Course Information

Division: Allied Health
Course Number: EMT 220
Title: Advanced Cardiovascular Life Support
Credits: 1
Developed by: Mark Kempton
Lecture/Lab Ratio: 1 Lecture/0 Lab
Transfer Status: Non Transferable

Activity Course: No
CIP Code: 51.0904
Assessment Mode: Pre/Post Test (50 Questions/50 Points)
Semester Taught: Upon Request
GE Category: None
Separate Lab: No
Awareness Course: No
Intensive Writing Course: No

Prerequisites
None

Educational Value
This course is a required course in the Paramedic program. The skills and information taught are also required for employment for many healthcare professionals including physicians and nurses.

Description
This course is designed to provide core information necessary to prepare students for the American Heart Association’s ACLS Provider course. The content is focused on the key concepts of advanced cardiac life support including ethical considerations in cardiac resuscitation. The student should have ECG interpretation skills and a current BCLS CPR card.

Supplies
None
Competencies and Performance Standards

1. **Perform basic and advanced airway management to include endotracheal intubation.**
   
   **Learning objectives**
   
   *What you will learn as you master the competency:*
   
   a. Demonstrate proper techniques for airway management and endotracheal intubation.
   
   *Competence will be demonstrated:*
   
   o On quizzes at the end of the chapter
   
   o By practical exercises.
   
   *Criteria - Performance will be satisfactory when:*
   
   o Learner demonstrates proper techniques for airway management and endotracheal intubation.

2. **Perform ventilation and oxygen therapy techniques.**
   
   **Learning objectives**
   
   *What you will learn as you master the competency:*
   
   a. Demonstrate sufficient ventilations to a non-breathing patient.
   
   b. Demonstrate proper uses of airway delivery devices.
   
   *Competence will be demonstrated:*
   
   o On quizzes at the end of the chapter
   
   o By practical exercises.
   
   *Criteria - Performance will be satisfactory when:*
   
   o Learner demonstrates sufficient ventilations to a non-breathing patient.
   
   o Learner demonstrates proper uses of airway delivery devices.

3. **Manage the following cardiovascular conditions: bradycardia, tachycardia, acute myocardial infarction (MI), hypotension, cardiogenic shock, pulmonary edema, and stroke.**
   
   **Learning objectives**
   
   *What you will learn as you master the competency:*
   
   a. Demonstrate management of the following cardiovascular conditions: bradycardia, tachycardia, acute myocardial infarction (MI), hypotension cardiogenic shock, pulmonary edema, and stroke.
   
   *Competence will be demonstrated:*
   
   o On quizzes at the end of the chapter
   
   o By practical exercises.
   
   *Criteria - Performance will be satisfactory when:*
   
   o Learner demonstrates management of the following cardiovascular conditions: bradycardia, tachycardia, acute myocardial infarction (MI), hypotension, cardiogenic shock, pulmonary edema, and stroke.
4. Manage lethal dysrhythmias including ventricular fibrillation (VF, or V-fib), pulseless ventricular tachycardia (VT, or T-tach), pulseless electrical activity (PEA), asystole/agonal.

Learning objectives
What you will learn as you master the competency:

a. Demonstrate management of lethal dysrhythmias including ventricular fibrillation (VF, or V-fib), pulseless ventricular tachycardia (VT, or T-tach), pulseless electrical activity (PEA), asystole/agonal.

Competence will be demonstrated:

- On quizzes at the end of the chapter
- By practical exercises.

Criteria - Performance will be satisfactory when:

- Learner demonstrates management of lethal dysrhythmias including ventricular fibrillation (VF, or V-fib), pulseless ventricular tachycardia (VT, or T-tach), pulseless electrical activity (PEA), asystole/agonal.

5. Perform various electrical therapies.

Learning objectives
What you will learn as you master the competency:

a. Demonstrate defibrillation, cardioversion, and transcutaneous pacing electrical therapies.

Competence will be demonstrated:

- On quizzes at the end of the chapter
- By practical exercises.

Criteria - Performance will be satisfactory when:

- Learner demonstrates defibrillation, cardioversion, and transcutaneous pacing electrical therapies.

6. Perform intravenous therapy techniques and invasive monitoring.

Learning objectives
What you will learn as you master the competency:

a. Demonstrate intravenous therapy techniques and invasive monitoring.

Competence will be demonstrated:

- On quizzes at the end of the chapter
- By practical exercises.

Criteria - Performance will be satisfactory when:

- Learner demonstrates intravenous therapy techniques and invasive monitoring.

7. Manage various nonlethal dysrhythmias.

Learning objectives
What you will learn as you master the competency:

a. Recognize the following: artifact, bradycardias, tachycardias, atrial dysrhythmias, sinus rhythm, pacemaker rhythms, morphologic electrocardiogram (ECG) changes associated with myocardial ischemia and acute MI.
Competence will be demonstrated:
- On quizzes at the end of the chapter
- By practical exercises.

Criteria - Performance will be satisfactory when:
- Learner demonstrates how to manage various nonlethal dysrhythmias.

8. Become familiar with cardiovascular medications used in resuscitation of patient suffering a cardiovascular crisis.

Learning objectives
What you will learn as you master the competency:
- Identify the proper drug(s) used in any given situation.
- Ensure proper dosage of drug(s) used.
- Recognize when a drug(s) is contraindicated.

Competence will be demonstrated:
- On quizzes at the end of the chapter
- By practical exercises.

Criteria - Performance will be satisfactory when:
- Learner becomes familiar with cardiovascular medications used in resuscitation of patient suffering a cardiovascular crisis.

9. Recognize and be familiar with early management for the patient suffering from various emergency situations.

Learning objectives
What you will learn as you master the competency:
- Demonstrate care for individual(s) suffering from stroke, traumatic cardiac arrest, drowning, hypothermia, cardiac arrest when pregnant, electrocution, lightning strikes, drug overdose, and electrolyte imbalances.

Competence will be demonstrated:
- On quizzes at the end of the chapter
- By practical exercises

Criteria - Performance will be satisfactory when:
- Learner recognizes and is familiar with early management for the patient suffering from various emergency situations.

Types of Instruction
Classroom Presentation
Student participation
Practical Exercises

Grading Information
Grading Rationale
Quizzes may be given at various intervals throughout the course but will not count toward the grade. A pretest will be administered at the beginning of the course which will not count as part of the final grade. A final written examination (post test) will be given.
**Grading Scale**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage of Total Point Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92-100%</td>
</tr>
<tr>
<td>B</td>
<td>84-91.9%</td>
</tr>
<tr>
<td>C</td>
<td>75-83.9%</td>
</tr>
<tr>
<td>D</td>
<td>67-74.9%</td>
</tr>
<tr>
<td>F</td>
<td>0-66.9%</td>
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</tbody>
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**P/F** This course is appropriate for pass/fail grading. Student must obtain an 85% in order to pass this course.