

## **NORTH CAROLINA OFFICE OF EMERGENCY MEDICAL SERVICES**

DIVISION OF HEALTH SERVICE REGULATION • DEPARTMENT OF HEALTH AND HUMAN SERVICES

### **AEMT (Advanced EMT) EDUCATION PROGRAM REQUIREMENTS: Effective January 1, 2021**

1. The AEMT (Advanced EMT) educational program must be conducted by an approved Educational Institution as defined in the rules of the NC Medical Care Commission.
2. The lead instructor for the AEMT (Advanced EMT) educational program must be a NC credentialed Level II EMS Instructor at the AEMT (Advanced EMT) level as defined in the rules of the NC Medical Care Commission.
3. The curriculum for the AEMT (Advanced EMT) educational program shall at a minimum, meet the most current edition of the National EMS Education Standards for Advanced EMT Education. The EMS Education Standards may be downloaded or viewed at <http://ems.gov/EducationStandards.htm>. The EMS Education Standards for AEMT (Advanced EMT) Education must be adopted and approved by the North Carolina Office of Emergency Medical Services.

While the EMS Education Standards for AEMT (Advanced EMT) Education is a National document, there are some components that may not be included in this document. For clarity, all skills and medications listed on the most current edition of the North Carolina Medical Board approved Medications and Skills for AEMT (Advanced EMT)/EMT-Intermediate are to be covered during the course of the program. This document can be downloaded or viewed free of charge. To view this document visit:

<http://www.ncems.org/nccepsstandards/NCMBApprovedMedSkillsforEMSPersonnel.pdf>.

4. The evaluation check sheets for verification of student independent-skill mastery shall meet the minimum criteria of those developed and maintained by the National Registry of Emergency Medical Technicians specific to the independent skills learned during each specific educational module. As long as the criteria meets the above requirements, then an Institution may choose to develop or utilize pre-developed evaluation check sheets.
5. The educational institution must maintain all student records that document:
  - Prerequisite of a high school diploma or high school equivalency.
  - Reading comprehension and English language skills on the post-secondary level.
  - Compliance with the mathematical skills on the post-secondary level.
  - Possession of a valid and active North Carolina EMT Credential, NREMT or other states EMS Credential.
  - Any learning disabilities that may qualify the student for special consideration by the Office of EMS in the written credentialing examination.
  - Student attendance in the classroom, clinical, and field internship components of the educational program.
  - Successful completion of all classroom components of the program, including written examination scores, independent-skills evaluation check sheets and scope-of-practice evaluation check sheets.
  - Skills competency in the clinical and field internship educational components.

- Recommendation by the medical advisor/director and the lead instructor for participation in clinical and field internship.
  - Recommendation by the medical advisor/director and the lead instructor for successful completion of the educational program. This will verify that the student has satisfactorily met all competencies to ensure the health and safety of the citizens that the student will be caring for once affiliated.
6. The educational institution must have access to clinical education and field internship sites consistent with the scope of practice level of the AEMT (Advanced EMT) student for a sufficient number of contact hours to ensure competency on the skills required for successful program completion. The approved educational institution shall have written agreements with these sites.

### **AEMT (Advanced EMT) STUDENT PRE-REQUISITES**

1. Must be 18 years of age to enroll into the course.
2. Possession of a valid and active North Carolina EMT Credential, NREMT or other states EMS Credential.
3. High school diploma or high school equivalency. If an Institution is presented with documents that the Institutions Advisors, Counselors or Registrar will accept as an equivalent (Home School, International schooling, etc.) then there must be some form of documentation placed into the students file acknowledging acceptance of same.
4. Successful completion of college-level English or successful completion, within the previous 12 months, of an entrance exam placing the individual into college-level English without corequisite courses.
5. Successful completion of college-level Math or successful completion, within the previous 12 months, of an entrance exam placing the individual into college-level Math without corequisite courses.

### **DIDACTIC COMPONENT**

#### **COMPOSITION**

Composition of the didactic component will meet the most current edition of the National EMS Education Standards for Advanced Emergency Medical Technician (AEMT), which can be referenced at <http://ems.gov/EducationStandards.htm>.

Inclusion of the following didactic components from the Paramedic National EMS Education Standards is required. This information may be cross referenced in the most current edition of the North Carolina Medical Board approved Medications and Skills for EMT-Intermediates at:

<http://www.ncems.org/ncepestandards/NCMBApprovedMedSkillsforEMSPersonnel.pdf>.

Paramedic Level Education to be implemented in the AEMT Level will consist of the following:

#### ***Airway and Breathing***

- Airways not intended for insertion into the esophagus or trachea
- Esophageal-tracheal
- Multi-lumen airway

- Tracheal-bronchial suctioning of an already intubated patient
- Endo-tracheal intubation
- Color metric and waveform capnography

#### ***Assessment***

- A thorough understanding of waveform capnography, to include: analysis, interpretation and troubleshooting

#### ***Cardiovascular***

- Application of a standard 3-4 lead Electrocardiograph (ECG/EKG)
- Application and transmittal of a 12-lead ECG
- Ability to understand the basics of ECG's
- Atrial and Ventricular Rates
- Progression and representation of the ECG
  - P- Wave
  - Various QRS Complexes
  - T-Wave
- Ability to identify
  - Normal Sinus Rhythm
  - Sinus Bradycardia
  - Sinus Tachycardia
  - Asystole
  - Ventricular Fibrillation
  - Ventricular Tachycardia

#### ***Skill evaluations for Paramedic Standards in the AEMT (Advanced EMT) Program***

- The AEMT student shall safely and effectively perform all applicable psychomotor skills for the Paramedic Standards satisfactorily.
- Any AEMT student that fails to satisfactorily complete a required skill shall be remediated until the student has a complete understanding and is capable of performing the skill satisfactorily.

### **CLINICAL EDUCATION COMPONENT**

#### **Clinical Prerequisites:**

1. Successful completion of all clinical skills to be performed by the student.
2. Recommendation of the educational medical director and program lead instructor.

#### **Clinical Requirements:**

1. The length of the clinical education component of the *AEMT (Advanced EMT)* program has a required minimum of 48 hours, which includes time for student remediation if needed to meet the required minimum skills. The Institution will be responsible for ensuring the student's competency is equivalent to that of an entry level AEMT (Advanced EMT). This component should be based on the time required to verify competency in each of the skills required for successful program completion.
2. Clinical education must be conducted under the direct supervision of ***approved preceptors*** (Recommend not more than 4 preceptors be assigned to any one student, as research has shown the

closer the ratio is 1:1 the better the student performed) in accordance with the Educational Institutions established preceptor guidelines.

3. A minimum of 24 hours shall be performed in a hospital emergency department.
  4. Other clinical areas may include:
    - ☐ Intensive Care Units
    - ☐ Operating Room / Recovery
    - ☐ Intravenous Team
    - ☐ Specialty Care Transport Units /Pediatric Unit
    - ☐ Labor / Delivery Unit
    - ☐ Psychiatric Unit or Crisis Center
    - ☐ Skilled Nursing Facilities
    - ☐ County Health Department/ Home Health Care
    - ☐ Physician's Office/Immediate or Urgent Care
    - ☐ Any other medical facility (Non-Traditional Practice Setting) deemed appropriate by the Educational Medical Advisor
- Because of the unpredictable nature of emergency medicine, the hospital environment offers two advantages in the AEMT education: volume and specificity. In the hospital setting, the AEMT (Advanced EMT) student can see many more patients than is possible in the field.
  - This is a very important component in building up a "library" of patient care experiences to draw upon in clinical decision-making.
  - The use of multiple departments within the hospital enables the student to see an adequate distribution of patient situations. In addition to emergency departments, which most closely approximate the types of patients that AEMT the (Advanced EMT) should see, clinical education should take advantage of critical care units, OB/GYN, operating rooms/anesthesia, recovery, pediatrics, psychiatric, etc. This will help assure a variety of patient presentations and complaints. These also provide a more holistic view of health care and an appreciation for the care that their patients will undergo throughout their recovery. This places emergency care within context.
  - AEMT (Advanced EMT) programs throughout the country have created clinical learning experiences in many environments. There is application to emergency medical care in almost any patient care setting.
  - When a particular location lacks access to some patient populations, educational programs have created innovative solutions. Programs are encouraged to be creative and seek out clinical learning experiences in many settings. Examples include: morgues, hospices, nursing homes, primary care settings, doctor's offices, clinics, laboratories, pharmacies, day care centers, well baby clinics, and community and public health centers.

### **FIELD EDUCATION COMPONENT**

#### **Field Internship Prerequisites:**

1. Successful completion of all clinical skills to be performed by the student.

2. Recommendation of the educational medical director and program lead instructor.

### **Field Internship Requirements:**

1. This component should be based on the time required to verify competency in each of the skills required for successful program completion. If the student fails to show competency in any aspect, then that student must be offered remediation and will be required to perform additional time to ensure that competency has been met.
2. The length of the field education component for the *AEMT (Advanced EMT)* program will require a minimum of 48 hours, which includes time for student remediation. The student must complete the 48 minimum hours required as the third person (Student Role) of an ambulance crew. The student is required to meet the minimum skills and the Institution will be responsible for ensuring the student's competency is equivalent to that of an entry level AEMT (Advanced EMT).
3. The acceptance of any field time or skills, when not assigned as the third person (*Student Role*) of an ambulance crew is strictly prohibited. In the event that an Institution or Student allows such time or skills to be credited, then the Student will negate all field time and skills acquired for the field education component.
4. Field education must be conducted under the direct supervision of *approved preceptors* (Recommend not more than 4 preceptors be assigned to any one student, as research has shown the closer the ratio is 1:1, the better the student performed) in accordance with the Educational Institutions established preceptor guidelines.
5. Field internship must be performed with an EMS provider *at or above the AEMT (Advanced EMT) level*.
  - It is unreasonable to expect students to derive benefit from being placed into a field environment and performing. Field clinical represents the phase of instruction where the student learns how to apply cognitive knowledge and the skills developed in skills laboratory and hospital clinical to the field environment. In most cases, field clinical should be held concurrently with didactic and hospital clinical instruction.
  - Field instruction, as well as hospital clinical, should follow a logical progression. In general, students should progress from observer to participant to team leader. The amount of time that a student will have to spend in each phase will be variable and depend on many individual factors. One of the largest factors will be the amount and quality of previous emergency care experience.
  - With the trend toward less and less EMT experience prior to AEMT (Advanced EMT) education, program directors must adjust the amount of field experience to the experience of the students.
  - Students should have access to patients who present common problems encourage in the delivery of advanced emergency distributed by age and sex. Supervision should be provided by instructors or preceptors appointed by the program. The clinical site should

be periodically evaluated with respect to its continued appropriateness and efficacy in meeting the expectations of the programs. Clinical affiliates should be accredited by the Joint Commission on Accreditation of Healthcare Organizations.

- The final ability to integrate all of the didactic, psychomotor skills, and clinical instruction into the ability to serve as an entry level AEMT (Advanced EMT) is conducted during the field internship phase of the program. The field internship is not an instructional, but rather an evaluative, phase of the program. The field internship should occur toward the end of the program, with enough coming after the completion of all other instruction to assure that the student is able to serve as an entry level AEMT (Advanced EMT). During the field internship the student should be under the close supervision of an evaluator.
- Field internship must occur within an emergency medical service which demonstrates medical accountability. Medical accountability exists when there is good evidence that the EMS providers are not operating as an independent practitioner, and when field personnel are under direct medical control of online physicians or in a system utilizing standing orders where timely medical audit and review provide quality improvement.

### **SUCCESSFUL SKILLS COMPLETION**

The student must demonstrate competence on each of the following skills during the clinical education AND field internship educational components while in direct contact with patients. Clinical and field internship preceptors shall document the student's performance on all of the skills required in the AEMT program curriculum. The Level II Instructor shall review all completed clinical and field internship student evaluations to determine when the student has demonstrated competency on each of the skills. The educational program medical advisor and educational institution may also give credit for skills competency obtained from previous experience or other educational programs. The waiver of any skills for students in an AEMT educational program should be reflected in the course outline materials on file at the educational institution. The program medical advisor and Level II lead instructor may determine that the recommended minimum skills requirement for successful program completion is unattainable within the time allotted for clinical and field internship education. If this situation should occur, a joint decision of the program medical advisor and Level II lead instructor may reduce the required numbers of skills or increase the number of clinical and/or field internship hours. If the number of skills is reduced, the Level II instructor should develop an alternative method of ensuring competency in the skills necessary for successful program completion. All patient assessments must be performed on patients in the clinical education and field internship components of the course.

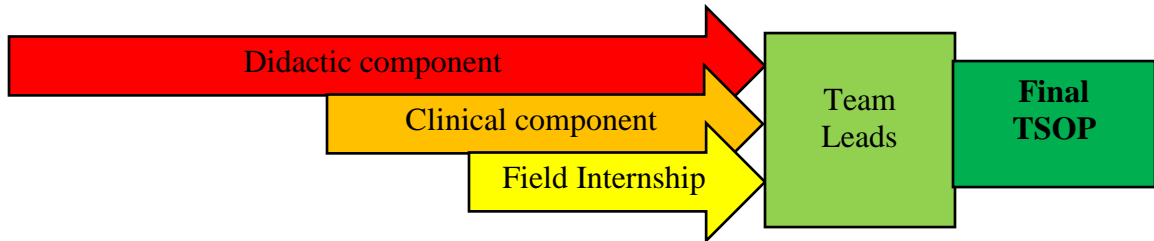
### **CLINICAL AND FIELD EXPERIENCE SUMMARY**

Advanced Educational Institutions, shall establish their minimum required numbers and competency determinations for all skill sets (Patient assessments, Team Leads, IV access, etc...). The minimum required numbers and competency determinations for all skill sets will be set by the EMS Advisory Committee and Medical Advisor. Educational Institutions will be responsible for submitting an addendum or updated Educational Plan to the appropriate Regional OEMS Office and Educational Specialist.

### **SCOPE OF PRACTICE PERFORMANCE EVALUATION COMPONENT**

The scope of practice performance evaluation is scenario-based and must be consistent with the requirements detailed in the National EMS Scope of Practice Model.

- The “Final” Technical Scope of Practice Evaluation is to be performed once the student has successfully completed “ALL” educational components to include didactic, clinical and field experience.



- All skills and medications listed on the most current edition of the North Carolina Medical Board approved Medications and Skills for EMS Personnel are to be covered and evaluated during the course of the program with high acuity skills included within the scope of practice performance evaluation. To download or view this document visit:  
<http://www.ncems.org/nccepsstandards/NCMBApprovedMedSkillsforEMSPersonnel.pdf>

### **AEMT EDUCATIONAL PROGRAM SUMMARY**

The following represents a summary of the required components and minimum time requirements for the AEMT program:

1. Didactic, skills practice/evaluation, written exams, scope of practice (Last) 160 hours
2. The required minimum clinical hours will be 48 hours with a minimum of 24 hours in an Emergency Room Setting.
  - a. This minimum is established to ensure that the student has satisfactorily met all competencies required for completion of the educational program.
  - b. If a student is deemed as “Competent” prior to the completion of the minimum hours, then the educational medical advisor/director, program lead instructor and program director are responsible for ensuring that the student can satisfactorily enter the workforce as an entry level EMS professional at or above the level of education completed.
  - c. If a student is deemed as “Needs Improvement” upon the completion of the minimum hours, then the educational medical advisor/director, program lead instructor and program director are responsible for ensuring that the student is provided an outline for remediation. The remediation outline should include additional clinical hours to ensure the student can satisfactorily meet all competencies required for successful completion of the educational program.
  - d. Documentation must be maintained in the students file to show that the educational medical advisor/director, program lead instructor and program director were in complete agreement with the final determination.
3. The required minimum hours for field internship will be 48 hours as the third member (Student Role) of an Ambulance crew.

- a. This minimum is established to ensure that the student has satisfactorily met all competencies required for completion of the educational program.
- b. A minimum of 48 must be as a third member (Student Role) of the primary ambulance crew.
- c. If a student is deemed as “Competent” prior to the completion of the minimum hours, then the educational medical advisor/director, program lead instructor and program director are responsible for ensuring that the student can satisfactorily enter the workforce as an entry level EMS professional at or above the level of education completed.
- d. If a student is deemed as “Needs Improvement” upon the completion of the minimum hours, then the educational medical advisor/director, program lead instructor and program director are responsible for ensuring that the student is provided an outline for remediation. The remediation outline should include additional clinical hours to ensure the student can satisfactorily meet all competencies required for successful completion of the educational program.
- e. Documentation must be maintained in the students file to show that the educational medical advisor/director, program lead instructor and program director were in complete agreement with the final determination.

**AEMT Minimum Program Length= 256 hours**