



## **INSTRUCTIONAL PACKAGE**

**EMS 104**

**Emergency Medical Care I**

**Fall 2018**  
**201810**

# INSTRUCTIONAL PACKAGE

## PART I: COURSE INFORMATION

Effective Term: 201810 – Fall 2018

COURSE PREFIX: EMS 104

COURSE TITLE: Emergency Medical Care I

CONTACT HOURS: 6-3-7

CREDIT HOURS: 7

### **RATIONALE FOR THE COURSE:**

To develop a working knowledge of skills and modalities for the assessment and treatment of patients in the pre-hospital emergency environment.

### **COURSE DESCRIPTION:**

This course is a study of the preparatory, pharmacology, airway management, patient assessment, trauma and shock modules 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

Co-Requisite: None

### **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.

### **ADDITIONAL REQUIREMENTS:**

Stethoscope

Watch with second hand

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.  
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. 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**

### **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. Demonstrate the proper donning and doffing of protective gear appropriate for the EMT and situation.
2. Perform CPR, both 1 and 2 person for adult, child, and infant to Healthcare provider level consistent with American Heart Association level.
3. Perform basic airway mgt. techniques including insertion of adjuncts intended for the oropharynx and nasopharynx.
4. Demonstrate the ability to assist patients with their own prescribed medicines.
5. Assess, manage, and stabilize patients of all ages and demographics with medical emergencies.
6. Demonstrate the ability to properly prepare the patient for transport while limiting or aggravating any injuries.
7. Demonstrate the knowledge of triage and assigning patients to the appropriate level facility.
8. Demonstrate the ability to interact with other responders appropriately including giving and taking advice on patient care. Interact as a member of a team.
9. Demonstrate the ability to complete a patient care report including a summation of treatment provided to the receiving facility or transporting ambulance.

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

## **Module #1 – Chapters 1-4**

### **Material Covered:**

Chapter 1: Introduction to Emergency Medical Care  
Chapter 2: The Well-Being of the EMT  
Chapter 3: Lifting and Moving Patients  
Chapter 4: Medical, Legal and Ethical Issues

### **Assessments:**

Chapter quizzes located in Desire2Learn / EMS Testing  
Module #1 Test

### **Learning Outcomes:**

#### **Chapter 1: Introduction to Emergency Medical Care**

- 1.1 Define key terms introduced in this chapter.
- 1.2 Give an overview of the historical events leading to the development of modern Emergency Medical Services (EMS).
- 1.3 Describe the importance of each of the National Highway Traffic Safety Administration standards for assessing EMS systems.
- 1.4 Describe the components of an EMS system that must be in place for a patient to receive emergency medical care.
- 1.5 Compare and contrast the training and responsibilities of EMRs, EMTs, AEMTs, and Paramedics.
- 1.6 Explain each of the specific areas of responsibility for the EMT.
- 1.7 Give examples of the physical and personality traits that are desirable for EMTs.
- 1.8 Describe various job settings that may be available to EMTs.
- 1.9 Describe the purpose of the National Registry of Emergency Medical Technicians.
- 1.10 Explain the purpose of quality improvement programs in EMS programs.
- 1.11 Explain EMT's role in the quality improvement process.
- 1.12 Explain medical direction as it relates to EMS systems.
- 1.13 List ways in which research may influence EMT practice.
- 1.14 Give examples of how EMS providers can play a role in public health.
- 1.15 Given scenarios, decide how an EMT may demonstrate professional behavior.

#### **Chapter 2: The Well-Being of the EMT**

- 2.1 Define key terms introduced in this chapter.
- 2.2 Describe health habits that promote physical and mental well-being.
- 2.3 Given an example of a patient-care situation, determine the appropriate personal protective equipment to prevent exposure to infectious disease.
- 2.4 Describe proper procedures for hand washing and using alcohol-based hand cleaners.
- 2.5 Discuss the health concerns related to exposure to hepatitis B, hepatitis C, tuberculosis, and AIDS.
- 2.6 Access the Centers for Disease Control web site to obtain the latest information on diseases of concern to EMS providers.

- 2.7 Explain the essential provisions of OSHA, the CDC, the Ryan White CARE Act, and the Ryan White HIV/AIDS Treatment Extension Act of 2009 as they relate to infection control in EMS.
- 2.8 Describe the indications for use of an N-95 or HEPA respirator.
- 2.9 Describe the purpose of the tuberculin skin test (TST).
- 2.10 Give examples of common stressors in EMS work.
- 2.11 Describe the stages of the stress response, including the effects of each stage on the body.
- 2.12 Differentiate between acute, delayed, and cumulative stress reactions.
- 2.13 List lifestyle changes that can be used to manage stress.
- 2.14 Explain the purpose of critical incident stress management (CISM).
- 2.15 Given a scenario, recognize a patient's or family member's reaction to death and dying.
- 2.16 Given a scenario involving death or dying, use effective techniques for interacting with the patient and family members.
- 2.17 List indications of the potential for danger to yourself or others at the scene of an EMS call.
- 2.18 Outline proper responses to incidents including:
  - a. Hazardous material incidents
  - b. Terrorist incidents
  - c. Rescue operations
  - d. Violence
- 2.19 Given a scenario of an emergency response involving a safety threat, describe actions you should take to protect yourself and other EMS providers.
- 2.20 Identify with the feelings of a patient who has a communicable disease.
- 2.21 Promote the importance of safety on EMS calls.

### **Chapter 3: Lifting and Moving Patients**

- 3.1 Define key terms introduced in this chapter.
- 3.2 Describe the factors that you must consider before lifting any patient.
- 3.3 Use principles of proper body mechanics when lifting and moving patients and other heavy objects.
- 3.4 Demonstrate the power lift and power grip when lifting a patient-carrying device.
- 3.5 Follow principles of good body mechanics when reaching, pushing, and pulling.
- 3.6 Give examples of situations that require emergency, urgent, and non-urgent patient moves.
- 3.7 Demonstrate emergency, urgent, and non-urgent moves.
- 3.8 Given several scenarios, select the best patient-lifting and moving devices for each situation.
- 3.9 Demonstrate proper use of patient-lifting and carrying devices.
- 3.10 Differentiate between devices to be used to lift and carry patients with and without suspected spinal injuries.
- 3.11 Identify with the feelings of a patient EMS personnel are lifting or carrying.

## **Chapter 4: Medical/Legal and Ethical Issues**

- 4.1 Define key terms introduced in this chapter.
- 4.2 Describe your scope of practice as an EMT.
- 4.3 Differentiate between scope of practice and standard of care.
- 4.4 Given a variety of scenarios, determine which type of patient consent applies.
- 4.5 Given a variety of ethical dilemmas, discuss the issues that must be considered in each situation.
- 4.6 Explain legal and ethical considerations in situations where patients refuse care.
- 4.7 Discuss the EMT's obligations with respect to advance directives, including do not resuscitate orders.
- 4.8 Given a variety of scenarios, identify circumstances that may allow a claim of negligence to be established.
- 4.9 Explain the purpose of Good Samaritan laws.
- 4.10 Identify situations that would constitute a breach of patient confidentiality.
- 4.11 Identify situations that would constitute libel or slander.
- 4.12 Recognize medical identification devices and organ donor status.
- 4.13 List items that may be considered evidence at a crime scene.
- 4.14 Describe ways in which you can minimize your impact on evidence while meeting your obligations to care for your patient.
- 4.15 Recognize situations that may legally require reporting to authorities.
- 4.16 Given a scenario involving an ethical challenge, decide the most appropriate response for an EMT.

## **Module #2 – Chapters 5-8**

### **Material Covered:**

Chapter 5: Medical Terminology

Chapter 6: Anatomy and Physiology

Chapter 7: Ventilation, Perfusion, and Shock: Understanding Pathophysiology

Chapter 8: Life Span Development

### **Assessments:**

Chapter quizzes located in Desire2Learn / EMS Testing

Module #2 Test

### **Learning Outcomes:**

## **Chapter 5: Medical Terminology**

- 5.1 Define key terms introduced in this chapter.
- 5.2 Explain the importance of the proper use of medical terminology.
- 5.3 Apply definitions of common prefixes, suffixes, and roots to determine the meaning of medical terms.
- 5.4 Recognize when it is appropriate and when it is inappropriate to use acronyms and abbreviations.
- 5.5 Give examples of when it is better to use a common or lay term to describe something than it is to use a medical term.
- 5.6 Use anatomical terms of position and direction to describe the location of body structures and position of the body.

## **Chapter 6: Anatomy and Physiology**

- 6.1 Define key terms introduced in this chapter.
- 6.2 Describe the structures and functions of each of the following body systems:
  - a. Musculoskeletal
  - b. Respiratory
  - c. Cardiovascular
  - d. Nervous
  - e. Digestive
  - f. Integumentary
  - g. Endocrine
  - h. Renal
  - i. Male and female reproductive
- 6.3 Given a series of models or diagrams, label the anatomical structures of each of the following body systems:
  - a. Skeletal
  - b. Respiratory
  - c. Cardiovascular
  - d. Nervous
  - e. Skin
  - f. Endocrine
  - g. Renal/urinary
  - h. Male and female reproductive
- 6.4 Describe the differences in the respiratory anatomy of children as compared to adults.
- 6.5 Apply understanding of anatomy and physiology to explain the function of the life support chain.



## **Chapter 7: Ventilation, Perfusion, and Shock: Understanding Pathophysiology**

- 7.1 Define key terms introduced in this chapter.
- 7.2 Describe the basic roles and structures of body cells.
- 7.3 Describe the roles of water, glucose, and oxygen in the cell.
- 7.4 Describe conditions that can threaten cardiopulmonary function.
- 7.5 Explain how impaired cardiopulmonary function affects the body.
- 7.6 Discuss the mechanisms the body uses to compensate for impaired cardiopulmonary function.
- 7.7 Explain the pathophysiology of shock.
- 7.8 Identify signs and symptoms that indicate the body is attempting to compensate for impaired cardiopulmonary function.
- 7.9 Describe ways in which the body's fluid balance can become disrupted.
- 7.10 Recognize indications that the body's fluid balance has been disrupted.
- 7.11 Describe ways in which the nervous system may be impaired.
- 7.12 Recognize indications that the nervous system may be impaired.
- 7.13 Describe the effects on the body of:
  - a. Endocrine dysfunction
  - b. Digestive system dysfunction
  - c. Immune system dysfunction

## **Chapter 8: Life Span Development**

- 8.1 Define key terms introduced in this chapter.
- 8.2 Describe the physical and physiological characteristics, including normal vital signs, for individuals in each of the following age groups:
  - a. Infant
  - b. Toddler
  - c. Preschool age
  - d. School age
  - e. Adolescent
  - f. Early adult
  - g. Middle adult
  - h. Late adult
- 8.3 Describe the typical psychosocial characteristics and concerns of individuals at each stage during the life span.
- 8.4 Use knowledge of physical, physiological, and psychosocial development to anticipate the needs and concerns of patients of all ages.

## **Module #3 – Chapters 9-10**

### **Material Covered:**

Chapter 9: Airway Management

Chapter 10: Respirations and Artificial Ventilations

### **Assessments:**

Chapter quizzes located in Desire2Learn / EMS Testing

Module #3 Test

### **Learning Outcomes:**

#### **Chapter 9 – Airway Management**

- 9.1 Define key terms introduced in this chapter.
- 9.2 Describe the anatomy and physiology of the upper and lower airways.
- 9.3 Given a diagram or model, identify the structures of the upper and lower airways.
- 9.4 Describe common pathophysiologic problems leading to airway obstruction.
- 9.5 Demonstrate assessment of the airway in a variety of patient scenarios.
- 9.6 Associate abnormal airway sounds with likely pathophysiologic causes.
- 9.7 Identify patients who have an open airway but who are at risk for airway compromise.
- 9.8 Recognize patients who have an inadequate airway.
- 9.9 Demonstrate manually opening the airway in pediatric and adult medical and trauma patients.
  - a. Head-tilt, chin-lift maneuver
  - b. Jaw-thrust maneuver
- 9.10 Describe the indications, contraindications, use, and potential complications of airway adjuncts, including:
  - a. Oropharyngeal airway
  - b. Nasopharyngeal airway
- 9.11 Recognize the indications for suctioning of the mouth and oropharynx.
- 9.12 Describe risks and limitations associated with suctioning the mouth and oropharynx.
- 9.13 Demonstrate the following airway management skills:
  - a. Inserting an oropharyngeal airway
  - b. Inserting a nasopharyngeal airway
  - c. Suctioning the mouth and oropharynx
- 9.14 Describe modifications in airway management for pediatric patients, patients with facial trauma, and patients with airway obstruction.

## **Chapter 10: Respiration and Artificial Ventilation**

- 10.1 Define key terms introduced in this chapter.
- 10.2 Explain the physiological relationship between assessing and maintaining an open airway, assessing and ensuring adequate ventilation, and assessing and maintaining adequate circulation.
- 10.3 Describe the mechanics of ventilation.
- 10.4 Explain mechanisms that control the depth and rate of ventilation.
- 10.5 Explain the relationships between tidal volume, respiratory rate, minute volume, dead air space, and alveolar ventilation.
- 10.6 Describe the physiology of external and internal respiration.
- 10.7 Recognize patients at risk for failure of the cardiopulmonary system.
- 10.8 Differentiate between adequate breathing, inadequate breathing (respiratory failure), and respiratory arrest.
- 10.9 Use information from the scene size-up and patient assessment to anticipate hypoxia.
- 10.10 Given a variety of scenarios, differentiate between patients who require artificial ventilation and those who do not.
- 10.11 Identify patients who require administration of supplemental oxygen.
- 10.12 Discuss the potential negative effects of positive pressure ventilation, and how to minimize complications from positive pressure ventilation.
- 10.13 Demonstrate the following techniques of artificial respiration for pediatric (as applicable) and adult medical and trauma patients:
  - a. Mouth-to-mask
  - b. Two-rescuer bag-valve mask (BVM)
  - c. One-rescuer BVM
  - d. Flow-restricted, oxygen-powered ventilation device
  - e. Automatic transport ventilator (as permitted by local protocol)
- 10.14 Assess the adequacy of artificial ventilations.
- 10.15 Modify artificial ventilation and oxygen techniques for patients with stomas.
- 10.16 Discuss considerations for selecting the best device for delivering oxygen for a variety of patient scenarios.
- 10.17 Demonstrate administration of oxygen by:
  - a. Nonrebreather mask
  - b. Nasal cannula
- 10.18 Describe the purpose and use of partial rebreather masks, Venturi masks, and tracheostomy masks.
- 10.19 Demonstrate safe transport, storage, and use of oxygen.
- 10.20 Describe the purpose of each part of an oxygen delivery system.
- 10.21 Describe the use of humidified oxygen.

## **Module #4 – Chapters 11-13**

### **Material Covered:**

Chapter 11: Pharmacology

Chapter 12: Shock

Chapter 13: BLS Resuscitation

### **Assessments:**

Chapter quizzes located in Desire2Learn / EMS Testing

Module #4 Test

### **Learning Outcomes:**

#### **Chapter 11 Scene Size-Up**

- 11.1 Define key terms introduced in this chapter.
- 11.2 Explain the ongoing nature of scene size-up beyond the initial moments at the scene.
- 11.3 Given a scene-arrival scenario, list several examples of potential hazards for which the EMT should actively search.
- 11.4 Describe considerations in establishing a danger zone at the scene of a vehicle collision.
- 11.5 Recognize indications of possible crime scenes and the potential for violence.
- 11.6 Use information from the scene size-up to make decisions about the use of Standard Precautions to protect against disease exposure.
- 11.7 Use information from the scene size-up to determine the mechanism of injury or nature of the illness.
- 11.8 Explain the importance of determining the number of patients and the need for additional resources in the scene size-up.
- 11.9 Given a number of scenarios, perform a scene size-up, including:
  - a. Recognizing potential dangers
  - b. Making decisions about body substance isolation
  - c. Determining the nature of the illness or mechanism of injury
  - d. Determining the number of patients
  - e. Determining the need for additional resources

#### **Chapter 12: The Primary Assessment**

- 12.1 Define key terms introduced in this chapter.
- 12.2 Explain the purpose of the primary assessment.
- 12.3 Discuss the difference in first steps to assessment if the patient is apparently lifeless (C-A-B approach) or if the patient has signs of life, including a pulse (A-B-C approach).
- 12.4 Given several scenarios, do the following:
  - a. Form a general impression
  - b. Determine the chief complaint

- c. Determine the patient's mental status
  - d. Assess the airway
  - e. Assess breathing
  - f. Assess circulation
  - g. Determine the patient's priority for transport
- 12.5 Recognize findings in the primary assessment that require immediate intervention.
- 12.6 Differentiate the approach to the primary assessment based on the following:
- a. Mechanism of injury/nature of the illness and level of responsiveness
  - b. Patient's age (adult, child, or infant)

### **Chapter 13: Vital Signs and Monitoring Devices**

- 13.1 Define key terms introduced in this chapter.
- 13.2 Identify the vital signs used in prehospital patient assessment.
- 13.3 Explain the use of vital signs in patient care decision making.
- 13.4 Integrate assessment of vital signs into the patient assessment process, according to the patient's condition and the situation.
- 13.5 Discuss the importance of documenting vital signs and the times they were obtained in the patient care record.
- 13.6 Demonstrate assessment of:
- a. Pulse
  - b. Respirations
  - c. Skin
  - d. Pupils
  - e. Blood pressure
  - f. Oxygen saturation
  - g. Blood glucose
- 13.7 Integrate assessment of mental status and ongoing attention to the primary assessment while obtaining vital signs.
- 13.8 Differentiate between vital signs that are within expected ranges for a given patient and those that are not.
- 13.9 Compare and contrast the techniques of assessment and expected vital sign values for pediatric and adult patients.

### **Module #5 – Chapters 14-18**

#### **Material Covered:**

- Chapter 14: Medical Overview
- Chapter 15: Respiratory Emergencies
- Chapter 16: Cardiovascular Emergencies
- Chapter 17: Neurogenic Emergencies
- Chapter 18: GI & GU Emergencies

**Assessments:**

Chapter quizzes located in Desire2Learn / EMS Testing  
Module #5 Test

**Learning Outcomes:****Chapter 14: The Secondary Assessment**

- 14.1 Define key terms introduced in this chapter.
- 14.2 List and explain the components of the secondary assessment.
- 14.3 List and explain techniques of assessment.
- 14.4 Discuss the application of critical thinking, judgment, and decision making to the process of assessment.
- 14.5 Describe body system examinations for:
  - a. The respiratory system
  - b. The cardiovascular system
  - c. The nervous system
  - d. The endocrine system
  - e. The gastrointestinal system
  - f. The immune system
  - g. The musculoskeletal system
- 14.6 Explain how to conduct the secondary assessment of a responsive medical patient.
- 14.7 Explain how to conduct the secondary assessment of an unresponsive medical patient.
- 14.8 Explain how to conduct the secondary assessment of a trauma patient with an isolated or minor injury.
- 14.9 Explain how to conduct the secondary assessment of a trauma patient who is unstable or has multisystem trauma.
- 14.10 Explain how to obtain a history of the present illness/injury from a patient.
- 14.11 Explain how to obtain a past medical history from a patient.
- 14.12 Discuss the reason for and methods of observing trends during reassessment.
- 14.13 Differentiate between a stable patient and an unstable patient, and discuss how to conduct an appropriate reassessment for each.
- 14.14 Relate critical thinking to the assessment and care performed by an EMT.

**Chapter 15: Communication and Documentation**

- 15.1 Define key terms introduced in this chapter.
- 15.2 Describe the role of communication technology in EMS systems.
- 15.3 Describe various types of communication devices and equipment used in EMS system communication.
- 15.4 Explain the role of the Federal Communications Commission as it relates to EMS system communication.
- 15.5 Discuss how to communicate effectively by radio with dispatch and hospital personnel.
- 15.6 Provide a thorough, organized, concise report of pertinent patient information when giving a radio

- report or requesting orders.
- 15.7 Explain the importance of asking for information to be repeated for confirmation and clarification.
  - 15.8 Deliver an organized, complete, concise report of pertinent patient information when giving a verbal report to receiving hospital personnel.
  - 15.9 Demonstrate principles and techniques of effective verbal and nonverbal interpersonal communication.
  - 15.10 Adapt communication principles for effective interaction with patients of various ages and cultures.
  - 15.11 Complete a prehospital care report in the format or formats required by your service.
  - 15.12 Understand legal issues and special situations associated with documentation.

## **Chapter 16: General Pharmacology**

- 16.1 Define key terms introduced in this chapter.
- 16.2 List the drugs in your scope of practice.
- 16.3 For each medication you may administer or assist a patient in self-administering, describe the following:
  - a. Generic and common trade names
  - b. Indication(s)
  - c. Contraindications
  - d. Side effects and untoward effects
  - e. Form(s)
  - f. Route(s) of administration
- 16.4 Follow principles of medication administration safety, including the five rights of medication administration.
- 16.5 Discuss the importance of looking up medications and requesting information from medical direction when needed.
- 16.6 Identify the type of medical direction (on-line or off-line) required to administer each medication in the scope of practice.
- 16.7 Describe the characteristics of the oral, sublingual, inhaled, intravenous, intramuscular, subcutaneous, and endotracheal routes of administration.
- 16.8 Identify special considerations in medication administration related to patients' ages and weights.
- 16.9 Explain the importance of accurate documentation of drug administration and patient reassessment following drug administration.
- 16.10 Discuss the importance of having readily available references to identify drugs commonly taken by patients.
- 16.11 Discuss the steps an EMT may take in assisting with IV therapy.

## **Chapter 17: Respiratory Emergencies**

- 17.1 Define key terms introduced in this chapter.
- 17.2 Describe the anatomy and physiology of respiration.
- 17.3 Differentiate between adequate and inadequate breathing based on the rate, rhythm, and quality of breathing.
- 17.4 Discuss differences between the adult and pediatric airways and respiratory systems.
- 17.5 Recognize signs of inadequate breathing in pediatric patients.
- 17.6 Provide supplemental oxygen and assisted ventilation as needed for patients with inadequate breathing.
- 17.7 Assess the effectiveness of artificial ventilation.
- 17.8 Recognize the patient with difficulty breathing.
- 17.9 Given a scenario, perform an assessment and take the history of a variety of patients with difficulty breathing.
- 17.10 Recognize abnormal breath sounds, including wheezes, crackles, rhonchi, and stridor.
- 17.11 Assist a patient with administration of a prescribed bronchodilator by inhaler or small-volume nebulizer, as permitted by medical direction.
- 17.12 Use CPAP to assist the patient with difficulty breathing, as permitted by medical direction.
- 17.13 Recognize the indications, contraindications, risks, and side effects of CPAP.
- 17.14 Describe the pathophysiology, signs, and symptoms of:
  - a. COPD
  - b. Asthma
  - c. Pulmonary edema
  - d. Pneumonia
  - e. Spontaneous pneumothorax
  - f. Pulmonary embolism
  - g. Epiglottitis
  - h. Cystic fibrosis
  - i. Viral respiratory infections
- 17.15 Given a scenario, provide treatment for a variety of patients with difficulty breathing.

## **Chapter 18: Cardiac Emergencies**

- 18.1 Define key terms introduced in this chapter.
- 18.2 Describe the anatomy and physiology of the cardiovascular system.
- 18.3 Define acute coronary syndrome and discuss its most common signs and symptoms.
- 18.4 Discuss the management of a patient with acute coronary syndrome.
- 18.5 Discuss the indications, contraindications, dosage, and administration of nitroglycerin to a patient with chest pain.
- 18.6 Discuss the indications (including conditions that must be met), contraindications, and administration of aspirin to a patient with chest pain.



- 18.7 Discuss the following conditions and how each may lead to a cardiac emergency:
- a. Coronary artery disease (CAD)
  - b. Aneurysm
  - c. Electrical malfunctions of the heart
  - d. Mechanical malfunctions of the heart
  - e. Angina pectoris
  - f. Acute myocardial infarction (AMI)
  - g. Congestive heart failure (CHF)
- 18.8 Discuss the following factors in the chain of survival and how each may contribute to patient survival of cardiac arrest:
- a. Immediate recognition and activation
  - b. Early cardiopulmonary resuscitation (CPR)
  - c. Rapid defibrillation
  - d. Effective advanced life support
  - e. Integrated post–cardiac arrest care
- 18.9 List the skills necessary for the EMT to manage a patient in cardiac arrest.
- 18.10 Discuss types of automated external defibrillators (AEDs) and how AEDs work.
- 18.11 Discuss the effective coordination of CPR and AED for a patient in cardiac arrest.
- 18.12 Discuss special considerations for AED use, including general principles, coordination with others, and post-resuscitation care.
- 18.13 Discuss the purpose and use of mechanical CPR devices.

## **Module #6 – Chapters 19-23**

### **Material Covered:**

Chapter 19: Diabetic Emergencies and Altered Mental Status  
Chapter 20: Allergic Reaction  
Chapter 21: Poisoning and Overdose Emergencies  
Chapter 22: Abdominal Emergencies  
Chapter 23: Behavioral Emergencies and Suicide

### **Assessments:**

Chapter quizzes located in Desire2Learn / EMS Testing  
Module #6 Test

### **Chapter 19 – Diabetic Emergencies and Altered Mental Status**

- 19.1 Define key terms introduced in this chapter.
- 19.2 Consider several possible causes of altered mental status when given scenarios involving patients with alterations in mental status.
- 19.3 Describe the basic physiological requirements for maintaining consciousness.
- 19.4 Perform primary and secondary assessments on patients with altered mental status.
- 19.5 Describe the pathophysiology of diabetes and diabetic emergencies.
- 19.6 Determine a patient's blood glucose level using a blood glucose meter, as allowed by local protocol.
- 19.7 Develop a plan to manage patients with diabetic emergencies involving hyperglycemia and hypoglycemia.
- 19.8 Recognize the signs, symptoms, and history consistent with other causes of altered mental status, including seizures, stroke, dizziness, and syncope.
- 19.9 Given a variety of scenarios involving patients with seizures, search for potential underlying causes.
- 19.10 Develop a plan to assess and manage patients who are having or who have just had a seizure.
- 19.11 Explain the causes of strokes.
- 19.12 Develop a plan to assess and manage patients who are exhibiting signs and symptoms of a stroke.
- 19.13 Given a scenario of a patient complaining of dizziness or syncope, search for potential underlying causes.
- 19.14 Develop a plan to assess and manage patients with complaints of dizziness and syncope.

### **Chapter 20: Allergic Reaction**

- 20.1 Define key terms introduced in this chapter.
- 20.2 Differentiate between the signs and symptoms of an allergic reaction and those of an anaphylactic reaction.
- 20.3 Describe the relationship between allergens and antibodies necessary for an allergic reaction to occur.
- 20.4 Describe the effects of histamine and other chemicals in producing the signs and symptoms of anaphylaxis.
- 20.5 List common allergens.

- 20.6 Prioritize the steps in assessment and management of patients with allergic and anaphylactic reactions.
- 20.7 Recognize the indications for administering and assisting a patient in the use of an epinephrine auto-injector.
- 20.8 Describe the desired effects and side effects associated with the administration of epinephrine.
- 20.9 Demonstrate administration of epinephrine by auto-injector.
- 20.10 Describe the considerations in reassessment of patients with allergic and anaphylactic reactions.

## **Chapter 21: Poisoning and Overdose**

- 21.1 Define key terms introduced in this chapter.
- 21.2 Describe the ways in which poisons can enter the body.
- 21.3 Identify potential dangers to EMS providers and others at scenes where poisoning, alcohol abuse, or substance abuse is involved.
- 21.4 Collect key elements in the history of a patient who has been poisoned.
- 21.5 Describe the use of activated charcoal in the management of ingested poisons.
- 21.6 Explain the management of patients who have ingested a poison.
- 21.7 Develop a plan for managing patients who have inhaled poisons.
- 21.8 Develop a plan for managing patients who have absorbed poisons through the skin.
- 21.9 Describe the health risks associated with alcohol abuse.
- 21.10 Recognize the signs and symptoms of alcohol abuse and alcohol withdrawal.
- 21.11 Recognize signs, symptoms, and health risks associated with abuse of substances, including stimulants, depressants, narcotics, volatile chemicals, and hallucinogens.
- 21.12 Given a variety of scenarios, develop a treatment plan for patients with emergencies related to alcohol and substance abuse.

## **Chapter 22: Abdominal Emergencies**

- 22.1 Define key terms introduced in this chapter.
- 22.2 Describe the location, structure, and function of the organs in the abdominal cavity.
- 22.3 Explain the origins and characteristics of visceral, parietal, and tearing pain.
- 22.4 Associate areas of referred pain with the likely origins of the pain.
- 22.5 Recognize the common signs and symptoms of abdominal conditions, including appendicitis, peritonitis, cholecystitis, pancreatitis, ulcers, abdominal aortic aneurysm, hernia, and renal colic.
- 22.6 Discuss the type of abdominal pain that may indicate cardiac involvement.
- 22.7 Discuss appropriate assessment and management of patients complaining of abdominal pain.
- 22.8 Elicit key information in the history of patients complaining of abdominal pain, including history specific to female patients.

## 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%
	<hr/>
	100%

*\*Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.*

#### 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 a 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 (one lab session).

## **Part V: Student Resources**

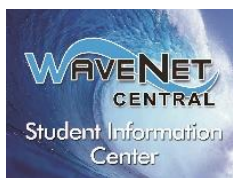


### **The Student Success and Tutoring Center (SSTC)**

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. Room locations and Live Chat is available on the SSTC website.



### **Student Information Center: WaveNet Central (WNC)**

WNC offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

## Disability Services

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Jocelyn Williams, 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, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

### ***Title IX Requirements***

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

\*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).

<b>Inquiries regarding the non-discrimination policies:</b>	
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 Associate 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 Associate Vice President for Human Resources.
<b>Dr. Melissa Batten, AVP Student Affairs</b> <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a>	<b>Jacquelyne Snyder, AVP Human Resources</b> <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 <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a>

## Accident Occurring On or Off Campus

Accidents involving Faculty, Staff and Student Workers (work-study, clinical student or students on a required internship):

An accident/illness involving faculty, staff or student worker must be reported immediately to the Human Resources Department (843.349.7134) before seeking medical treatment, if possible, so an accident/incident report can be completed and Worker’s Compensation can be notified. In the event someone in Human Resources cannot be notified, the injured party may contact the College’s Worker’s Compensation insurance carrier, CompEndium Services, to complete an accident/incident report and to receive clearance for treatment at 877.709.2667. If the incident is an emergency, please notify Human Resources as soon as the proper medical attention has been rendered for verification of workers’ compensation coverage.

In any event, if an accident occurs, proper documentation needs to be completed. An accident report needs to be filled out stating the name of the injured party, the location of the accident, his/her identification number (social or H number), his/her address & phone number, the date & time of the accident, whether there were witnesses, and a brief description of what occurred. Attached is a copy of the Accident/Incident Report form. A copy of the report needs to be distributed to the following departments: Human Resources, the respective Supervisor, and the Dean/Provost of the specific campus.

If you need to go to the doctor’s office, the following locations work in conjunction with our Worker’s Compensation:

Doctors Care - Carolina Forest	200 Middleburg Dr. Myrtle Beach, SC 29579	Mon-Fri 8am-8pm Sat/Sun 9am-5pm	843-903-6650
Doctors Care - North Myrtle Beach	1714 Hwy 17 Myrtle Beach, SC 29582	Every day 8am-8pm	843-361-0705
Doctors Care - Strand Medical	1220 21st Ave. Myrtle Beach, SC	Every day 8am-8pm	843-626-9379
Doctors Care - Church Street (Hwy 501)	1113 Church St Conway, SC	Every day 8am-8pm	843-248-6269
Doctors Care – Georgetown	1068 North Frazier St Georgetown, SC 29440	Mon-Fri 8am-8pm Sat/Sun 9am-5pm	843-545-7200