

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: EMS 223 **Credits:** 3

Course Title: Paramedic Patient Care I

Course Description:

Covers the breadth of medical and trauma conditions as outlined by the National Emergency Medical Service Education Standards (NEMSES) for Paramedics. Part I of II.
Lecture 3 hours. Total 3 hours per week.

General Course Purpose:

The purpose of this course is to equip students with the knowledge and skills necessary to deliver effective and compassionate patient care across the lifespan while considering the intricacies of anatomy, physiology, pathophysiology, and pharmacology.

Course Prerequisites and Co-requisites:

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS.

Corequisite: EMS 224: Paramedic Patient Care I Laboratory

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Integrate knowledge of anatomy, physiology, and pathophysiology to the assessment and treatment of patients.
- Integrate knowledge into the assessment and treatment of patients.
- Integrate knowledge of scene safety and situational awareness, scene management, impact of the environment on patient care, tactics to address hazards and violence, recognizing the need for additional or specialized resources, standard precautions, and multiple patient situations to effectively guide emergency management.
- Integrate the investigation of a patient's chief complaint, the mechanism of injury or nature of illness, the associated signs and symptoms, past medical history, and pertinent negatives, interviewing techniques, therapeutic communication and adaptive interviewing techniques, age-related variations in pediatric and geriatric patients to guide patient care.
- Integrate the assessment of vital signs and pain, techniques of physical examination (respiratory system including breath sound quality, cardiovascular system, neurological system, musculoskeletal system, and major anatomical regions), and monitoring devices (pulse oximetry, non-invasive blood pressure, cardiac monitoring- 12 lead acquisition and transmission, blood glucose determination, end tidal CO₂ monitoring and interpretation of waveform capnography, and venous blood sampling) including age-related variations in pediatric and geriatric patients to guide patient care.
- Integrate comprehensive knowledge of the principles of pharmacology into the management of patients.
- Integrate knowledge of essential components in normal perfusion, physiologic response, types of shock, treatment of shock, complications of shock, and circulatory assist

devices, including age-related modifications for pediatric and geriatric patients, to the assessment, care, and transportation of a patient in shock.

- Integrate knowledge of the anatomy of the respiratory system, physiology, and pathophysiology of respiration (including pulmonary ventilation, oxygenation, and respiration- external, internal, and cellular), and supplemental oxygen therapies to the assessment and management of adequate and inadequate breathing situations.
- Integrate knowledge of causes and pathophysiology, trauma scoring, transport and destination issues, transport mode, and age-related assessment and treatment modifications for pediatric and geriatric patients into the management of traumatic injuries.

Major Topics to Be Included:

- Medical
 - Abdominal and gastrointestinal disorders:
 - Disorders of the eyes, ears, nose, and throat:
 - Endocrine Disorders:
 - Genitourinary/Renal Disorders:
 - Hematologic Disorders:
 - Immunologic Disorders:
 - Infectious Disease
 - Neurologic Disorders:
 - Non-Traumatic Musculoskeletal Disorders:
 - Psychiatric or Behavioral Emergencies:
 - Toxicology (and how and when to contact poison control):
 - Gynecologic Disorders:
 - Obstetrics (knowledge of normal pregnancy changes, anatomy and physiology, pathophysiology of pregnancy complications, assessment of the pregnant patient):
 - Newborn/Neonatal Care (knowledge of neonatal circulation):
 - Patients with Special Challenges:
- Trauma
 - Bleeding and fluid resuscitation
 - Abdominal and Genitourinary Trauma
 - Chest Trauma
 - Head, Facial, Neck, and Spine Trauma
 - Nervous System Trauma
 - Orthopedic Trauma
 - Soft Tissue Trauma:
 - Multi-System Trauma and Blast Injuries
 - Environmental Emergencies
 - Special Considerations in Trauma

Effective Date/Updated: June 5, 2024