



## Emergency Medical Technician I - Course

New Horizons Regional Education Center - Butler Farm Campus

Instructor – J. Brittingham, EMS Education Coordinator (766-1100 ext.3334)

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Hours of Instruction: Two semesters - (2hours 20 minutes a day for 180 days) & some weekends

Methods of Instruction: Lecture / Discussion with audio-visual aids  
Demonstration and Practice (guided & independent)  
Small group interaction/on-line pre-tests  
Consultation Triad / Simulations/On-line skills drill  
Readings/ outside projects

Medical Direction & Official oversight:

The EMT program is approved and overseen by the Office of Emergency Medical Services. Medical Direction is an essential component of the EMT-B program. This requirement is paramount in assuring the provision of highest quality prehospital medical care. For the school year 2022-23, J. Michael MD, Operational Medical Director has agreed to oversee the program.

Course Objectives:

The EMT training program is based upon the Virginia EMS Education Standards derived from the USDOT National EMS Education Standards. This course is designed to instruct a student to the level of Emergency Medical Technician, who serves as a vital link between healthcare and public safety. The Emergency Medical Technician (EMT) certification program is designed to train an individual to function independently in a medical emergency. This course provides the basic knowledge and skills needed to deliver Basic Life Support (BLS) care and is required to progress to more advanced levels of prehospital patient care. The course requires a minimum number of classroom and skills instructional hours and 10 patient contacts in Clinical/Field rotations. Virginia certification requires successful completion of a standardized cognitive and psychomotor skills examination. This course is designed to train individuals to serve as a vital link in the chain of the healthcare team. This includes all skills necessary to provide emergency medical care as an attendant-in-charge with a basic life support ambulance service or other specialized rescue service. This includes all skills necessary to provide emergency medical care as an attendant-in-charge with a basic life support ambulance service or other specialized rescue service. Upon successfully completion of the training program, the student will be capable of performing the following functions:

- (1) Recognize the nature and seriousness of the patient's condition or extent of injury to assess requirements for emergency care.
- (2) Administer appropriate emergency care to stabilize the patient's condition.
- (3) Lift, move, position and otherwise handle the patient in a way as to minimize discomfort and further injury.

EMTs provide service in an environment requiring special skills and knowledge in areas of communications, transportation and record keeping. They also serve

as liaisons with other public safety services. (Fire, law enforcement, emergency management, FEMA) This course provides an introduction into these concepts.

Units of instruction:

- I. Basic Cardiac Life Support (CPR), Emergency Cardiac Care & First Aid, Standard precautions, Blood borne pathogens, MSDS, OSHA
- II. Preparatory, Scene Safety and Crime scene techniques, workforce safety Anatomy & Physiology, pathophysiology, Medical terminology, Communications & documentation and Normal life span
- III. Airway management for Adult, Child and Infant, oxygen administration, suction, adjuncts, pathophysiology of Respiration
- IV. Patient Assessment – Scene, Primary, history taking, secondary and reassessment
- V. Trauma management, Shock, triage, bleeding, soft tissue injuries, orthopedic injuries, environmental emergencies and vehicle extrication
- VI. Medical management, Pharmacology, & Obstetrics
- VII. Special Populations – Obstetrics, Neonatal, Pediatric, Geriatrics And special needs patients
- VIII. Operations, Mass Casualty, Hazmat and Incident Command Weapons of Mass destruction, Terrorism awareness, the EMS response and mitigation of specialized incidents such as hazardous materials, natural disasters, and other specialized multi-casualty incidents. Hazmat awareness certification (VDFP)
- IX. EVOC – Emergency Vehicle Operations
- X. Professional Development and workforce readiness skills
- XI. Clinical observation and patient assessment

Lesson Objectives:

The individual lesson objectives are based upon the Virginia EMS Education Standards derived from the USDOT National EMS Education Standards. Each student will have a complete list of all objectives in their notebook. They are also listed at the beginning of each chapter in the student Textbook.

Advance Standing

Emergency Medical Services (EMS) Courses for VCCS Institutions – Students receive advanced standing for courses after completing one semester in EMS related programs at Thomas Nelson, Tidewater and Rappahannock Community College for the following courses.

**EMS 100 CPR for Healthcare Providers (1 CR)** Provides instruction in Cardiopulmonary Resuscitation that meets current Emergency Cardiac Care (ECC) guidelines for Cardiopulmonary Resuscitation education for Healthcare Providers. The certification is a prerequisite to the EMS 111 and 120. Learner outcomes:

- demonstrate competency in provision of basic life support ( CPR and FBAO) procedures for adults, children and infants using pocket mask and Bag valve mask devices.
- Utilize an automated external defibrillator for adults, children and infants.
- Recognize and treat foreign body airway obstruction in adults, children and infants. Identify and respond appropriately to special situations requiring modifications in techniques: stoma's, pregnancy, pacemakers

Evaluation / Assessment will be based upon the current standards and guideline performance sheets from the American Heart Association and adopted by the National Registry of Emergency Medical Technicians.

**EMS 111 Emergency Medical Technician (7 credits)** Prerequisite is EMS 100, Co-requisite is EMS 120. This course is to prepare students for certification as a Virginia and / or National Registry EMT. The course focuses on all aspects of pre-hospital basic life support as defined by the Virginia EMS Education Standards derived from the USDOT National EMS Education Standards.

Elaboration of knowledge section for competencies can be found in the TPAM T-570 and found at the following link;

<http://www.vdh.state.va.us/OEMS/Training/TPAM/home.htm>

Complete course guideline/ task and content may be found at the following;

[http://www.vdh.state.va.us/OEMS/Files\\_page/Training/VEMSES-2012.pdf](http://www.vdh.state.va.us/OEMS/Files_page/Training/VEMSES-2012.pdf)

The USDOT National EMS Education Standards may be found at the following;

<http://www.ems.gov/pdf/811077a.pdf>

In addition a competency based task list may be found at the VDOE VERSO site under 8333 EMT-I and 8334 EMT II.

After successful completion of this course, students will be able to:

- Demonstrate an understanding of EMS Systems and basic Workforce Safety and Wellness.
- Display a thorough knowledge of medical, legal and ethical considerations – including privileged communication; living wills, surrogate decision makers, and civil and criminal court cases
- Demonstrate a basic knowledge of human anatomy and physiology state basic medication administration
- Be proficient in airway management, respiration and oxygenation.
- Assess patient needs, including trauma control and management
- Show the ability to work with special patient populations (pregnant, geriatric, pediatric, patients with special challenges). Demonstrate an understanding of basic EMS operations to include hazardous material situations and mass casualty incidents

The student's final grade will be based on the results of written examinations and quizzes as well as students' demonstrations of techniques developed in the course. Specific skills are evaluated based on correctness, speed, and knowledge of principles and guidelines. Guidelines for demonstrated skills are established by the National Registry of Emergency Medical Technicians

**EMS 120 Emergency Medical Technician – Clinical (1 credit)** Prerequisite is EMS 100, Co-requisite is EMS 111. Student will observe in an approved clinical / field setting that provides patients that meet the criteria for topics included in EMS 111. Course content includes:

Student will observe emergency department operations for a period of time sufficient to gain an appreciation for the continuum of care

Students must participate in and document patient contacts in a field experience approved by the Medical Director and Program Director

Students must perform 10 patient assessments. A minimum of 5 must be performed on live patients. These should be performed on an ambulance or in an emergency department or may be completed in a clinic, nursing home, doctor's office, etc. Student learning outcomes:

Provide numbered list (6-10 SLOs) and indicate for each the appropriate Program Learning Outcome, example:

1. The student will apply fundamental knowledge of the EMS system, safety/well-being of the EMT, and medical/legal and ethical issues to the provision of emergency care. (PLO #1)
2. The student will use foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals. (PLO#3)
3. The student will apply fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management. (PLO#4)
4. The student will apply fundamental knowledge of life span development to patient assessment and management. (PLO#5)
5. The student will apply scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, reassessment) to guide emergency management. (PLO#9)
6. The student will apply fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient. (PLO#10)
7. The student will apply a fundamental knowledge of the causes, pathophysiology, and management of shock, respiratory failure or arrest, cardiac failure or arrest, and post-resuscitation management. (PLO#11)
8. The student will demonstrate knowledge of operational roles and responsibilities to ensure patient, public, and personnel safety (PLO#13).

V. EVALUATION/ASSESSMENT for EMS 120 This course is graded pass/fail. Students must successfully complete 10 assessments in order to complete the clinical experience. Please note student can be removed from a clinical site for unprofessional conduct, violation of HIPPA, unsafe acts and performing skills outside their scope of practice.

Virginia Office of Emergency Medical Services Prerequisites for Basic Level Programs  
<http://www.vdh.state.va.us/OEMS/Training/tprog.htm#EMTBasic>

Eligibility to attend an Emergency Medical Responder/First Responder, Emergency Medical Responder/First Responder Bridge, or an Emergency Medical Technician course in Virginia **requires** that you must:

- (1) Be proficient in reading, writing and speaking the English language.
- (2) Be a minimum of 16 years of age at the beginning date of the certification course. If less than 18 years of age, you must provide the course coordinator with a completed parental permission form with the signature of a parent or guardian verifying approval for enrollment in the course.
- (3) Have no physical or mental impairment that would render them unable to perform all cognitive and psychomotor skills required for that level of certification.

- (4) Hold certification in an Office of Emergency Medical Services approved Cardiopulmonary Resuscitation (CPR) course. This certification must also be current at the time of state testing.
- (5) Not have been convicted of or found guilty of any crime, offense or regulatory violation, or participated in any other prohibited conduct identified in state EMS regulations as follows:
- (A) Have never been convicted or found guilty of any crime involving sexual misconduct where lack of affirmative consent by the victim is an element of the crime.
- (B) Have never been convicted of a felony involving the sexual or physical abuse of children, the elderly or the infirm.
- (C) Have never been convicted or found guilty of any crime (including abuse, neglect, theft from, or financial exploration) of a person entrusted to their care or protection in which the victim is a patient or is a resident of a healthcare facility.
- (D) Have never been convicted or found guilty of any crime involving the use, possession, or distribution of illegal drugs except that the person is eligible for affiliation or enrollment five years after the date of final release if no additional crimes of this type have been committed during that time.
- (E) Have never been convicted or found guilty of any other act that is a felony except that the felon is eligible for affiliation or enrollment five years after the date of final release if no additional felonies have been committed during that time.
- (F) Are not currently under any disciplinary or enforcement action from another state EMS office or other recognized state or national healthcare provider licensing or certifying body. Personnel subject to these disciplinary or enforcement actions may be eligible for certification provided there have been no further disciplinary or enforcement actions for five years prior to application for certification in Virginia.
- (G) Have never been subject to a permanent revocation of license or certification by another state EMS office or recognized state or national healthcare provider licensing or certifying body.
- (6) All references to criminal acts or convictions under this section refer to substantially similar laws or regulations of any other state or the United States. Convictions include prior adult convictions, juvenile convictions, and adjudications of delinquency based on an offense that would have been, at the time of conviction, a felony conviction if committed by an adult within or outside Virginia.
- (7) Be clean and neat in appearance.
- (8) May not be under the influence of any drugs or intoxicating substances that impairs your ability to provide patient care or operate a motor vehicle while in class or performing clinically, while on duty or when responding or assisting in the care of a patient.
- (9) Students will be expected to act mature and follow directions. This program has expectations that will place the student in situations that they will be held accountable for their actions.

#### Methods of Evaluation:

The purpose of the evaluation process is to strengthen training efforts. There are three components of the overall grade: Related Instruction (test, quizzes and projects), Competencies (skills), and Employability skills (behaviors that impact on the work environment). Related Instructions minimum passing score is 80%. Students who do not meet the requirements will not be allowed to take the state exam. Attendance is very important and is REQUIRED in some aspects for meeting the requirements for State testing or certifications.

#### Clinical / Field Rotations:

In addition to the required classroom hours of instruction, this course requires that the students have patient interactions in a clinical setting. Students that are 18 years of age or older may participate in a ride-along program with the local Fire Department. Students under the age of 18 will participate in observation experience in the hospital emergency departments and City of Poquoson Fire Department. Clinical /

Field rotation time requirement involves a specific number of patient assessments and contacts. Hours in the clinical area will vary due to the required patient contacts. Performance is evaluated by an assigned clinical mentor. Documentation is evaluated by the course instructor. Appropriate attire and review of expectations can be located in the clinical rotation packet, furnished to the student prior to clinical.

**Clinical Agencies:**

Local Fire and Emergency Medical Services  
Poquoson Fire and Rescue  
Gloucester Fire and Rescue  
Sentara – Hospital  
Carrollton Volunteer Rescue

**Textbook:**

American Academy of Orthopedic Surgeons. Emergency Care and Transportation of the Sick and Injured, current edition, AAOS  
Jones & Bartlett Publishers

American Heart Association, Basic Life Support for HealthCare Providers, current guidelines

**References:**

NHTSA ( ) National Emergency Medical Services Education Standards

NHTSA ( ) Emergency Medical Technician Instructional Guidelines

National Association of EMS educators (NAEMSE) National guidelines  
or Educating EMS Instructor

Nancy L. Caroline, MD Emergency Care in the Streets, 7th edition, Jones & Bartlett

Elling, Kirsten Emergency Medical Technician Exam Review, Delmar

Krebs When Violence Erupts: A survival Guide for Emergency Responders, Jones & Bartlett

AAOS ( ) EMS Scenarios: Case studies for prehospital Providers, Jones & Bartlett

Hawthorne ( ) Patient Assessment Practice Scenarios, AAOS, Jones & Bartlett

American Geriatrics Society, National Association of State EMS Officials ( ), Geriatric Education for Emergency Medical Services (GEMS), Jones & Bartlett

National Ski Patrol and the American Academy of Orthopedic Surgeons ( ) Outdoor Emergency Care comprehensive prehospital guide for nonurban settings, 4th edition, Jones and Bartlett

American Heart Association, ( ) Airway Management student guide

American Safety and Health Institute, Basic First Aid for community and workplace

American Safety and Health Institute, Bloodborne Pathogens student handbook