

## LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

### **SPECIAL NOTE:**

This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

### **TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):**

Please check with the LCC bookstore <http://www.labette.edu/bookstore> for the required texts for this class.

**COURSE NUMBER:** HEAL 190

**COURSE TITLE:** ADVANCED EMERGENCY MEDICAL TECHNICIAN

**SEMESTER CREDIT HOURS:** 9 credit hours

**DEPARTMENT:** Workforce Ed Career Training & Personal Enrichment

**DIVISION:** Continuing Education/Workforce

**PREREQUISITES:** Must hold current and active certification as a Kansas Emergency Medical Technician (EMT) Satisfaction of LCC EMT admission standards

**REVISION DATE:** October 2018

### **COURSE DESCRIPTION:**

The Advanced Emergency Medical Technician (AEMT) course consists of both classroom (didactic) and skills lab components. Advanced Emergency Medical Technicians function as part of a comprehensive EMS response under medical oversight. This course will enable the student to provide assessment and pre-hospital emergency care to patients experiencing trauma or medical emergencies utilizing National Standard Guidelines Scope of Practice (NSGSP) and the Kansas Authorized Activities for the AEMT with the focus on achieving competencies needed to function as an AEMT.

The student will practice and be evaluated on the skills required for the assessment and management of traumatic and medical emergencies. The student will be evaluated in the classroom only for this course. Upon successful completion of the AEMT course the student enrolls in the AEMT Clinical and Field Internship course. Once the student successfully completes the AEMT course and the AEMT Clinical and Field Internship (FI) course, the student is allowed to challenge the exams to become a Kansas and National Registered AEMT.

### **COURSE OUTCOMES AND COMPETENCIES:**

**Students who successfully complete this course will be able to:**

1. Apply the multiple determinants of professional roles and responsibilities of operating as an AEMT in the pre-hospital emergency care setting including but not limited to knowledge of the EMS system, safety/well-being of the AEMT, and medical/legal and ethical issues to the provision of emergency care.

- Demonstrate knowledge of continuous quality improvement, patient safety, maintenance of certification and licensure.
- Identify high risk activities and procedures if encountered.
- Demonstrate principles of medical documentation and report writing.
- Identify principles and procedures for special situations, reports, and incident reporting.
- Demonstrate effective and appropriate use of transmitting devices and communication to other healthcare professionals.
- Communicates with patients professionally and that achieves a positive relationship.
- Implement professional standards and scope of practice within legal, ethical, and regulatory frameworks.
- Demonstrate effective communication methods to manage client needs and to interact with other health care team members.
- Utilize critical thinking to assess the patient in prehospital setting.

2. Demonstrate a working knowledge of human anatomy, physiology and medical terminology.

- Differentiate between accepted standard and nonstandard medical symbols and abbreviations.
- Use common medical terminology in communication with other health care providers, including documentation.
- Identify the anatomy and explain the basic physiology of the different body systems.
- Identify signs and symptoms specific to selected disease processes.
- Explain the abnormalities of anatomy and physiology, which are manifested in the disease process.

3. Apply legal and ethical principles pertaining to emergency medical technology, ambulance operations, and basic triage in a variety of settings.

- Discuss legal and ethical issues as it pertains to the AEMT authorization to practice.
- Identify the Standards of Practice.
- Discuss patient safety as it relates to significance, incidence, high-risk activities, and prevention of errors.
- Explain the National Trauma Triage Protocol.
- Discuss public health issues and identify role in a public health emergency.

4. Applies fundamental knowledge of upper airway anatomy and physiology in order to provide basic and selected advanced emergency care (life support-airway management, adequate ventilation, and respiration) and transportation based on assessment findings for patients of all ages in shock, respiratory failure or arrest, cardiac failure or arrest and post resuscitation management.

- Demonstrate Cardiopulmonary Resuscitation (CPR), use an automated External Defibrillator (AED), and administration of medications.
- Perform a comprehensive ventilation assessment.
- Identify life threatening cardiac arrhythmias.
- Recognize and apply the cardiac arrest algorithm and algorithms for life threatening cardiac dysrhythmias.
- Discuss ethical issues in resuscitation.
- Demonstrate knowledge of upper airway anatomy and physiology.
- Performs techniques to assure a patent airway.
- Demonstrates knowledge of pathophysiology of respiration.
- Contrast difference between normal and positive pressure ventilation.

5. Apply scene information to guide emergency management of patients by using scene size up information, patient findings related to primary and secondary assessment, patient history, and reassessment.

- Identify major components of the patient assessment (precautions, scene size-up, general impression, initial assessment, SAMPLE, OPQRST, and baseline vital signs).
- Make decisions and create problem-solving approaches that are made during the patient assessment process and patient care process.
- Demonstrate a complete patient assessment and assessment of vital signs in a lab setting.
- Distinguish between stable, potentially unstable, and unstable.
- Identify indications of immediate threats to life.
- Assess priority for patient transport.
- Determine the processes of gaining and maintaining control of the scene, teamwork, and reducing the patient's anxiety in preparation for obtaining the history and assessing the patient.

6. Apply fundamental knowledge in the multiple determinants of age-related patient management of a medical patient including but not limited to neurological emergencies, abdominal/intestinal emergencies, immunological emergencies, genitourinary/renal emergencies, infectious diseases, endocrine/hematologic emergencies, cardiovascular emergencies, respiratory emergencies, psychiatric emergencies, toxicological emergencies, gynecological emergencies, and operational emergencies associated with care as an AEMT.

- Explain the importance of accurate assessment and documentation of vital signs.
- Determine whether a heart rate, respirations, and blood pressure value is consistent with expected values for the patient's age and gender.

- Describe factors and limitations that should be considered when interpreting the meaning of pulse oximetry findings.
- Identify and demonstrate the correct procedure for patient assessment
- Perform a rapid trauma assessment in the lab setting.
- Perform a detailed trauma assessment in the lab setting.
- Describe what is involved in an ongoing trauma assessment.
- Determine the frequency with which vital signs should be reassessed.
- Compare and contrast approaches to the secondary assessment of medical and trauma patients.
- Develop treatment plans for patients presenting with conditions and disorders of the different body systems.
- Demonstrate the ability to devise and execute appropriate treatment plans for medical and trauma patients.

7. Demonstrate proper use of techniques and equipment used in the AEMT level management of a sick or injured patient.

- Demonstrate the proper use of airway adjuncts, oxygen therapy and ventilation devices.
- Apply splints and wound care appropriately to affected sites.
- Demonstrate the ability to apply and interpret EKG's.
- Identify purpose, indications and procedure for blood glucose determination.

8. Demonstrates fundamental knowledge of the appropriate indications, contraindications, administration techniques, documentation and reassessment of medications carried by AEMT's that may be administered to a patient in an emergency.

- Explain the pharmacologic terms abbreviations and symbols using a prepared medication administration.
- Discuss policy and legal considerations in medication administration.
- Describe the responsibility of the AEMT in administering medication safely.
- Explain the concept of medical asepsis.
- Identify the pharmacological actions/interactions/incompatibilities.
- Explain toxicity, synergism, antagonism, and adverse effects of drugs.
- Identify the names and mechanism of action, indications, contraindications, complications, routes of administration, side effects, interactions, dose and specific administration consideration for all emergency medications and intravenous fluids provided in the Kansas AEMT list of medications.
- Summarize the effects of drug dosages and routes on pharmacodynamics and pharmacokinetics.
- Demonstrate the role in safe administration of medications.
- Demonstrate the proper initiation and use of intravenous cannulation.
- Demonstrate the proper initiation and use of intraosseous cannulation (pediatric).
- Demonstrate proper technique in administering intravenous, subcutaneous or intramuscular medications
- Demonstrate proper techniques in administering inhaled medications

9. Demonstrate fundamental knowledge of growth, development and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs.

- Describe the management of respiratory emergencies, seizures, trauma, shock, obstetric and neonatal care, and possible abuse.
- Describe the management of fluid resuscitation in the elderly.
- Identify and assess signs of abuse and neglect.
- Discuss homeless and poverty and identify resources
- Discuss issues relating to the bariatric patient, the patient with a developmental disability, the technology assisted/dependent patient, patients on hospice or are terminally ill, the patient with a tracheostomy, the patient with sensory impairments, and the paralyzed patient.

10. Demonstrate comprehensive knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

- Describe the two general classifications of body fluids and their roles in homeostasis.
- Identify major body electrolytes and their roles in homeostasis.
- Differentiate between osmosis and diffusion and the importance of each regulating fluid.
- Identify three mechanisms the body uses to regulate acid-base balance.
- Describe two factors necessary for perfusion to occur.
- Describe three components of blood and their function.
- Describe signs and symptoms of dehydration and over-hydration.

11. Demonstrate fundamental knowledge in operational roles and responsibilities

- Discuss safe air medical operations in and around a landing zone.
- Describe safe clinical management of patients during an air medical operation.
- Identify the role of EMS in Vehicle Extrication.
- Identify safety methods for the EMS personnel and the patient.
- Discuss safety in a variety of different situations including extrication, hazards, vehicle stabilization.
- Examine the risks and responsibilities of operating in a Cold Zone at a Hazardous Material or other special incident.