

MLS HANDBOOK: TECHNICAL STANDARDS & ESSENTIAL FUNCTIONS

SA 2.1: Essential Functions & Technical Standards

Introduction

UNMC is committed to diversity, equity and to attracting and educating students who will make the population of health care professionals representative of the national population. The Bachelor of Science Degree in Medical Laboratory Science (MLS) is recognized as requiring the acquisition of general knowledge, professionalism, and basic technical skill performance in all areas of Medical Laboratory Science.

The National Accreditation Agency for Clinical Laboratory Science (NAACLS) defines MLS entry-level competencies as:

At entry level, the medical laboratory scientist will possess the entry level competencies necessary *to perform* the full range of clinical laboratory tests in areas such as Clinical Chemistry, Hematology/Hemostasis, Immunology, Immunohematology/Transfusion medicine, Microbiology, Urine and Body Fluid Analysis and Laboratory Operations, and other emerging diagnostics, and will play a role in the development and evaluation of test systems and interpretive algorithms.

The medical laboratory scientist will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed or performed.

At entry level, the medical laboratory scientist will have the following basic knowledge and skills in:

1. Application of safety and governmental regulations and standards as applied to clinical laboratory science;
 2. Principles and practices of professional conduct and the significance of continuing professional development;
 3. Communications sufficient to serve the needs of patients, the public, and members of the health care team;
 4. Principles and practices of administration and supervision as applied to clinical laboratory science;
 5. Educational methodologies and terminology sufficient to train/educate users and providers of laboratory services;
 6. Principles and practices of clinical study design, implementation, and dissemination of results.
-

UNMC MLS Technical Standards

The following technical standards are required independently of all students enrolled in the MLS program:

Assessment of Information

A student will independently acquire and/or assess information:

- By following all provided instructions.
- Presented in program material and coursework by available resources (e.g., lectures, written material, images, videos, and audio).
- From computer systems in the academic and clinical laboratory environment.
- Presented in demonstrations and experiences in practice and clinical laboratory environments.
- By interpreting and analyzing patient laboratory data to determine next best actions and correlation with probable diagnoses.
- By synthesizing information, problem solving, and thinking critically to determine the most appropriate clinical diagnostic testing step(s), including protocol adaptation.
- Interpret visual text, graphics, and images and auditory information (e.g., instrumental alarms) while interacting with computer terminals and laboratory instrumentation.

Intellectual Ability (Cognitive)

A student will independently:

- Learn relevant content in basic science and clinical courses at a level deemed appropriate for an entry-level MLS practitioner.
- Distinguish and identify objects both macroscopically and microscopically.
- Perform clinical laboratory patient testing safely and accurately by following written procedures under the supervision of faculty and practitioners.
- Demonstrate organizational and time management skills.

Motor Skills

A student will independently:

- Handle, process, and manipulate body fluid specimens, biohazardous materials (e.g., tissues, infectious materials), hazardous chemicals, and instruments safely to prevent harm to self and others.
- Perform delicate manipulations on specimens, instruments, and equipment (e.g., calibrated pipettes and microscopes) sufficient to meet specifications for diagnostic testing accuracy.
- Lift and move objects up to 50 pounds (e.g., load individual tubes on an analyzer, move tube racks from one bench to another, replace instrument reagents).
- Perform technical procedures, such as isolating bacteria by smoothly moving a loop (i.e., 6-inch wire with a looped end) over the surface of an agar culture plate without tearing the agar surface.
- Stand or navigate the workspace approximately 75% and sit approximately 25% of clinical laboratory work time.

- Distinguish and identify objects both macroscopically and microscopically.
- Perform repetitive fine motor movements (e.g., pipetting, uncapping tubes).

Behavioral

A student will independently:

- Demonstrate coping skills for full utilization of their intellectual abilities.
- Maintain mature, sensitive, effective relationships with peers, faculty, staff, preceptors, and other professionals under all circumstances.
- Work accurately and safely in a distracting, loud, and stressful environment (e.g., work under time constraints), including concentrating on tasks, interpreting, and recording data, and making subjective evaluations and decisions where mistakes may have a high impact on patient care.
- Work physically close to others (e.g., lab coats touching).
- Adapt to changing environments while prioritizing tasks.
- Demonstrate integrity, responsibility, dependability, initiative, patience, flexibility, and tolerance.
- Show professional respect for all individuals, including respect for self.
- Contribute to the work of a collaborative team.

Communication

A student will independently communicate:

- Effectively in verbal and written English to obtain and transmit information to all members of the health care team.
- In a professional and timely manner per program requirements.

These standards identify the requirements for admission, retention, and graduation from the program.

To qualify for the College of Allied Health Professions MLS Bachelor of Science degree, individuals must meet both our academic and technical standards, with or without reasonable accommodations. These standards should not be a deterrent to any candidate with disabilities who desires to pursue education in this program. Candidates with disabilities bring unique perspectives that contribute to the diversity of the student population and will create a diverse healthcare workforce of culturally competent practitioners who can meet the needs of their patients.

For further information about services and resources for students and candidates with disabilities who would like to start the accommodation request process, please contact the Accessibility Services Center at UNMCASC@unmc.edu or visit www.unmc.edu/accessibility.

Return to MLS Handbook

MLS Essential Functions & Technical Standards Website
(<https://www.unmc.edu/alliedhealth/academics/programs/mls/admission/essential-requirements.html>)