Demonstrate how to assess capillary refill in an adult or child older than 6 years.
40. Demonstrate how to assess capillary refill in an infant or child younger than 6 years.
41. Demonstrate how to use the AVPU scale to test for patient responsiveness.
42. Demonstrate how to evaluate a patient's orientation and document his or her status correctly.
43. Demonstrate how to perform a rapid full-body scan during the primary survey of a patient.
44. Demonstrate the use of a pulse oximetry device to evaluate the effectiveness of oxygenation in the patient.
45. Demonstrate the use of electronic and manual devices to assist in determining the patient's blood pressure in the field.
46. Demonstrate the use of an end-tidal carbon dioxide monitoring device to assist in determining the patient's concentration of expired carbon dioxide in the field.
47. Demonstrate how to assess a patient's blood glucose level.
48. Demonstrate how to perform a full-body exam.
49. Demonstrate how to perform a focused assessment.
50. Demonstrate how to measure blood pressure by auscultation.
51. Demonstrate how to measure blood pressure by palpation.
52. Demonstrate how to test pupil reaction in response to light in a patient and document their status correctly.

Airway Management	1. List the major structures of the respiratory system. 2. Discuss the physiology of breathing. 3. Describe factors related to ventilation, including partial pressure and volumes. 4. Describe factors related to the pathophysiology of respiration, including ventilation-perfusion ratio mismatch, hypoventilation, hyperventilation, and circulatory compromise. 5. Explain the concept of acid-base imbalance. 6. Explain how to assess for adequate and inadequate respiration, including the use of pulse oximetry. 7. List the signs of adequate breathing. 8. List the signs of inadequate breathing. 9. Explain how to assess for a patent airway. 10. Describe abnormal breathing patterns to recognize when assessing a patient's breathing. 11. Discuss the methods for end-tidal carbon dioxide assessment, including its importance. 12. Describe the assessment and care of a patient with apnea. 13. Describe how to perform the head tilt-chin lift maneuver. 14. Describe how to perform the jaw-thrust maneuver. 15. Explain the use of the recovery position to maintain a clear airway. 16. Discuss the importance and techniques of suctioning. 17. Explain the AEMT's role in performing tracheobronchial suctioning. 18. Explain how to measure and insert an oropharyngeal (oral) airway. 19. Demonstrate the use of an MTV device to assist in delivering artificial ventilation to the patient. 20. Describe the importance of giving supplemental oxygen to patients who are hypoxic. 21. Describe the basics of how oxygen is stored and the various hazards associated with its use. 22. Explain how to use a non-rebreathing mask, and state the oxygen flow requirements for its use. 23. Describe the indications for using a nasal cannula rather than a non-rebreathing face mask. 24. Describe the indications for use of a humidifier during supplemental oxygen therapy. 25. Describe the use of a one-, two-, or three-person bag-mask device and a manually triggered ventilation (MTV) device. 26. Explain how to perform mouth-to-mouth or mouth-to-mask ventilation. 27. Describe the signs associated with adequate and inadequate artificial ventilation. 28. Describe the indications, contraindications, and complications of use of continuous positive airway pressure (CPAP). 29. Explain the considerations surrounding gastric distention. 30. Discuss airway management considerations for patients with a laryngectomy, tracheostomy, or stoma. 31. Discuss supraglottic and multilumen airway devices, including how they work, their indications, contraindications, and complications, and the procedure for inserting them. 32. Describe how to recognize and care for a foreign body airway obstruction. 33. Demonstrate use of pulse oximetry. 34. Demonstrate how to position the unresponsive patient. 35. Demonstrate the steps in performing the head tilt-chin lift maneuver. 36. Demonstrate the steps in performing the jaw-thrust maneuver. 37. Demonstrate the steps in performing the tongue-jaw lift maneuver. 38. Demonstrate how to place a patient in the recovery position. 39. Demonstrate how to operate a suction unit. 40. Demonstrate how to suction a patient's airway. 41. Demonstrate how to perform tracheobronchial suctioning. 42. Demonstrate the insertion of an oral airway. 43. Demonstrate the insertion of an oral airway with a 90° rotation. 44. Demonstrate the insertion of a nasal airway. 45. Demonstrate how to place an oxygen cylinder into service. 46. Demonstrate the use of a partial rebreathing mask in providing supplemental oxygen therapy to patients. 47. Demonstrate the use of a Venturi mask in providing supplemental oxygen therapy to patients. 48. Demonstrate the use of a humidifier in providing supplemental oxygen therapy to patients. 49. Demonstrate how to assist a patient with ventilations using the bag-mask device for one and two rescuers. 50. Demonstrate mouth-to-mask ventilation.	4	4	4
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Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Airway Management (cont'd)	51. Demonstrate the use of an MTV device to assist in delivering artificial ventilation to the patient. 52. Demonstrate the use of an automatic transport ventilator to assist in delivering artificial ventilation to the patient. 53. Demonstrate the use of CPAP. 54. Demonstrate how to suction a stoma. 55. Demonstrate mouth-to-stoma ventilation with a resuscitation mask. 56. Demonstrate bag-mask device-to-stoma ventilation. 57. Demonstrate insertion of the King LT airway. 58. Demonstrate insertion of the laryngeal mask airway. 59. Demonstrate insertion of an i-gel supraglottic airway. 60. Demonstrate insertion of the Cobra perilaryngeal airway. 61. Demonstrate insertion of the Combitube.			
Principles of Pharmacology	1. Discuss important drug terminology, including intended effects, unintended effects, untoward effects, indications, and contraindications. 2. Discuss the differences between generic, trade, chemical, and official medication names, and provide an example of each. 3. Discuss the US laws and regulations that relate to medication manufacturing and distribution. 4. List the five schedules of drugs with the highest abuse potential per the Controlled Substances Act. 5. Discuss the US Food and Drug Administration (FDA) approval process. 6. Describe the proper storage for drugs and security concerns. 7. Describe the medication administration considerations that must be applied to special populations, including pediatric, geriatric, and pregnant patients. 8. Discuss legal, moral, and ethical considerations related to drug administration. 9. Explain the term mechanism of action. 10. Describe the roles and functions of the sympathetic and parasympathetic nervous systems. 11. Discuss the concept of receptor sites, including adrenergic receptors, and how medications may take advantage of these. 12. Discuss the concepts of agonists and antagonists as they relate to medications. 13. List the types of drugs that affect the sympathetic nervous system, including sympathomimetics and sympatholytics, and describe how they create their effects. 14. List the types of drugs that affect the parasympathetic nervous system, including parasympathomimetics and parasympatholytics, and describe how they create their effects. 15. Discuss the effects of opioid agonists, opioid antagonists, and opioid agonist-antagonists. 16. Discuss types of sedative-hypnotics, including benzodiazepines, barbiturates, and nonbarbiturate hypnotics. 17. Discuss central nervous system stimulants and depressants. 18. Determine which drugs will affect the cardiac system, including cardiac glycosides, antidysrhythmics, and antihypertensive medications, and describe how they exert their effects. 19. Determine drugs that affect the respiratory system, including oxygen, over-the-counter medications, bronchodilators, and xanthines. 20. Explain the solid, liquid, and gas forms of medication, provide examples of each, and discuss how the form of a medication dictates its route of administration. 21. Describe the enteral and parenteral routes of medication administration and explain how they differ. 22. Describe the following routes of medication administration and discuss their individual rates of absorption: oral, intravenous, intraosseous, subcutaneous, intramuscular, sublingual, intranasal, and inhalation. 23. Define the term pharmacokinetics and describe the stages a medication goes through while being processed in the body. 24. Define the term pharmacodynamics, and describe the types of predictable and unpredictable responses a drug may create. 25. Discuss the concepts of serum sickness, idiosyncratic reaction, cumulative effect, summation, potentiation, drug dependence, and medication interaction.	3	1	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Vascular Access and Medication Administration	1. Describe the role of medical direction in medication administration, and explain the difference between direct orders (online) and standing orders (offline). 2. Explain the 10 rights of medication administration and describe how each one relates to emergency medical services. 3. Explain why determining a patient's prescription and over-the-counter (OTC) medications is a critical aspect of patient assessment. 4. Discuss basic cell physiology and how it relates to intravenous (IV) therapy. 5. List commonly used IV fluid compositions and types of IV solutions. 6. Discuss the techniques for performing IV therapy. 7. Discuss the factors to consider when choosing an IV solution. 8. Discuss the factors to consider when choosing an administration set. 9. Discuss the factors to consider when choosing an IV site. 10. List types of IV catheters. 11. Discuss alternative IV sites and techniques. 12. Describe complications that can occur as a result of IV therapy. 13. Describe special considerations when performing IV therapy on a pediatric or geriatric patient. 14. Discuss the techniques for establishing an intraosseous (IO) line. 15. List the types of IO devices available. 16. Discuss the possible complications of IO infusion. 17. Discuss the systems of weights and measures used when administering medication. 18. Explain principles of drug dose calculations, including desired dose, concentration on hand, volume on hand, volume to administer, and IV drip rate. 19. Discuss the advantages, disadvantages, and techniques for administering by the following routes: oral administration, rectal administration, subcutaneous administration, intramuscular administration, sublingual administration, intranasal administration, administration by inhalation, IV administration, and IO administration. 20. Demonstrate the process an AEMT should follow when following the 10 rights of medication administration. 21. Demonstrate how to spike an IV bag. 22. Demonstrate how to obtain vascular access. 23. Demonstrate how to gain IO access. 24. Demonstrate how to administer oral medication to a patient. 25. Demonstrate how to draw medication from an ampule. 26. Demonstrate how to draw medication from a vial. 27. Demonstrate how to administer a subcutaneous medication to a patient. 28. Demonstrate how to administer an intramuscular medication to a patient. 29. Demonstrate how to administer a sublingual medication to a patient. 30. Demonstrate how to administer an intranasal medication to a patient. 31. Demonstrate how to administer a medication via inhalation to a patient. 32. Demonstrate how to assist a patient with a metered-dose inhaler (MDI). 33. Demonstrate how to assist a patient with a small-volume nebulizer. 34. Demonstrate how to administer a medication via the IV bolus route. 35. Demonstrate how to administer a medication via the IO route.	4	4	5
Shock	1. Describe the physiology of perfusion, including the role of the autonomic nervous system in controlling blood pressure. 2. Discuss cardiac output, heart rate, stroke volume, and systemic vascular resistance. 3. Discuss myocardial contractility, afterload, and preload, and how they relate to shock. 4. Discuss the pathophysiology of shock (hypoperfusion). 5. Describe how the body compensates for decreased perfusion. 6. Explain how the body progresses to multiple-organ dysfunction syndrome (MODS). 7. Recognize the causes of shock. 8. Describe the various types of shock, including hypovolemic shock, cardiogenic shock, obstructive shock, and distributive shock. 9. Describe the signs and symptoms of shock. 10. Describe the three stages of shock. 11. Explain the progression of shock, including the three distinct phases.	3	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Shock (cont'd)	12. Discuss the assessment of a patient who could be in shock. 13. Describe the steps to follow in the emergency care of the patient with signs and symptoms of shock. 14. Discuss the role of fluid administration in treating a patient in potential shock. 15. Discuss special considerations in fluid resuscitation. 16. Demonstrate how to complete an emergency medical services patient care report for a patient with bleeding and/or shock. 17. Demonstrate how to treat a patient in potential shock.			
BLS Resuscitation	1. Explain the elements of basic life support (BLS), how it differs from advanced life support (ALS), and why BLS must be applied rapidly. 2. Explain the goals of cardiopulmonary resuscitation (CPR) and when it should be performed on a patient. 3. Explain the components of CPR, the five links in the American Heart Association (AHA) chain of survival, and how each one relates to maximizing patient survival. 4. Discuss guidelines for circumstances that require the use of an automated external defibrillator (AED) on both adult and pediatric patients experiencing cardiac arrest. 5. Explain four special situations related to the use of an AED. 6. Describe the proper way to position an adult patient to receive BLS care. 7. Describe the purpose of external chest compressions. 8. Describe the two techniques advanced emergency medical technicians (AEMTs) may use to open an adult patient's airway and the circumstances that would determine when to use each technique. 9. Describe the recovery position and circumstances that would warrant its use as well as situations in which it would be contraindicated. 10. Describe the process of providing artificial ventilations to an adult patient, ways to avoid gastric distention, and modifications required for a patient with a stoma. 11. Explain the steps in providing one-rescuer adult CPR. 12. Explain the steps in providing two-rescuer adult CPR, including the method for switching positions during the process. 13. Explain crew resource management and the roles of the team member and the team leader. 14. Summarize the steps of post-cardiac arrest care. 15. Describe the different mechanical devices that are available to assist emergency medical care providers in delivering improved circulatory efforts during CPR. 16. Describe the different possible causes of cardiopulmonary arrest in children. 17. Explain pediatric BLS procedures and how they differ from BLS procedures used in an adult patient. 18. Describe the ethical issues related to patient resuscitation, including examples of when not to start CPR on a patient. 19. Explain the various factors involved in the decision to stop CPR after it has been started on a patient. 20. Explain common causes of foreign body airway obstruction in both children and adults and how to distinguish mild or partial airway obstruction from complete airway obstruction. 21. Describe the different methods for removing a foreign body airway obstruction in an infant, child, and adult, including the procedure for a patient with an obstruction who becomes unresponsive. 22. Describe special resuscitation circumstances, such as opioid overdose or cardiac arrest in pregnancy. 23. Discuss how to provide grief support for a patient's family members and loved ones after resuscitation has ended. 24. Discuss the importance of frequent CPR training for AEMTs, as well as public education programs that teach compression-only CPR. 25. Demonstrate how to position an unresponsive adult for CPR. 26. Demonstrate how to check for a pulse at the carotid artery in an unresponsive child or adult. 27. Demonstrate how to perform external chest compressions on an adult. 28. Demonstrate how to perform a head tilt-chin lift maneuver on an adult. 29. Demonstrate how to perform a jaw-thrust maneuver on an adult. 30. Demonstrate how to place a patient in the recovery position. 31. Demonstrate how to perform artificial ventilations in an adult.	2	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
BLS Resuscitation (cont'd)	32. Demonstrate how to perform one-rescuer adult CPR. 33. Demonstrate how to perform two-rescuer adult CPR. 34. Demonstrate the use of mechanical devices that assist emergency responders in delivering improved circulatory efforts during CPR. 35. Demonstrate how to check for a pulse at the brachial artery in an unresponsive infant. 36. Demonstrate how to perform external chest compressions on an infant. 37. Demonstrate how to perform CPR on a child who is between 1 year of age and the onset of puberty. 38. Demonstrate how to perform a head tilt-chin lift maneuver on a pediatric patient. 39. Demonstrate how to perform a jaw-thrust maneuver on a pediatric patient. 40. Demonstrate how to perform rescue breathing on a child. 41. Demonstrate how to perform rescue breathing on an infant. 42. Demonstrate how to remove a foreign body airway obstruction in a responsive adult patient using abdominal thrusts (Heimlich maneuver). 43. Demonstrate how to remove a foreign body airway obstruction in a responsive pregnant patient or patient with obesity using chest thrusts. 44. Demonstrate how to remove a foreign body airway obstruction in a responsive child older than 1 year using abdominal thrusts (Heimlich maneuver). 45. Demonstrate how to remove a foreign body airway obstruction in an unresponsive child. 46. Demonstrate how to remove a foreign body airway obstruction in an infant.			
Medical Overview	1. Differentiate between medical emergencies and trauma emergencies, remembering that some patients may have both. 2. Name the various categories of common medical emergencies and give examples. 3. Describe the evaluation of the nature of illness. 4. Identify elements and steps in the assessment of a patient with a medical emergency. 5. Explain the importance of transport time and destination selection for a medical patient. 6. Describe the general assessment and management principles when working with a patient who may have an infectious or communicable disease. 7. Define epidemic and pandemic. 8. Discuss the pathophysiology, signs and symptoms, and management of a patient with HIV or acquired immunodeficiency syndrome. 9. Discuss precautions to protect against exposure to HIV. 10. Discuss the pathophysiology, signs and symptoms, and management of a patient with influenza, and describe ways to protect against its transmission. 11. Discuss the pathophysiology, signs and symptoms, and management of a patient with hepatitis. 12. Discuss precautions to protect oneself against exposure to hepatitis. 13. Discuss other infectious diseases of special concern and their routes of transmission, including herpes simplex, syphilis, meningitis, tuberculosis, pertussis, and methicillin-resistant Staphylococcus aureus. 14. Identify other new and emerging diseases, including West Nile virus, severe acute respiratory syndrome, and avian flu. 15. Discuss infections that are global health issues, including Middle East respiratory syndrome coronavirus and Ebola. 16. Describe the procedure for taking a travel history, and apply its findings to the patient's present condition.	2	0	0
Respiratory Emergencies	1. Review the structures and functions of the upper and lower airways, lungs, and accessory structures of the respiratory system. 2. Explain the physiology of respiration and list the signs of normal breathing. 3. Explain the special patient assessment and care considerations that are required for pediatric patients who are experiencing respiratory distress. 4. Discuss the pathophysiology of respiration and provide examples of the common signs and symptoms a patient with inadequate breathing may present with in an emergency situation. 5. Explain the concept of hypoxic drive. 6. Describe the various respiratory conditions that cause dyspnea, including their causes, assessment findings and symptoms, complications, and specific prehospital management and transport decisions. 7. List and review the characteristics of infectious diseases that are frequently associated with dyspnea.	4	2	4

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Respiratory Emergencies (cont'd)	8. Explain the special patient assessment and care considerations that are required for geriatric patients who are experiencing respiratory distress. 9. Describe the assessment of a patient who is in respiratory distress and the relationship of the assessment findings to patient management and transport decisions. 10. Describe the primary emergency medical care of a person who is in respiratory distress. 11. List and define five different types of adventitious breath sounds, their signs and symptoms, and the disease process associated with each one. 12. Summarize the steps in emergency medical care of a patient with dyspnea. 13. State the generic name, medication forms, dose, administration, indications, actions, and contraindications for medications that are administered via metered-dose inhalers and small-volume nebulizers. 14. Discuss the application of a continuous positive airway pressure/bilevel positive airway pressure unit. 15. Discuss some epidemic and pandemic considerations related to the spread of influenza type A and strategies advanced emergency medical technicians should use to protect themselves from infection during a possible crisis situation. 16. Demonstrate the process of history-taking to obtain more information related to a patient's chief complaint based on a case scenario. 17. Demonstrate how to use the OPQRST assessment to obtain more specific information about a patient's breathing problem. 18. Demonstrate how to assist a patient with the administration of a small-volume nebulizer. 19. Demonstrate how to assist a patient with the administration of a metered-dose inhaler.			
Cardiovascular Emergencies	1. Review the basic anatomy and physiology of the cardiovascular system. 2. Discuss the regulation of heart function. 3. Describe the cardiac cycle, including the concepts of afterload, stroke volume, and cardiac output. 4. Describe the pathophysiology of angina pectoris, thromboembolism, and myocardial infarction. 5. List the dangerous dysrhythmias that may follow a myocardial infarction. 6. Discuss the pathophysiology of cardiogenic shock and its signs, symptoms, and treatment. 7. Discuss the pathophysiology of heart failure and its signs, symptoms, and treatment. 8. Discuss the pathophysiology of pulmonary edema. 9. Describe the pathophysiology, signs and symptoms, and management of hypertensive emergencies. 10. Describe the pathophysiology, assessment, and management of aortic aneurysm/dissection. 11. Explain patient assessment procedures for cardiovascular problems. 12. Explain the relationship between airway management and the patient with cardiac compromise. 13. Discuss emergency medical care for cardiovascular emergencies, including angina pectoris, thromboembolism, and myocardial infarction. 14. List the indications and contraindications for the use of nitroglycerin. 15. Explain that many patients will have had cardiac surgery and may have implanted pacemakers. 16. Define cardiac arrest. 17. Discuss the different types of AEDs. 18. Describe the difference between the fully automated and the semiautomated defibrillator. 19. List the advantages of using AEDs. 20. List the indications and contraindications for use of an automated external defibrillator (AED). 21. Explain the use of remote, adhesive defibrillator pads. 22. Explain why not all patients in cardiac arrest need to be attached to an AED. 23. List the reasons for early defibrillation. 24. Describe AED maintenance procedures. 25. Explain the circumstances that may result in inappropriate shocks from an AED. 26. Explain the role played by medical direction in the use of AEDs. 27. Explain the need for a case review of each incident in which an AED is used. 28. Discuss the importance of practice and continuing education with the AED. 29. Explain the reason not to touch the patient, such as by delivering cardiopulmonary resuscitation, while the AED is analyzing the heart rhythm and delivering shocks.	4	2	4

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Cardiovascular Emergencies (cont'd)	30. Describe the emergency medical care for the patient with cardiac arrest. 31. Explain the relationship of age to defibrillation. 32. Discuss the procedures to follow for standard operation of the various types of AEDs. 33. Describe the components of care following AED shocks. 34. Explain criteria for transport of the patient following CPR and defibrillation. 35. Discuss the role of cardiac monitoring. 36. Demonstrate how to assess and provide emergency medical care for a patient with chest pain or discomfort. 37. Demonstrate the administration of aspirin to a patient with chest pain. 38. Demonstrate the administration of nitroglycerin. 39. Demonstrate how to perform maintenance of an AED. 40. Demonstrate how to use an AED and perform CPR. 41. Demonstrate how to place electrodes for cardiac monitoring.			
Neurologic Emergencies	1. Review the anatomy and physiology of the brain and spinal cord. 2. List the various ways blood flow to the brain may be interrupted and cause a stroke. 3. Discuss the causes of ischemic strokes, hemorrhagic strokes, and transient ischemic attacks (TIAs) and their similarities and differences. 4. Discuss the different types of headaches, the possible causes of each, and how to distinguish a harmless headache from a potentially life-threatening condition. 5. Describe the dangers associated with increased intracranial pressure (ICP) and the processes that occur in the brain with increased ICP. 6. List the general signs and symptoms of stroke, and identify those symptoms that manifest if the left hemisphere of the brain is affected, if the right hemisphere of the brain is affected, and if there is bleeding in the brain. 7. Discuss three conditions with symptoms that mimic stroke and the assessment techniques the advanced emergency medical technician (AEMT) may use to identify them. 8. Define a generalized seizure, partial seizure, and status epilepticus, including their effects on a patient and how they differ from each other. 9. Describe the different phases of a seizure. 10. List the different types of seizures and their possible causes. 11. Explain why it is important for the AEMT to recognize when a seizure is occurring or whether one has already occurred in a patient and to identify other problems that may be associated with the seizure. 12. Describe the postictal state and the specific patient care interventions that may be necessary to assist the patient. 13. Define altered mental status, its various possible causes, and the patient assessment considerations that apply to each. 14. Discuss scene safety considerations when responding to a patient with a neurologic emergency. 15. Describe the steps involved in performing a primary survey of a patient who is experiencing a neurologic emergency and the necessary interventions that may be required to address all life threats. 16. Discuss the special considerations required for pediatric patients who exhibit altered mental status. 17. Discuss special considerations for geriatric patients who are experiencing a neurologic emergency. 18. Describe the process of history-taking for a patient who is experiencing a neurologic emergency, and explain how this process varies depending on the nature of the patient's illness. 19. Discuss how to use a stroke assessment tool to identify a stroke patient rapidly, giving examples of two commonly used tools. 20. List the key information an AEMT must obtain and document for a stroke patient during assessment and reassessment. 21. Explain why a patient who is suspected of experiencing a stroke is placed on stroke alert and requires treatment within the first 3 to 6 hours after the stroke begins. 22. Describe the patient management, treatment, and transport of patients who are experiencing headaches, stroke, seizure, or altered mental status. 23. Demonstrate how to use a stroke assessment tool such as the Cincinnati Prehospital Stroke Scale to test a patient for aphasia, facial weakness, and motor weakness.	2	1	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Gastrointestinal and Urologic Emergencies	1. Review the anatomy and physiology of the gastrointestinal and renal systems. 2. Define the term acute abdomen. 3. Define peritonitis and list its potential signs and symptoms. 4. Explain the concept of referred pain. 5. Describe how abdominal pain can arise from other body systems. 6. Discuss the various potential causes of acute abdomen, including gastrointestinal hemorrhage (e.g., from esophagitis, gastroesophageal reflux disease, peptic ulcer disease, Mallory-Weiss tear, esophageal varices, or hemorrhoids) and nonhemorrhagic conditions (e.g., gallstones, pancreatitis, appendicitis, gastroenteritis, diverticulitis). 7. Discuss the pathophysiology of chronic inflammatory abdominal conditions, including ulcerative colitis, irritable bowel syndrome, and Crohn's disease. 8. Discuss the various types of urologic pathophysiology, including urinary tract infections. 9. Discuss the various types of renal pathophysiology, including kidney stones, acute kidney injury, chronic kidney disease, and end-stage renal disease. 10. Identify gynecologic conditions that can cause abdominal pain, including pelvic inflammatory disease and ectopic pregnancy. 11. Identify male genital tract conditions that can cause abdominal pain, including epididymitis, priapism, benign prostate hypertrophy, testicular masses, and testicular torsion. 12. Identify pathophysiologies of other organ systems that can lead to gastrointestinal and urologic conditions, including aneurysm and hernia. 13. Describe the assessment process for patients with an acute abdomen or urologic emergency. 14. Describe the procedures to follow in managing the patient with shock associated with abdominal emergencies. 15. Discuss general management of a patient with an acute abdomen or urologic emergency. 16. Explain the purpose of renal dialysis. 17. Describe potential complications of dialysis or a missed dialysis treatment. 18. Demonstrate the assessment of a patient's abdomen.	2	1	2
Endocrine and Hematologic Emergencies	1. Review the anatomy and physiology of the endocrine system and its main function in the body. 2. Discuss the role of glucose as a major source of energy for the body and its relationship to insulin. 3. Explain hypothyroidism with hyperthyroidism. 4. Define the term diabetes. 5. Discuss complications of diabetes. 6. Determine the differences between the two types of diabetes and how their onset patterns differ. 7. Explain some age-related considerations when managing a geriatric patient who has undiagnosed diabetes. 8. Identify risk factors associated with prediabetes, including the role of hemoglobin A1c blood tests in distinguishing prediabetes from diabetes. 9. Discuss diagnosis and management of gestational diabetes. 10. Explain some age-related considerations when managing a pediatric patient who is experiencing a hyperglycemic or hypoglycemic crisis. 11. Describe the differences and similarities between hyperglycemic and hypoglycemic diabetic emergencies, including their onset, signs and symptoms, and management considerations. 12. Discuss the steps to follow when conducting a primary survey and secondary assessment of a patient with an altered mental status who is a suspected diabetic patient. 13. Explain the process for assessing and managing the airway of a patient with an altered mental status, including ways to differentiate a hyperglycemic patient from a hypoglycemic patient. 14. Describe the interventions for providing emergency medical care during a hypoglycemic crisis to responsive and unresponsive patients who have a history of diabetes. 15. Describe the interventions for providing emergency medical care during a hyperglycemic crisis to responsive and unresponsive patients with a history of diabetes.	2	2	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Endocrine and Hematologic Emergencies (cont'd)	16. Provide the generic and trade names, form, dose, administration, indications, and contraindications for giving oral glucose to a patient with a decreased level of consciousness who has a history of diabetes. 17. Explain when it is appropriate to obtain medical direction when providing emergency medical care to a patient with diabetes. 18. Provide the generic and trade names, form, dose, administration, indications, and contraindications for administering dextrose to a patient with hypoglycemia. 19. Provide the generic and trade names, form, dose, administration, indications, and contraindications for administering glucagon to a patient with hypoglycemia. 20. Discuss the composition and functions of blood. 21. Describe the pathophysiology of sickle cell disease and the four main types of sickle cell crises. 22. Describe blood clotting disorders and the risk factors, characteristics, and management of each. 23. Describe the assessment and management of a patient with suspected sickle cell disease. 24. Demonstrate the assessment and care of a patient with hypoglycemia and a decreased level of consciousness. 25. Demonstrate how to administer glucose to a patient with an altered mental status. 26. Demonstrate how to administer dextrose to a patient with hypoglycemia. 27. Demonstrate how to administer glucagon to a patient with hypoglycemia. 28. Demonstrate the assessment and care of a patient with sickle cell crisis. 29. Demonstrate the assessment and care of a patient with a blood clotting disorder.			
Immunologic Emergencies	1. Understand and define the terms allergic reaction and anaphylaxis. 2. Describe the purpose of the immune system. 3. Discuss the process that begins when a foreign substance is detected in the body (primary response). 4. Explain the roles of basophils and mast cells in the immune response process. 5. Describe the process that occurs when the body undergoes a secondary response. 6. Explain the difference between a local response and a systemic response to allergens. 7. Explain the roles of two types of chemical mediators, histamines and leukotrienes, in the immune response process. 8. List and give examples of the signs and symptoms of an allergic reaction and those of anaphylaxis. 9. Describe the assessment process for a patient with an allergic reaction. 10. Explain the importance of managing the airway, breathing, and circulation of a patient who is having an allergic reaction. 11. Review the process for providing emergency medical care to a patient who is experiencing an allergic reaction. 12. Explain the rationale, including communication and documentation considerations, when determining whether to administer epinephrine to a patient who is having an allergic reaction. 13. List the types of insect stings that may cause an allergic reaction, and describe specific treatment of patients with such stings. 14. Discuss patient education related to prevention and management of anaphylaxis and allergic reactions. 15. Demonstrate how to use an EpiPen auto-injector. 16. Demonstrate how to draw epinephrine from a vial in the correct dosage amount in a syringe for both a pediatric and adult patient. 17. Demonstrate how to administer epinephrine into the correct IM sites in a safe manner. 18. Demonstrate how to remove a stinger from a bee sting and proper patient management following its removal.	2	1	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Toxicology	1. Define the terms toxicology, poison, and overdose. 2. Describe the routes by which poisons are absorbed in the body. 3. Discuss major toxidromes and their use in assessment and management of toxicologic emergencies. 4. Identify the common signs and symptoms of poisoning. 5. Discuss substance abuse and concepts associated with it. 6. Describe the assessment and treatment of a patient with suspected poisoning. 7. Describe the assessment and treatment of a patient with a possible overdose. 8. Understand the role of airway management in a patient with poisoning or overdose. 9. Explain the use of activated charcoal, including indications, contraindications, and the need to obtain approval from medical control before its administration. 10. Discuss emergencies related to severe intoxication, including alcoholism. 11. Explain the effects of each of the specific types of poisons: alcohol, narcotics, opiates, opioids, stimulants, marijuana, hallucinogens, sedative-hypnotic drugs, cardiac medications, other medications, organophosphates, inhalants, metals, and caustics. 12. Describe the assessment and treatment for the patient with suspected food poisoning. 13. Describe the assessment and treatment for the patient with suspected plant poisoning. 14. Demonstrate the steps in the assessment and treatment of the patient with suspected poisoning. 15. Demonstrate the steps in the assessment and treatment of the patient with suspected overdose. 16. Demonstrate the steps required to administer activated charcoal.	2	1	2
Psychiatric Emergencies	1. Discuss the potential causes of behavioral emergencies, including organic and functional causes. 2. Identify psychiatric signs and symptoms. 3. Describe the assessment process for patients with psychiatric emergencies, including safety guidelines and specific questions to ask. 4. Discuss risk factors that help indicate whether a patient may become violent. 5. Discuss the importance of history-taking when assessing a patient with a psychiatric emergency. 6. Discuss general management of a patient with a psychiatric emergency. 7. Explain the safe management of a potentially violent patient. 8. Discuss assessment and management of specific psychiatric emergencies. 9. Describe the care for a patient experiencing a psychotic episode. 10. Explain how to recognize the behavior of a patient at risk of suicide, and discuss the management of such a patient. 11. Define agitated delirium and describe the care for a patient with agitated delirium. 12. Discuss types of mood disorders and their management, including mania and depression. 13. Discuss types of neurotic disorders and their management, including generalized anxiety disorder, phobias, and panic disorder. 14. Discuss medicolegal considerations and their relevance in psychiatric emergencies. 15. Describe situations where restraint may be justified. 16. Describe methods used to restrain patients. 17. Explain the causes of post-traumatic stress disorder (PTSD), along with its signs and symptoms. 18. Describe the special needs of combat veterans and their management. 19. Demonstrate the techniques used to mechanically restrain a patient.	2	1	2

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Gynecologic Emergencies	1. Review the anatomy and physiology of the female reproductive system. 2. Describe abnormalities associated with the menstrual cycle, including premenstrual syndrome, mittelschmerz, and amenorrhea. 3. Discuss the pathophysiology of gynecologic emergencies, including pelvic inflammatory disease, sexually transmitted diseases, vaginal yeast infections, ruptured ovarian cyst, ectopic pregnancy, vaginal bleeding, endometritis, endometriosis, postpartum eclampsia, and sexual assault. 4. Explain the assessment process for patients with gynecologic emergencies. 5. Discuss the importance of history taking when assessing a patient with a gynecologic emergency. 6. Discuss the general management of a patient with a gynecologic emergency. 7. Discuss assessment and management of specific gynecologic emergencies, including pelvic inflammatory disease, ruptured ovarian cyst, ectopic pregnancy, and vaginal bleeding. 8. Discuss special considerations in the assessment and management of victims of sexual assault, including those related to maintaining patient confidentiality and preserving evidence of the crime.	2	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
60	30	45