UNIVERSITY OF TENNESSEE MEDICAL CENTER
MEDICAL LABORATORY SCIENCE PROGRAM

ESSENTIAL FUNCTIONS OF A MEDICAL LABORATORY SCIENTIST

Essential Functions (technical standards) are the non-academic standards that a student must possess to successfully complete the clinical laboratory science program and become a successful clinical laboratory scientist. Examples of the functions that applicants must be physically able to accomplish are listed below. If you are not sure that you will be able to meet these essential functions, please consult with the program director for further information and to discuss your individual situation.

To be successful in the Medical Laboratory Science program at the University of Tennessee Medical Center, a student must meet the following requirements. Before beginning in the program, each student must sign a document stating that he/she has read and can fulfill the essential functions requirements.

Visual and Observational Skills:

- Observe laboratory demonstrations in which biological specimens are tested for their biochemical, hematological, immunological, and histochemical components.
- Characterize the color, odor, clarity, and viscosity of biological samples and reagents.
- Use a clinical binocular microscope to discriminate among fine structural and color (hue, shading, and intensity) differences of microscopic specimens.
- Read and comprehend text, numbers, and graphs displayed in print and on a video monitor.
- Recognize instrument alarms.

Motor and Mobility Skills:

- Move freely and safely about a laboratory.
- Reach laboratory bench tops and shelves, patients lying in hospital beds, or patients seated in specimen collection furniture.
- Perform laboratory tests adhering to existing laboratory safety standards.
- Perform moderately taxing continuous physical work, often requiring prolonged sitting over several hours.
- Maneuver phlebotomy and culture acquisition equipment to safely collect valid laboratory specimens from patients.
- Perform fine motor tasks such as pipetting, inoculating media, withdrawing a blood sample from a patient, handling small tools and/or parts to repair and correct equipment malfunctions, and transferring drops into tubes of small diameter.
- Use a computer keyboard to operate laboratory instruments to calculate, record, evaluate, and transmit laboratory information and to prepare reports, presentations, procedures, and spreadsheets.

Communication Skills:

- Interact and communicate effectively in English using verbal, non-verbal, and written formats with faculty, students, patients, families, and all members of the healthcare team.
- Communicate confidentially with patients, family, and members of the healthcare team concerning specimen collection or test results.
- Clearly instruct patients prior to specimen collection.
- 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.
- Effectively use computer software (word processor, spreadsheet, database, information systems), instructional technology, and the Internet for communication, education, and professional purposes.
- Independently prepare papers, laboratory reports, and take paper, computer, and laboratory practical examinations at the post-secondary level.
- Deliver oral presentations to fellow students and health care professionals.

Intellectual Requirements:

- Possess intellectual skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and criticism
- Exercise sufficient judgment to recognize and correct performance deviations.
- Collect, interpret, and integrate information using sound judgment in making decisions.
- Apply knowledge to new situations and to problem solving scenarios.

Behavioral Skills:

- Manage the use of time and systematize actions in order to complete professional and technical tasks within realistic constraints.
- Recognize potentially hazardous materials, equipment, and situations, and proceed safely in order to minimize risk of injury to patients, self, and nearby individuals.
- Effectively apply knowledge and exercise appropriate judgment to laboratory and classroom situations.
- 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 in a timely manner while under stressful laboratory situations (i.e., instrument malfunction / downtime, ambiguous test orders, unacceptable test specimens, unclear test interpretation), emergent demands (i.e. “stat” test orders), and distracting environment (i.e., high noise levels, crowding, complex visual stimuli).
- Adapt to working with unpleasant biological specimens.
- Show flexibility and creativity to adapt to professional and technical change.

- Support and promote the activities of fellow students and health care professionals, contribute to the team approach to learning, task completion, problem solving, and patient care.
- Be honest, compassionate, ethical, and responsible.
- Be forthright about errors or uncertainty.
- Critically self-evaluate his or her performance, accept constructive criticism, and look for ways to improve performance.
- Fairly evaluate the performance of fellow students and tactfully offer constructive comments.
- Show respect for individuals of different age, ethnic background, religion, and / or sexual orientation.
- Conform to standards of dress, appearance, language, public behavior, and program policy guidelines.

(Adapted from Fritsma, G.A., Fiorella, B. J., and Murphy, M. "Essential Requirements for Clinical Laboratory Science." Clinical Laboratory Science. Jan/Feb 1996, p. 40-43.

ESSENTIAL FUNCTIONS

I have read and understand the essential functions for a medical laboratory scientist and I certify that I am able to perform these functions.

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Student Signature

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Date