

# Emergency Medical Science

Technical Standards: The technical standards as stated here reflect performance abilities that are necessary for a student to successfully complete the requirements of the Emergency Medical Science curriculum. It should be noted that under the Americans with Disabilities Act “A qualified person with a disability is one who can perform the essential function of a job with or without reasonable accommodation.” Please read the standards carefully and seek clarification if necessary

According to the nature of the work required in Emergency Medical Services, and the educational requirements of the Emergency Medical Sciences program, the following job overview and technical standards have been defined for Emergency Medical Science applicants. These technical standards are based upon the functional job analysis of an EMT, developed by the North Carolina Office of EMS. You are advised to read the information carefully and seek clarification if necessary.

## **JOB OVERVIEW:**

Emergency Medical Technicians (EMTs) work as part of a team. Thorough knowledge of theoretical procedures and the ability to integrate knowledge and performance into practical situations are critical. Self-confidence, emotional stability, good judgment, tolerance for high stress, and a pleasant personality are also essential characteristics of the successful EMT at any level. Aptitudes required for work of this nature are good physical stamina, endurance, and body condition that would not be affected by lifting, carrying, and balancing at times, patients in excess of 125 pounds (250 pounds with assistance). Motor coordination is necessary to carry out patient assessment and treatment procedures.

Safely driving the ambulance, accurately discerning street names through map reading, and correctly distinguishing house numbers or business locations are essential to expedient task completion. The ability to present to a physician an accurate and concise verbal report of a patient’s condition is critical. EMTs must also be able to summarize all data in the form of a written report.

## **TECHNICAL STANDARDS:**

- 1. Reasoning development:** The student must be able to apply principles of rational systems to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. The student must be able to interpret a variety of instructions furnished in written, oral, diagrammatic, or schedule form.
- 2. Mathematical development:** The student must be able to compute ratio and proportion, percentage, volumes, weights, and measures.
- 3. Language development:** The student must be able to read journals, manuals, and dictionaries. The student must be able to prepare summaries and reports using a prescribed format and conforming to rules of punctuation, grammar, and diction.
- 4. Verbal aptitude:** The student must be able to question patients to obtain a medical history and personal data, and to determine if the patient is allergic to any medications or has any complicating illness.
- 5. Spatial aptitude:** The student must be able to visualize anatomy and the relationship between the point of injury and area(s) affected. The student must be able to place treatment devices or administer manual treatment in relationship to the affected body part.
- 6. Form perception:** The student must be able to perceive pertinent details of size, shape, and form of skeletal structure, organs, and tissue.
- 7. Clerical perception:** The student must be able to note pertinent detail in written instructions, especially in amounts and strengths of medications to administer. The student must accurately perceive numbers when reading instruments, preparing medications and filling syringes for injections. The student must be able to accurately record data (such as temperature, respirations, pulse rate, blood pressure, and medications administered) on patient reports. The student must be able to prepare and compile records to maintain an inventory of medications and supplies.
- 8. Motor coordination:** The student must be able to coordinate vision with finger and hand movements to give injections and medications, to position and apply dressings, to measure medications, and to operate patient care equipment.
- 9. Finger dexterity:** The student must be able to wrap bandages, apply splints, use syringes, and operate patient care equipment.
- 10. Manual dexterity:** The student must be able to render care to a patient during emergency situations.
- 11. Eye-Hand-Foot coordination:** The student must be able to operate an ambulance and balance, lift, position, and transport a patient.