

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

Course Prefix and Number: EMS 222 **Credits:** 1

Course Title: Paramedic Cardiovascular Care Laboratory

Course Description:

Focuses on skills involved in the assessment and management of cardiac-related emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Develops competency in basic dysrhythmia recognition and overall cardiac patient care. Laboratory 2 hours. Total 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:

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS. Corequisite: EMS 221: Paramedic Cardiovascular Care

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Interpret basic EKG rhythms and associated treatments
- Defibrillate patients in an unwitnessed arrest scenario
- Identify transcutaneous pacing on patients in a scenario
- Synchronize cardioversion on patients in a scenario
- Interpret a 12-lead EKG

Major Topics to Be Included:

- Assessment of the Cardiovascular Patient
- Identification of Types of Rhythms
 - Sinus rhythms
 - Atrial rhythms
 - Junctional rhythms
 - Tachycardic rhythms
 - Bradycardic rhythms
 - Heart blocks
 - Pulseless rhythms
- Management of the patient with an arrhythmia
 - Symptomatic and asymptomatic patients
 - Non-invasive interventions
 - Pharmacological interventions
 - Electrotherapy interventions
- 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

Effective Date/Updated: June 5, 2024