

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: EMS 183 **Credits:** 2

Course Title: Advanced Medical Care

Course Description:

Examines the assessment and management of medical emergencies as outlined by the National Emergency Medical Service Education Standards (NEMSES) within the Advanced EMT curriculum. Lecture 2 hours. Total 2 hours per week.

General Course Purpose:

The purpose of the course is to introduce the student to the pathophysiology, signs, symptoms, and treatments of medical emergencies.

Course Prerequisites and Co-requisites:

Prerequisite: Current Virginia EMT and CPR certification as approved by the Virginia Office of EMS. Corequisite: [EMS 184](#): Advanced Medical Care Laboratory

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Integrate assessment findings with principles of epidemiology and pathophysiology, including age-related assessment and treatment modifications for pediatric and geriatric patients
- Formulate a field impression and implement a treatment plan for a patient with various medical disorders, including:
 - Abdominal and gastrointestinal disorders:
 - Acute and chronic gastrointestinal hemorrhage
 - Cardiovascular disorders:
 - Acute Coronary Syndrome
 - Hypertensive Emergencies
 - Aortic aneurysm/dissection
 - Thromboembolism
 - Heart Failure
 - Disorders of the eyes, ears, nose, and throat:
 - Epistaxis
 - Post-surgical oropharyngeal hemorrhage
 - Endocrine Disorders:
 - Diabetic emergencies
 - Genitourinary/Renal Disorders:
 - Complications related to renal dialysis
 - Complications related to urinary catheter management
 - Kidney Stones
 - Sexual Assault
 - Hematologic Disorders:
 - Sickle Cell Crisis
 - Clotting Disorders

- Immunologic Disorders:
 - Allergic and anaphylactic reactions
 - Systemic inflammatory response syndrome (SIRS)
- Assessment and management of patients who may have infectious diseases (as well as decontamination procedures for the ambulance and equipment):
 - Sepsis and septic shock
 - HIV
 - Hepatitis B
 - Antibiotic Resistance
 - Current infectious diseases prevalent in the community
 - Vaccine-preventable diseases
- Neurologic Disorders:
 - Altered Level of Consciousness
 - Seizure
 - Stroke
 - Dementia vs Delirium
 - Alzheimer's Disease
 - Headache
 - Brief Resolved Unexplained Event (BRUE)
 - Parkinson's Disease
- Non-Traumatic Musculoskeletal Disorders:
 - Non-traumatic fractures
- Psychiatric or Behavioral Emergencies:
 - Basic principles of mental health
 - Patterns of violence, abuse, and neglect
 - Acute psychosis
 - Suicidal ideations
 - Excited Delirium
 - Anxiety
 - Depression
 - Medical Fear
 - Substance use disorder/addictive behaviors
 - PTSD
- Toxicology:
 - Carbon monoxide poisoning
 - Nerve agent poisoning
 - Opioid toxicity
 - Alcohol intoxication and withdrawal
 - Poisons (inhaled, ingested, injected, absorbed)
- Apply knowledge of growth, development, and aging and assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs, including:
 - Gynecologic Disorders:
 - Vaginal bleeding
 - Vaginal infections
 - Obstetrics (knowledge of normal pregnancy changes, anatomy and physiology, assessment of the pregnant patient):
 - Normal delivery
 - Vaginal bleeding in the pregnant patient and third trimester and antepartum bleeding (placenta previa, placental abruption)
 - Abnormal delivery- nuchal cord, prolapsed cord, breech, shoulder dystocia, prematurity, multiparity
 - Spontaneous abortion/ miscarriage
 - Ectopic pregnancy

- Preeclampsia/eclampsia
- Postpartum complications
- Newborn/Neonatal Care:
 - Newborn stabilization
 - Neonatal resuscitation
- Patients with Special Challenges:
 - Recognizing and reporting abuse and neglect
 - Abuse/ Intimate partner violence
 - Neglect
 - Child/ Dependent adult maltreatment
 - Homelessness
 - Poverty
 - Bariatrics
 - Technology- dependent patients
 - Hospice and the terminally ill
 - Tracheostomy care/ dysfunction
 - Homecare
 - Sensory deficit/ loss
 - Developmental disability
 - Autism spectrum disorder
 - Orthotics/ prosthetics

Major Topics to Be Included:

None

Effective Date/Updated: June 5, 2024