

NorthWest Arkansas Community College
Standard Course Outline
Division of Health

Course Number and Title

EMTP 1206, Emergency Cardiac Care

Course Description

Students will be taught advanced cardiac care including twelve lead ECG recognition, Advanced Cardiac Life Support, Emergency Cardiac Drug identification and administration, and other cardiac care techniques. Students will be evaluated on their ability to perform didactically as well as in the lab. Students will learn ACLS (Advanced Cardiac Life Support) algorithms utilizing American Heart Association Standards and National Registry Testing. Students must demonstrate competent skills in class.

Credit Hours/Contact Hours

This course is 6 credit hours. Contact hours are approximately 120 hours. Study time for this course will exceed 360 hours on average.

Target Audience and Transferability

This course is for paramedic students only. Students must be actively enrolled in the paramedic program in order to be eligible to take this course. This course does not typically transfer.

Course Objectives and Student Outcomes

Upon completion of this course the paramedic student will be able to:

1. Manage 10 core Cases through small-group case-based teaching.
2. Learn and practice key skills in BLS and ACLS
3. Manage first ten minutes of sudden, witnessed ventricular fibrillation.
4. Know and perform the primary ABCD survey
5. Know and perform a secondary ABCD survey
6. Know and perform the ACLS algorithms as stated in the 10 core cases.
7. Know and apply the "Periarrest" Algorithms
8. Know and apply how to run the code – directing others during a resuscitation attempt
9. Airway maintenance: Provide supplemental oxygen, open airway, maintain the open airway, recognize airway obstruction, ventilate patient, provide advanced ventilation, provide definitive airway control, provide primary and secondary confirmation of tracheal tube placement.
10. Provide transcutaneous pacing operate and AED, and a conventional monitor/defibrillator to safely and effectively deliver shocks to Ventricular fibrillation and other rhythms.
11. Effectively perform synchronized electrical cardioversion for unstable V-Tach with a conventional monitor/defibrillator.
12. Safely and effectively use stand-alone transcutaneous pacemakers and the pacing mode in conventional defibrillators to pace a patient.
13. Identify the characteristics of normal sinus rhythm.

14. When shown and ECG tracing, identify the rhythm, site of origin, possible causes, clinical significance, and prehospital management that is indicated.
15. Describe prehospital assessment and management of patients with selected cardiovascular disorders based on knowledge of the Pathophysiology of the illness.
16. List indications, contraindications, and prehospital considerations when using selected cardiac interventions, including basic life support, monitor-defibrillators, defibrillation, implantable cardio-defibrillators, synchronized cardioversion, and transcutaneous cardiac pacing.
17. List indication, contraindications, dose, and mechanism of action for pharmacological agents used in the management of cardiovascular disorders.
18. Identify appropriate actions that should be taken in the pre-hospital setting to terminate resuscitation.
19. Identify risk factors and prevention strategies associated with cardiovascular disease.
20. Describe the normal physiology of the heart
21. Discuss electrophysiology as it relates to the normal electrical and mechanical events in the cardiac cycle
22. Outline the activity of each component of the electrical conduction system of the heart.
23. Outline the appropriate assessment of a patient who may be experiencing a cardiovascular disorder.
24. Describe basic monitoring techniques that permit electrocardiogram interpretation.
25. Explain the relationship of the ECG tracing to the heart's electrical activity.
26. Describe, in sequence, the steps in ECG interpretation.
27. Identify the characteristics of normal sinus rhythm.
28. When shown and ECG tracing, identify the rhythm, site of origin, possible causes, clinical significance, and prehospital management that is indicated.
29. Describe prehospital assessment and management of patients with selected cardiovascular disorders based on knowledge of the Pathophysiology of the illness.
30. List indications, contraindications, and prehospital considerations when using selected cardiac interventions, including basic life support, monitor-defibrillators, defibrillation, implantable cardio-defibrillators, synchronized cardioversion, and transcutaneous cardiac pacing.
31. List indication, contraindications, dose, and mechanism of action for pharmacological agents used in the management of cardiovascular disorders.
32. Identify appropriate actions that should be taken in the pre-hospital setting to terminate resuscitation.

Required Text

See current course syllabus or contact instructor

Topics

You will be assigned to participate and expected to pass an ACLS practical exam during this course. Chapters 3, 7, 8, 12, & 28 in the textbook as well as the entire ACLS textbook and CD from American Heart Association will be included in this course.

Required Methods of Instruction

Lecture, Small group practice, manikin demonstration and return demonstration, quiz, video, and field presentations.

Required Assessment

Students will be given quizzes over material covered, as well as written exams on dysrhythmias and algorithms.

Students will be given the ACLS practical exam and an exam on textbook material.