

COURSE OUTLINE

Emergency Medical Technician - Intermediate

Course Description

AH 210. Emergency Medical Technician-Intermediate: 6 hours credit. Prerequisite: AH 110 or AH 212 with a C or better. The student must be 17 years of age, be current on immunizations, pass a background check and have (or be waiting on) current Kansas Emergency Medical Technician Basic (EMT-B) Certification with or without National Registry Certification. This course will enable the student to provide assessment and pre-hospital emergency care to patients experiencing trauma or medical emergencies utilizing guidelines from the 1985 National Standard Curriculum and the Kansas Authorized Activities for the Emergency Medical Technician Intermediate (EMT-I) Supplement. The student will learn advanced procedures in airway management anatomy and physiology and management of the compromised airway in the Advanced Life Support (ALS) arena, intravenous therapy skills, blood draw skills to assist in the understanding of blood anatomy and the acid base balance in blood, and medication review as authorized by the Kansas Board of Emergency Medical Technicians for the EMT-I. Clinical experience in a hospital and Field Internship in the EMS setting are required.

Course Relevance

The principles learned in this course are intended to enable the student to review the signs and symptoms of common medical emergencies at the EMT-B level management of sick or injured people. Successful completion of EMT- I skills and written exams will allow the student to challenge the exams to become a Kansas certified EMT-I.

Required Materials

American Academy of Orthopedic Surgeons. (2005). *Intermediate emergency care and transportation of the sick and injured*. Sudbury, MA: Jones and Bartlett Publishers

Beck, R., and Pollak. (2006). *BLS for healthcare providers*. Dallas, TX: American Heart Association

Learning Outcomes

The intention is for the student to be able to

1. Prioritize and perform quality patient emergency care at the EMT-I level.
2. Demonstrate techniques in airway management and resuscitation on patients with an airway emergency using basic and advanced techniques
3. Assess patients in pre-hospital and clinical environment suffering from shock, initiating appropriate care of that patient utilizing advanced skills within the scope of practice of EMT-I training and certification
4. Perform critical decision-making in ALS intermediate treatment of care to patients

Primary Learning PACT skills that will be DEVELOPED and/or documented in this course

1. Field-Related Technology

- Each student will be evaluated on their practical skills according to the National Curriculum, 1985, and the Kansas State Enrichment regulations set forth by the Board of Emergency Services of Kansas. The same skills evaluation tools (check sheets) will be utilized.

Secondary Skills developed but not documented:

Leadership
Teamwork
Critical Thinking
Ethical Conduct
Speaking
Nonverbal Communication
Problem Solving

Major Summative Assessment Task(s)

These learning outcomes and primary Learning PACT skills will be demonstrated by:

1. Completion of a summative scenario, beginning with dispatch through transfer of care to a receiving facility. In this scenario, the student will demonstrate assessment of patients, priorities of care, advanced airway management and advanced treatment of shock and additional advanced skills.

Course Content

- I. Themes – Key recurring concepts that run throughout this course:
 - A. Recognition and treatment of life threatening and non-life threatening emergencies
 - B. Role of the EMT-Intermediate in the health care system
 - C. Personal and scene safety issues
- II. Issues – Key areas of conflict that must be understood in order to achieve the intended outcome:
 - A. Type of assessment and emergency care needed for each emergency situation
 - B. Intravenous therapy and the consideration of blood draw applications and Advanced Airway techniques
- III. Concepts – Key concepts that must be understood to address the issues:
 - A. Benefits of patient care on scene compared with delayed hospital transport
 - B. Critical thinking to the advanced level of patient care techniques and applications
- IV. Skills/Competencies – Actions that are essential to achieve the course outcomes:
 - A. Exposure to a variety of medical and trauma situations in Pre-hospital and Clinical environment
 - B. Demonstrates patient assessment and properly applying BLS and ALS level intermediate skills and knowledge with the allowed patient assisted medications

and Kansas State Enrichment medications allotment, IV therapy and blood draw therapy

- C. Verbally and in writing communicate a description of the scene, patient assessment and pertinent critical interventions taken

Learning Units

- I. Preparation to be an EMT-Intermediate
 - A. Introduction to emergency medical care
 - B. Well-being of the EMT-Intermediate
 - C. Medical/Legal and ethical issues
 - D. The human body

- II. Pharmacology and intravenous therapy
 - A. Pharmacology at the EMT-Basic level and the Kansas Enrichments
 - B. Intravenous access
 - C. Medication administration, Kansas State Enrichments

- III. Airway
 - A. Airway management and ventilation

- IV. Patient assessment
 - A. Patient assessment
 - B. Documentation

- V. Trauma
 - A. Trauma systems and mechanisms of injury
 - B. Hemorrhage and shock
 - C. Burns and soft tissue
 - D. Thoracic trauma
 - E. Abdomen and genitalia injuries
 - F. Head and spine injuries
 - G. Musculoskeletal care

- VI. Medical emergencies
 - A. Respiratory emergencies
 - B. Cardiovascular emergencies
 - C. Diabetic emergencies
 - D. Allergic reaction and envenomations
 - E. Poisoning and overdose emergencies
 - F. Neurological emergencies
 - G. Non-traumatic emergencies
 - H. Environmental emergencies
 - I. Behavioral emergencies
 - J. Gynecological emergencies

VII. Special considerations

- A. Obstetric emergencies
- B. Neonatal emergencies
- C. Pediatric emergencies
- D. Geriatric emergencies

VIII. Operations

- A. Ambulance operations
- B. Lifting and moving
- C. Gaining access
- D. Special operations
- E. Response to terrorism and weapons of mass destruction

IX. Kansas and enrichments

- A. Assessment-based management
- B. BLS review
- C. Epi-pen
- D. Blood glucose monitoring
- E. Pulse Oximetry
- F. Nebulized breathing treatments
- G. Aspirin

Learning Activities

Learning activities will be presented and evaluated for the successful goal of achieving competencies needed to function as an EMT-Intermediate in the State of Kansas. A variety of independent and collaborative learning activities will be provided as well as many graded evaluation tools to give the student every opportunity to challenge and successfully complete the class and certification process. Clinical experiences in an emergency room and advanced airway facility, plus ambulance interactions in the field with qualified and experienced ALS provider approved by the Kansas Board of Emergency Medical Service is provided and required in this class.

Grade Determination

The student will be graded on completion of assigned tasks which includes class participation, quizzes, unit tests and a comprehensive written final examination on written (cognitive and affective assessment) and the summative assessment task. A 90% attendance is also required by State Statute for successful completion of this course.