

## **Oklahoma State-Approved AEMT Student Minimum Competencies**

**May 2024**

Beginning July 1, 2024, the National Registry will require verification by AEMT Certified Training Program Directors that student minimum competency has been verified to be in compliance with state EMS office requirements and in a manner consistent with the Advanced Emergency Medical Technician Student Minimum Competency Model Guideline issued by the National Association of State EMS Officials (NASEMSO). NASEMSO advises against considering the model guideline as a ceiling, but rather a recommended consistent minimum standard.

This document lays out the Oklahoma EMS state office approved AEMT student minimum competencies. The National Registry recommends state EMS offices consider appropriate ways to address variations necessary to best meet local implementation challenges while being mindful of the goal for substantial consistency with the NASEMSO recommendations. This document is reflective of that recommendation. It also reflects input and recommendations from the Education and Training subcommittee of the Oklahoma Trauma and Emergency Response Advisory Council.

As is the case with the NASEMSO recommended model guideline, the Oklahoma-approved Student Minimum Competencies (SMCs) focus on the “what” rather than the “how.” Training programs certified in the state of Oklahoma are responsible for determining how to implement the SMCs. AEMT certified training programs are routinely inspected. Routine inspections will include record reviews to check for compliance with student minimum competency requirements.

To demonstrate compliance with the state-approved SMCs during inspection, a tracking system is necessary for certified training programs to have documented evidence of compliance. The tracking system for the demonstration of skills and experiences during training should include each of the following four (4) dimensions for the educational activity which assesses skills and abilities:

- Description of the assessed skill or ability
- Age or developmental category of the patient
- Pathophysiology or type of patient presentation
- Environment of the evaluation: laboratory setting, simulated patient encounter, or live patient encounter

Each of the following sections of the SMC document contain relevant, narrative information along with a table which captures SMCs at a glance. To help achieve the goal of substantial consistency, narrative descriptions are similar to the NASEMSO model guideline while taking into account state-specific factors and needs.

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## Ages

Patients of different ages present with distinct anatomies, physiologies, and disease processes. Students must have exposure to patients of various ages to build competence and confidence. These variables are reflected in the distinctive age considerations for assessment and management. It is the responsibility of the certified training program to assess each student's ability to provide safe and effective care for a variety of ages of patients and maintain documentation accordingly.

Alternative areas to provide exposure, such as primary care healthcare settings, childcare environments, and long-term care, can provide important context that is valuable while learning to differentiate abnormal presentations from normal ones. Exposure to different age groups may present challenges for certified AEMT training programs. Alternative methods, such as telehealth and simulation, may effectively augment experiences with live patients but may not be able to fully replicate the educational value of direct patient experience. Exposure to live patients must be a strong goal.

The pediatric community recommended consideration of the developmental differences among pediatric patients which can present difficulties. Recognizing challenges in accessibility to a wide variety of ages for certified AEMT training programs, recommendations for subgroups of pediatric patients based on development have not been provided beyond the two categories captured in the table below. If accessible, the certified AEMT training program may want to consider tracking exposure in the following developmental categories:

- Neonate (birth to 30 days)
- Infant (1 month to 12 months)
- Toddler (1 to 2 years)
- Preschool (3 to 5 years)
- School aged/Pre-adolescent (6 to 12 years)
- Adolescent (13 to 18 years)

Each patient encounter or simulation should only have one age designation. If a simulation involves multiple patients, the competency should be assessed for each patient.

**TABLE 1: Ages**

STUDENT MINIMUM COMPTENCY (SMC)	EXPOSURE IN LABORATORY, HOSPITAL/CLINICAL AND FIELD EXPERIENCE, AND CAPSTONE FIELD INTERNSHIP
Pediatric patients with pathologies or complaints (birth to 18 years of age)	Minimum of 5 exposures under the age of 10 Minimum of 5 exposures ages 10 to 17
Adult (19 to 65 years of age)	Minimum of 20 exposures
Geriatric (older than 65 years of age)	Minimum of 20 exposures
Total simulated and live patient exposures during the laboratory, clinical/hospital, and field phase of the AEMT course	50 minimum exposures

## Pathology/Complaint (Conditions)

Competent assessment and management of an emergency requires distinct approaches depending on the patient condition. Certified training programs must assess each student's ability to provide safe and effective care for a variety of patient conditions. Student evaluation mixes formative and summative evaluations to verify competency. Each patient encounter or simulation could include more than one condition or impression per patient.

Prior to assessing student performance of management of emergency conditions, the student should have received education and have clear expectations for performance on the following:

- General patient assessment
- General history taking
- Family and patient communications
- Crew Resource Management (CRM) and team performance expectations
- Assessment and actions to ensure provider safety (including standard and personal protective equipment (PPE))

This section addresses the evaluation of student performance integrating a mixture of declarative and procedural knowledge, psychomotor skills, and related abilities. Topics such as “patient assessment” are sometimes described as “skills” but are combinations of declarative and procedural knowledge with psychomotor elements. Progression of learning is essential. Certified AEMT training programs should progress from formative exposures that provide the opportunity to learn and build competency with an emphasis on feedback that supports learning to summative verifications that focus on the student's ability to demonstrate effective performance with little to no coaching or guidance. The distinction between formative exposure and summative verification may not be clear—professional judgment of certified AEMT trainers is essential to design and implement a curriculum that progresses from introduction to learning and concludes with the verification of competency.

A single performance is rarely, if ever, a valid assessment of competency. Certified AEMT training programs should ideally verify competency as reliable performance in multiple situations over time as a more robust and accurate assessment of competency in comparison to a single skills examination. The need for verification in multiple situations over time must be balanced by concerns for opportunities for performance and time constraints of the certified training program.

- Formative exposure in laboratory, hospital/clinical, or field experiences can be used to assist in the development of curriculum as well as clinical and simulation sequences. Peer evaluation may augment, but should not replace evaluation by a supervisor, preceptor, examiner, or instructor. Actual sequencing and the selected number of exposures are a matter of professional judgment of the certified training program provided minimum thresholds are met.
- Competency Evaluation in Hospital/Clinical, Field Experience, or Capstone Field Internship may be utilized to evaluate student minimum competency. Simulations have proven to be valid and reliable evaluations and may augment supervised patient encounters in field and clinical settings. Simulation may be needed to satisfy some of the pathologies and complaints. Certified training programs should utilize live exposures to evaluate competency whenever feasible.

Certified training programs must document students have met the standards for program completion for each patient's age, condition, and intervention. Oklahoma approved SMCs allow for simulation and the use of a high-fidelity mannequin

where live exposures are not possible. The Oklahoma State Department of Health strongly recommends exhausting all avenues possible to identify opportunities for live exposure.

**TABLE 2: Pathology/Complaint (Conditions)**

<b>STUDENT MINIMUM COMPETENCY BY PATHOLOGY OR COMPLAINT</b>	<b>EXPOSURE IN LABORATORY, CLINICAL/HOSPITAL, OR FIELD EXPERIENCE/CAPSTONE FIELD INTERNSHIP*</b>
Trauma	A minimum of 5 live exposures; high-fidelity mannequin exposures may be substituted for live exposures if necessary
Psychiatric / Behavioral	A minimum of 5 live exposures; high-fidelity mannequin exposures may be substituted for live exposures if necessary
Uncomplicated and Complicated Obstetric delivery**	3 exposures; Simulation permissible, based on competency determined by the program director and medical director
Distressed neonate	3 exposures; Simulation permissible, based on competency, determined by the program director and medical director
Cardiac pathologies or complaints (for example, acute coronary syndrome, cardiac chest pain)	A minimum of 5 live exposures; high-fidelity mannequin exposures may be substituted for live exposures if necessary
Cardiac Arrest	A minimum of 5 live exposures; Simulation permissible, based on competency, determined by the program director and medical director
Medical neurological pathologies or complaints (for example, transient ischemic attack, stroke, syncope, or altered mental status presentation)	A minimum of 5 live exposures; high-fidelity mannequin exposures may be substituted for live exposures if necessary
Respiratory pathologies or complaints (for example, respiratory distress, respiratory failure, respiratory arrest, acute asthma episode, lower respiratory infection)	A minimum of 5 live exposures; high-fidelity mannequin exposures may be substituted for live exposures if necessary
Other medical conditions or complaints***	A minimum of 5 exposures;
Sum of the pathologies/complaints	Minimum of 50 total exposures

- \* Conducts a patient assessment and develops a management plan for evaluation on each patient with minimal assistance.
- \*\* Should include normal and complicated obstetric deliveries such as breech, prolapsed cord, shoulder dystocia, precipitous delivery, multiple births, meconium staining, premature birth, abnormal presentation, postpartum hemorrhage.
- \*\*\* For example, gastrointestinal, genitourinary, gynecologic, reproductive pathologies, or abdominal pain complaints, infectious disease, endocrine disorders, or complaints, (hypoglycemia, DKA, HHNS, thyrotoxic crisis, myxedema, Addison, Cushing, overdose or substance abuse, toxicology, hematologic disorders, non-traumatic musculoskeletal disorders, diseased of the eyes, ears nose, and throat).

## Skills

Skills listed in the National EMS Scope of Practice Model must be assessed. The certified training program must assess student ability to provide safe and effective performance of skills. Ultimately, the student should be able to perform each listed skill successfully and consistently for a variety of conditions and patient ages.

The motor skills listed below are based upon the NASEMSO SMC model guideline list which was derived from the NREMT 2019 ALS Practice Analysis and 2019 National EMS Scope of Practice Model, Section VI., Interpretive Guidelines. Additional consideration was given to feedback provided by the Education and Training subcommittee of the Oklahoma Trauma and Emergency Response Advisory Council. Patient encounters or simulations may contain several skills, but each skill is assessed individually.

The table below includes simple (isolated) and discrete motor skills only. It does not include complex integrated judgement or performance, or combined skills used to run an entire EMS event. Motor skills are tracked separately. Evaluation of pure motor skills requires a log of skills performed over time in various conditions rather than a single point-in-time evaluation. A summative examination does not reflect the verification expectations for student minimum competencies.

Certified AEMT training programs should ideally verify competency through reliable performance in multiple situations over time as a valid assessment of competency. The need for verification in multiple situations over time should be balanced with consideration for limitations of opportunities for performance and time constraints of the certified training program.

Formative skill instruction experiences should be conducted in the certified AEMT training program so that students may learn motor skills prior to clinical or field experiences. Development of curriculum, hospital/clinical, and simulation sequences should support the progression of learning from introduction to simulation as a learning experience all the way through the point of competency verification. Peer evaluation may augment but should not replace evaluation or verification by a supervisor, preceptor, examiner, or instructor. Actual sequencing and minimum numbers are a matter of professional judgment at the program level by the Program Director and Medical Director in alignment with this student minimum competency guidance document.

Simulation is permitted only when a skill is unobtainable through live exposure. The Oklahoma state EMS office acknowledges the limited availability of live exposure of skill performance may dictate a competency be verified in a relatively small number of live patient encounters and/or through simulation.

Consistent successful performance is a critical part of competency. Minimum numbers of successful attempts by the student evaluator are captured in the table below. Sufficient documentation of skill acquisition and competency over time should be tracked by certified training programs. This documentation should be made available to the Department upon request during routine inspections, and where applicable, complaint investigations.

It is recommended to document both the successful and unsuccessful performances of each student so the certified training program may have a complete picture of each student and any potential need for additional exposure and practice. Peer evaluation may augment, but should not replace evaluation by a supervisor, preceptor, examiner, or instructor.

In setting a minimum acceptable standard, Program Directors should consult with Medical Directors and SMEs to develop: (1) a minimum number of total skill performances that would constitute sufficient exposure for a valid assessment of consistent performance, (2) a minimum acceptable success rate after the skill has been acquired in laboratory and initial practice, and (3) the means of identifying non-standard patient presentations that are unreasonably difficult for an entry-level practitioner.

Chest compressions, while an EMT skill, have been shown to degrade quickly without repeated practice and meaningful assessment. Rapid degradation of chest compression skills over time has been noted by multiple studies. The 2020 American Heart Association Guidelines included a Class 1 recommendation to “implement booster sessions when utilizing a massed learning approach to resuscitation training.” The 2020 American Heart Association Guidelines also included a Class 2a recommendation to “use a spaced learning approach for resuscitation training.” Based on the clear evidence demonstrating the need for frequent reassessment of chest compressions, a key foundational component of successful resuscitations, additional confirmation of this EMT level skill, is strongly recommended for certified AEMT training programs.

The use of robust hands-on practice, requiring medical math calculations and medication administration safety checklists, should be employed throughout the curriculum to help prevent medication dosing errors and other issues that may affect medication safety. Course planning and implementation should include these tasks and tools in the laboratory, hospital/clinical, and field phases of the AEMT course.

**TABLE 3: Skills**

<b>RECOMMENDED MOTOR SKILLS ASSESSED AND SUCCESS*</b>	<b>MINIMUM SUCCESSFUL MOTOR SKILLS ASSESSED ON PATIENTS DURING THE LABORATORY, CLINICAL, OR CAPSTONE FIELD INTERSHIP**</b>
Venous blood sampling	4
Established intravenous access	20
Administering IV bolus medication	10
Administering IM Injection	2
Intranasal medication	2
Establishing Intraosseous access	2
Intraosseous medication	2



Endotracheal Intubation***	5
Performing PPV with BVM	10
Performing endotracheal suctioning	2
Inserting supraglottic airway	10
Defibrillation: Automated and Semiautomated	2
Performing chest compressions	2
End-tidal CO2 monitoring and Interpretation of waveform capnography	10

\* Competency assessed on patients during the Laboratory, Clinical or Field Experience, or Capstone Field Internship. Success rates should be documented by the certified training program and made available to the Department upon request during routine inspections and, when applicable, complaint investigations.

\*\*Simulation permitted.

\*\*\*This is an optional skill. Once the licensed provider is in the field, training must be documented, and use is at the discretion of the Medical Director.

## Field Experience/Capstone Field Internship

**TABLE 4: Field Experience/Capstone Field Experience**

FIELD EXPERIENCE	CAPSTONE FIELD INTERNSHIP
Conducts competent assessment and management of prehospital patients with assistance while TEAM LEADER or TEAM MEMBER	Successfully manages the scene, performs patient assessments, and directs medical care and transport as TEAM LEADER with minimal to no assistance
Minimum of 5 exposures	Minimum of 5 exposures

## EMT Skills

The following skills are psychomotor skills for which prior EMT certification provides reasonable evidence of competency. Programs that combine EMT and AEMT education must have a plan for ensuring competency in these skills, presentable to the Department during inspection. Programs are strongly encouraged, but not required, to verify competency for these skills due to quick degradation or incomplete acquisition of the skills.

**TABLE 5: EMT Skills**

<b>EMT OR PREREQUISITE SKILL COMPETENCY*</b>
Inserting NPA
Inserting OPA
Performing oral suctioning
Performing FBAO: adult
Performing FBAO: infant
Administering oxygen by nasal cannula
Administering oxygen by face mask
Ventilating an adult patient with a BVM
Ventilating a pediatric patient with a BVM
Ventilating a neonatal patient with BVM
CPAP
Applying a tourniquet/hemorrhage control
Applying a cervical collar
Performing spine motion restriction
Lifting and transferring a patient to a stretcher
Mechanical patient restraint
Splinting a suspected long bone injury
Stabilizing an impaled object
Eye Irrigation
Dressing and bandaging a soft tissue injury
Applying an occlusive dressing to an open wound to the thorax
Performing complicated/uncomplicated delivery



Performing a comprehensive physical assessment:

- Vital signs
- Pulse oximetry
- Blood glucose monitoring

Medication administration

Performing CPR: adult, pediatric, and neonate\*\*

Defibrillation: Automated and Semi-automated

\* Must document reasonable evidence of motor skill competency which can be documentation collected by the certified training program or an attestation signed by the student. Evidence should be made available to the Department upon request during routine inspection or complaint investigation.

\*\*Current CPR certification constitutes sufficient evidence this competency is met.

Reference:

[National Association of State EMS Officials. Advanced Emergency Medical Technician Student Minimum Competency Model Guideline. 2023.](#)