

MEDICAL LABORATORY SCIENCE PROGRAM ESSENTIAL AND TECHNICAL STANDARDS GUIDE

Health sciences programs establish technical standards and essential functions to ensure that students have the abilities required to participate and potentially be successful in all aspects of the respective programs.

Students are required to meet technical standards and essential functions for the medical laboratory science (MLS) program as indicated below. Satisfactory completion of the MLS program and successful employment following graduation demands your ability to meet the following requirements.

These requirements are made available to facilitate a valid career choice by the student. The achievement of these cognitive and technical competencies should not endanger or compromise the health and welfare of other students, patients, faculty, or allied health professionals and should not impose "undue hardship" upon the medical facility and/or its patients. If you are uncertain as to your ability with any of these essential functions, please consult with the MLS Program Director at mls-program@uiowa.edu.

Observational

Ability to participate actively in all demonstrations, laboratory activities and clinical experiences in the professional program component. Such observation and information requires functional use of visual, auditory and somatic sensations in order to:

- Observe laboratory demonstrations in which biologicals (e.g., body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, microbiological, and immunologic components.
- Characterize the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products.
- Employ a clinical grade binocular microscope to discriminate among fine structural differences of microscopic specimens.
- Read and comprehend text, numbers, and graphs displayed in print and on a video monitor.

Movement

Sufficient motor ability to execute the movement and skills required for safe and effective performance of duties, which include being able to:

- Move freely and safely about a laboratory.
- Reach laboratory benches and shelves, patients lying in hospital beds or patient seated in specimen collection furniture.
- Travel to numerous clinical laboratory sites for practical experience.
- Perform moderately taxing continuous physical work, often requiring prolonged sitting, over several hours.

- Maneuver phlebotomy and culture acquisition equipment to safely collect valid laboratory samples.
- Possess finger and manual dexterity necessary to control laboratory equipment (i.e. pipettes, inoculating loops, test tubes) and adjust instruments to perform laboratory procedures.
- Use a computer keyboard to operate laboratory instruments and to calculate record, evaluate, and transmit laboratory information.

Communication

Ability to communicate effectively in English using verbal, nonverbal and written formats with faculty, other students, clients, families, and all members of the healthcare team in order to:

- Read and comprehend technical and professional materials (e.g., textbooks, magazines, journal articles, handbooks, and instruction manuals)
- Follow verbal and written instructions in order to correctly and independently perform laboratory test procedures.
- Clearly instruct patients prior to specimen collection.
- Effectively, confidentially, and with sensitivity converse with patients regarding laboratory tests.
- Communicate with faculty members, fellow students, staff, and other healthcare professionals verbally and in a recorded format (writing, typing, graphics, or telecommunication).
- Transmit information to clients, fellow students, faculty and staff, and members of the healthcare team.
- Independently prepare papers, prepare laboratory reports, and take paper, computer, and laboratory practical examinations.

Intellectual

Ability to collect, interpret and integrate information and make decisions, which includes:

- Possessing intellectual skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and criticism.
- Being able to exercise sufficient judgment to recognize and correct performance deviations.
- Applying knowledge to new situations and to problem-solving scenarios.

Behavioral

Possess the emotional health and stability required for full utilization of the student's intellectual abilities, the exercise of professional judgment, the prompt completion of all academic and patient care responsibilities and the development of mature, sensitive, and effective relationships with faculty, fellow students, clinical instructors, patients, and other members of the healthcare team. The student should be able to:

- Manage heavy academic schedules and deadlines.
- Manage the use of time and be able to systemize actions in order to complete professional and technical tasks within realistic constraints.
- Possess the emotional health necessary to effectively employ intellect and exercise appropriate judgment under conditions of physical and emotional stress.

- Provide professional and technical services while experiencing the stresses of task-related uncertainty (e.g., ambiguous test ordering, ambivalent test interpretation), emergent demands (e.g., "stat" test orders), and a distracting environment (e.g., high noise levels, crowding, complex visual stimuli).
- Be flexible and creative, as well as adapt to professional and technical change.
- Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to patients, self, and nearby individuals.
- Adapt to working with unpleasant biologicals.
- Support and promote the activities of fellow students and of healthcare professionals. Promotion of peers helps furnish a team approach to learning, task completion, problem solving, and patient care.
- Be honest, compassionate, ethical, and responsible. Accept responsibility and accountability for one's own actions. The student must be forthright about errors or uncertainty. The student must be able to critically evaluate his or her own performance, accept constructive criticism, and look for ways to improve performance (e.g., participate in enriched educational activities). The student must be able to evaluate the performance of fellow students and tactfully offer constructive comments.
- Work within environments of cultural diversity: works well with people and with a variety of ethnic, social, or educational backgrounds.

Signature

Date

Adapted from: Fritsma, G.A., Fiorella B. J., and Murphey, M. Essential Requirements for Clinical Laboratory Science. CLS 1996. Vol. 9, pp 40-43

The National Accrediting Agency for Clinical Laboratory Science (NAACLS) requires educational programs to define and publish "specific...technical standards (essential requirements) required for admission to the program and to determine that the applicants or students' health will permit them to meet the ...technical standards..." (Essential Requirements)