

MANHATTAN AREA TECHNICAL COLLEGE

Course Outline

EMS 200 Advanced Emergency Medical Technician
9 Credit Hours

Course Description

This course is sponsored by Manhattan Area Technical College and is approved by the Kansas Board of Emergency Medical Services. It is based on current information and techniques considered the responsibility of the Advanced Emergency Medical Technician (AEMT), according to the National Highway Traffic and Safety Administration, National Standard Curriculum, as enriched by the Kansas Board of EMS. This course exceeds the state and national requirements.

This course consists of a minimum of 160 hours of didactic and psychomotor skills instruction to include skills demonstrations, clinical and field experience, with a minimum of 60 hours on a contracted ambulance service or contrived experiences may be substituted.

The course will also contain simulated experiences in patient care and handling. This knowledge must be learned and maintained in order to function effectively as an AEMT, as it is an applied science.

Prerequisite(s)

Kansas Board of Emergency Medical Services EMT Certification

Purpose of Course

This course is designed to provide the student with the necessary skills and competencies to sit for the Advanced Emergency Medical Technician State Exam and the National Registry of EMT's Exam.

Required Textbook

Textbook(s) : Alexander, Melissa; Belle, Richard; Weiss, Steven MD. (2017). *Advanced EMT, A Clinical-Reasoning Approach* (2nd Edition.). Pearson. ISBN: 9780134420127.

Required Materials

Uniform: A maroon Manhattan Tech polo (provided by MATC) and blue/black EMT type pants.

Shoes: Students are to have black shoes/boots for hospital and field internship use. **NO** canvas, sandals, clogs, heels, or croc-like shoes are allowed. Shoes must be consistent with hospital/ambulance service policies. Shoes must be clean.

Watch: Students are to have a watch able to mark seconds. Expensive watches ARE NOT recommended.

Name Badge: College ID badge will be used for identification in the Hospital/Field Internship environment.

Technology: A personal computer (Windows operating system recommended) with a high-speed internet connection is strongly encouraged. Computers are available at the Teaching and Learning Center for study purposes.

Learning Outcomes and Competencies

The learner will demonstrate proficiency in adult, child, and infant CPR procedures and skills.

1. The learner will demonstrate adult obstructed airway maneuvers.
2. The learner will demonstrate adult CPR procedures.
3. The learner will demonstrate child obstructed airway maneuvers.
4. The learner will demonstrate child CPR procedures.
5. The learner will demonstrate infant obstructed airway maneuvers.
6. The learner will demonstrate infant CPR procedures.
7. The learner will demonstrate rescue breathing for adult, child and infants.
8. The learner will discuss use of the Automatic external defibrillator and resuscitation of the cardiac arrest patient.
9. The learner will relate risk factors associated to heart disease & strokes.
10. The learner will pass CPR written exam with score of 84% or higher.
11. IF YOU CANNOT PASS THE WRITTEN EXAMINATION AFTER TWO (2) ATTEMPTS, YOU WILL NOT BE ALLOWED TO CONTINUE IN THE AEMT COURSE. YOU WILL NEED TO WITHDRAW FROM CLASS.

The learner will discuss the responsibilities and the well-being of the AEMT.

12. The learner will relate body substance isolation procedures to specific patient care.
13. The learner will relate principles of scene safety to patient care scenarios.
14. The learner will discuss stress management.

The learner will discuss medical, legal, ethical and human issues of prehospital care.

15. The learner will define scope of practice and relate it to legal duties and ethical responsibilities.
16. The learner will define types of patient consent.
17. The learner will discuss patient refusal and advance directives.
18. The learner will define and discuss negligence and the reporting of special situations.

The learner will discuss anatomical structures and the function, obtaining vital signs and history taking.

19. The learner will discuss anatomy & function of the musculoskeletal system.
20. The learner will discuss anatomy & function of the respiratory system.
21. The learner will discuss anatomy & function of the circulation system.
22. The learner will discuss anatomy & function of the nervous system.
23. The learner will discuss anatomy & function of the endocrine system.
24. The learner will discuss anatomy & function of the skin.

The learner will demonstrate the correct procedures and techniques for obtaining vital signs.

25. The learner will demonstrate assessment of respiratory rate, regularity & quality.
26. The learner will demonstrate assessment of pulse rate, regularity & quality.
27. The learner will demonstrate assessment of skin moisture, temperature & condition.
28. The learner will demonstrate assessment of pupil size & reactivity to light.
29. The learner will demonstrate assessment of blood pressure.
30. The learner will demonstrate assessment of ability to secure SAMPLE history.

The learner will demonstrate correct procedures and techniques for managing a patient's airway.

31. The learner will discuss anatomy & function of the respiratory system.
32. The learner will discuss the airway anatomy in infants & children and relate it to care.
33. The learner will demonstrate appropriate airway opening techniques.

34. The learner will demonstrate use of airway adjuncts and suction equipment.
35. The learner will differentiate between adjuncts and inadequate breathing.
36. The learner will demonstrate techniques of artificial ventilation and relate them to specific situations.
37. The learner will demonstrate correct operation of oxygen tanks and regulators and relate use to specific situations.
38. The learner will discuss & demonstrate special airway management considerations.
39. The learner will discuss & demonstrate use of the ETC Multi-lumen Airway and Supraglottic Airways.
40. The learner will discuss & demonstrate use of the Endotracheal Tube (ET).
41. The learner will demonstrate Sellick's Maneuver during insertion of an ET tube or Multi-lumen airway.

The learner will perform a complete patient assessment.

42. The learner will perform a scene size up.
43. The learner will perform an initial assessment.
44. The learner will perform a rapid trauma assessment and a focused.
45. The learner will perform a detailed trauma assessment.
46. The learner will perform an ongoing trauma assessment.
47. The learner will demonstrate assessment and recording of vital signs.
48. The learner will provide a description of the scene in the form of a radio report.

The learner will discuss mechanism, signs and symptoms, and management of trauma.

49. The learner will discuss mechanism of injury as it relates to kinetics trauma.
50. The learner will discuss bleeding & shock.
51. The learner will discuss soft tissue injuries.
52. The learner will discuss burn emergencies.
53. The learner will discuss musculoskeletal injuries and demonstrate use of appropriate splint in the management of those injuries.
54. The learner will demonstrate the proper techniques of fully immobilizing a patient to a long spine board from both a supine and a standing position.
55. The learner will discuss injuries of the head.
56. The learner will discuss injuries of the spine.
57. The learner will discuss injuries of the eye, face & neck.
58. The learner will discuss injuries of the chest, abdomen & genitals.
59. The learner will discuss agricultural and industrial emergencies.

The learner will discuss the pathophysiology, signs and symptoms, and management of medical patients.

60. The learner will discuss the pathophysiology of medical patients that are in an acute exacerbated state.
61. The learner will discuss the differences in the isolated organ systems.
62. The learner will be able to establish the signs and symptoms of endocrine cardiovascular, respiratory, neurologic, GI/GU, hematologic, immunologic, infectious, EENT, mental, and toxicologic medical emergencies.
63. The learner will be able to isolate and identify the pathology of certain acute medical emergencies.
64. The learner will discuss the proper application of a 12 lead EKG, with interpretation.
65. The learner will discuss the care and assessment procedures for a pediatric patient.
66. The learner will discuss and demonstrate the care of a neonatal and an obstetric patient.
67. The learner will discuss the need for care of patients with special challenges.

The learner will understand the importance of EMS operations and rescue.

68. The learner will discuss and practice vehicle extrication and rescue operations on an active rescue scene.
69. The learner will discuss and understand the role of EMS on a Hazardous Materials incident.
70. The learner will discuss and understand the role of EMS on the scene of a potential terroristic attack.
71. The learner will discuss and understand the role of EMS on the scene of a natural disaster.

The learner will be familiar with the Kansas curriculum for an AEMT.

72. The learner will discuss the Kansas Enrichment regarding Advanced EMT's and IVs.
73. The learner will discuss and demonstrate the proper insertion of a peripheral vascular access.
74. The learner will discuss and demonstrate the proper insertion of an Intraosseous access and infusion.
75. The learner will discuss and demonstrate how to properly spike an IV.
76. The learner will discuss how to monitor acceptable flow in an IV.
77. The learner will discuss the signs and symptoms indicating the flow of a monitored IV should be stopped.
78. The learner will discuss and demonstrate how to stop the flow of a monitored IV.
79. The learner will discuss and demonstrate IV, IM, and subcutaneous injection for medication administration.
80. The learner will discuss and demonstrate advanced EKG recognition and interpretation.
81. The learner will demonstrate knowledge in the pharmacokinetics/pharmacodynamics of the medications allowed to be administered by Advanced EMT's.

Method(s) of Delivery/Instruction (check all that apply)

- Face-to-face Blended Online

Learning activities will be assigned within and outside the classroom to assist the student to achieve the intended learning outcomes through lecture, Instructor-led class discussion, guest speakers, group activities, lab, drills/skill practice, and others at the discretion of the instructor.

Method of Grading and Evaluation

The student will be graded on learning activities and assessment tasks. Grade determinants may include the following: daily work, quizzes, chapter or unit tests, comprehensive examinations, student projects, student presentations, class participation, and other methods of evaluation employed at the discretion of the instructor.