

# EMS 220 Cardiology II

## **COURSE DESCRIPTION:**

Prerequisites: Take All: EMS-122, EMS-130, and EMS-160

Corequisites: None

This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, cardiac pharmacology, and patient care. Upon completion, students should be able to manage the cardiac patient.

Course Hours per Week: Class, 2. Lab Hours per Week, 3. Semester Hours Credit, 3.

## **LEARNING OUTCOMES:**

Upon completing requirements for this course, the student will be able to:

1. Obtain high-quality 3-lead, 12-lead, 15-lead and 18-lead electrocardiograms on live patients or designated manikins.
2. Interpret 12-lead electrocardiograms, including recognition of myocardial infarctions as verified by the designated instructor.
3. Identify the underlying pathophysiology of cardiovascular chief complaints.
4. Provide appropriate prehospital treatment of simulated patients who present with cardiovascular chief complaints.
5. Provide advanced life support cardiopulmonary resuscitation for simulated patients in cardiac arrest, in accordance with AHA ACLS.
6. Administer medications appropriately for simulated patients with cardiovascular chief complaints.
7. Demonstrate safe use of cardiac monitor/defibrillator on a cardiac manikin.

## **OUTLINE OF INSTRUCTION:**

- I. Didactic
  - A. Understanding the ECG
  - B. ACS, CAD, MI
  - C. Determining Axis and Hemiblocks, Bundle Branch Blocks
  - D. MI Imposters: STEMI and LBBB
  - E. Wide Complex Tachycardias
  - F. Chamber Enlargement & Heart Failure
  - G. Electrolyte, Drugs, and Other EKG Changes
  - H. Non-Traumatic Cardiac Tamponade and Hypertensive Emergencies
  - I. Vascular and Valvular Disorders
  - J. Congenital Disorders, Infectious Diseases, Implanted Devices-Pacemaker, Defibrillator, LVAD
  - K. ECMO, Intra-aortic Balloon Counter-Pulsation Therapy
- II. Cardiology II Midterm

III. Cardiology Skills & Scenarios

IV. Cardiology II Mock TSOPS

V. Final Exam Written & TSOP

**REQUIRED TEXTBOOK AND MATERIAL:**

AAOS: Sanders' Paramedic Textbook 5<sup>th</sup> Edition & The Only EKG Book You'll Ever Need