

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: EMS 142

Credits: 1

Course Title: Cardiovascular Care Lab

Course Description: Focuses on skills involved in the assessment and management of cardiac-related emergencies. Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128. Corequisite EMS 141. Laboratory 2 hours per week.

General Course Purpose: The purpose of this course is to teach the skills involved in the assessment and management of cardiac-related emergencies. It develops competency in basic dysrhythmia recognition and overall cardiac patient care.

Course Prerequisites and Co-requisites:

Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128

Corequisite EMS 141

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Demonstrate competency in identifying basic EKG rhythms and associated treatments;
- b. Perform a minimum of two (2) assessments on patient complaining of cardiac-related emergencies in a scenario;
- c. Demonstrate competency in defibrillating a minimum of two (2) patients in an unwitnessed arrest in a lab setting;
- d. Demonstrate competency in defibrillating a minimum of four (4) patients in an unwitnessed arrest in a scenario;
- e. Demonstrate competency in performing transcutaneous pacing on a minimum of two (2) patients in a lab setting;
- f. Demonstrate competency in performing transcutaneous pacing on a minimum of four (4) patients in a scenario;
- g. Demonstrate competency in performing synchronized cardioversion on a minimum of two (2) patients in a lab setting;
- h. Demonstrate competency in performing synchronized cardioversion on a minimum of four (4) patients in a scenario; and
- i. Demonstrate competency in interpreting a 12-lead EKG.

Major Topics to Be Included:

- a. Assessment of the Cardiovascular Patient
 - Primary survey for cardiovascular assessment
 - History and physical/sample format specific to the cardiovascular patient
 - Secondary survey for cardiovascular assessment
 - Differentiating cardiovascular disorders

- b. Identification of Types of Rhythms
 - Sinus rhythms
 - Atrial rhythms
 - Junctional rhythms
 - Tachycardic rhythms
 - Bradycardic rhythms
 - Heart blocks
 - Pulseless rhythms

- c. Management of the patient with an arrhythmia
 - Symptomatic and asymptomatic patients
 - Non-invasive interventions
 - Pharmacological interventions
 - Electrotherapy interventions

- d. Cardiovascular specific pharmacology
 - Gases
 - Sympathomimetic
 - Anticholinergic
 - Antiarrhythmic
 - Beta blocker
 - Vasopressor
 - Calcium channel blocker
 - Purine nucleoside
 - Platelet aggregate inhibitor
 - Alkalinizing agents
 - Cardiac glycoside
 - Narcotic/analgesic
 - Diuretic
 - Nitrate
 - Antihypertensive

Date Created/Updated (Month, Day and Year): September 21, 2018