

## **Lexington Medical Center School of Medical Technology**

### **Essential Functions and Technical Standards for Medical Laboratory Scientists**

Technical Standards and Essential Functions are the non-academic standards that a student is required to possess in order to participate in the Medical Laboratory Science program.

1. The student must have the ability to master information presented in the course work in the form of lectures, written material, and images. The student must be able to perform patient testing safely and accurately. He/she must be able to distinguish and identify objects both macroscopically and microscopically.
2. The student must have sufficient upper body muscle coordination and adequate dexterity to handle body fluid specimens, biohazards, chemical hazards, and instruments safely in order to prevent harm to self or others. He/she must be able to perform delicate manipulations on specimens, instruments, and equipment sufficient to meet specifications for accuracy in diagnostic testing. He/she must be able to lift and move objects. He/she must have fine motor control skills to carry out technical procedures such as isolating bacteria by smoothly moving a loop over the surface of an agar gel culture plate without tearing the surface of the agar. The student must have sufficient touch discrimination to discern veins in order to perform venipunctures.
3. The student must be able and willing to work with blood and with organisms that may be infectious. He/she must be able to work safely with a wide variety of chemical reagents.
4. The student must be able to operate a computer. Frequent interaction with computer terminals and laboratory equipment is necessary, requiring interpretation of visual presentation on screen, repetitive hand movements and fine manipulation.
5. The student must possess the emotional stability required for full utilization of his/her intellectual ability. He/she must be able to work accurately and safely under stress (work under time constraints), read and record numbers accurately, perform repetitive tasks, concentrate in distracting situations, and make subjective evaluations and decisions where mistakes may have a high impact on patient care.
6. The student must be able to communicate effectively in verbal and written English in order to obtain and transmit information to patients and members of the health care team.
7. The student must possess attributes which include integrity, responsibility, and tolerance. He/she must show respect for self and others, work independently as well as with others, and project an image of professionalism.

The following are examples of activities that a Medical Technology/Medical Laboratory Science student will be required to perform in order to successfully complete the program (though not inclusive):

#### Visual and Observation skills:

A student in the MLS program must possess sufficient visual and observational skills to perform and interpret laboratory assays, including the ability to do the following:

- Read calibration lines on pipettes.
- Read and comprehend test procedures, numbers, and graphs displayed in print and on a video monitor.
- Characterize the color, consistency, and clarity of biological specimens or reagents.
- Use a clinical grade microscope to discriminate among fine differences in structure and color (i.e. hue, shading, and intensity) in microscopic specimens.
- Observe laboratory demonstrations in which biologicals are tested for their biochemical, hematological, microbiological, and immunologic components.

#### Motor and Mobility Skills:

A student must possess adequate motor and mobility skills to:

- Be able to move around the laboratory and hospital. Be able to 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. This work may require prolonged sitting and/or standing.
- Carry trays and objects weighing up to 10 pounds and occasionally carry objects of 30 pounds.
- Perform laboratory tests using a microscope.
- Manipulate objects precisely and perform assays that require fine or gross motor skills using good eye-hand physical coordination. Examples of such skills are pipetting, inoculating media, withdrawing a blood sample from a patient, handling small tools and /or parts to repair equipment malfunctions, and transferring drops into tubes of small diameter.
- Use a computer keyboard to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information.

#### Communication skills:

A student must possess adequate communication skills to:

- Communicate with individuals and groups (faculty members, fellow students, staff, patients, and other health care professionals) verbally and in recorded format (writing, typing).
- Cooperate with others in a positive and tactful manner. Respect others.
- Adhere to strict confidentiality with patient information. Communicate appropriately (effectively, confidentially, and sensitivity) with patients, families, doctors and nursing staff.
- Accept constructive criticism in a positive manner.

- Evaluate the performance of fellow students, staff, and healthcare professionals verbally and in a recorded format (writing, typing, graphics, or telecommunications).
- Be able to hear, for example, alarms and telephones.
- Clearly instruct patients prior to specimen collection.
- Follow verbal and written instructions in order to correctly and independently perform laboratory test procedures.

#### Intellectual Requirements:

- Possess these intellectual skills: mathematical calculations, reasoning, comprehension, measurement, analysis, self-expression, integration, and criticism.
- Exercise sufficient judgment to recognize and correct performance deviations.
- Independently prepare papers, prepare laboratory reports, and take paper, computer, and laboratory practical examinations.
- Ability to solve problems and think critically.
- Critically evaluate her/his own performance and accept constructive criticism and look for ways to improve.

#### Behavioral skills:

A student must possess adequate behavioral skills to:

- Be able to sit for lectures, laboratory demonstrations and/or exercises, written or oral examinations, complete written assignments, deliver presentations, and perform laboratory testing.
- Be able to work quickly and accurately under stressful or changing situations, to handle highly confidential and highly sensitive information. Be able to work in a thorough, careful, efficient, and organized manner, either alone or as a laboratory team member.
- Adapt to working with unpleasant biological specimens.
- Be able to work safely with sharps, biohazards, and hazardous material. Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to patients, self, and nearby individuals.
- Possess the emotional health necessary to effectively apply knowledge and exercise appropriate judgment.
- Be able to manage the use of time and to prioritize and multitask in order to complete professional and technical tasks within realistic constraints. Be able to organize work and direct others as well as exercise independent judgment and assume responsibility for own work.
- Be honest, compassionate, ethical, and responsible. The student must be forthright about errors or uncertainty. The student must be able to critically evaluate her or his own performance, accept constructive criticism, and look for ways to improve.
- Exhibit professional behavior by conforming to appropriate standards of dress, appearance, language and public behavior.
- Think logically and to correlate information in order to solve problems.
- Exercise ethical judgment, integrity, honesty, dependability, and accountability and be forthright about errors or uncertainty.
- Be flexible and creative and adapt to professional and technical change.

- Be able to practice critical thinking in using problem solving, common sense, critical evaluation, decision-making skills, and objectivity in approaching laboratory problems. Be able to analyze, measure, calculate, and apply information in problem solving.
- Support and promote the activities of fellow students and other health care professionals in a team approach to learning.
- Show respect for individuals of different age, ethnic background, religion, and/or sexual orientation.

Upon acceptance into the program, the student is required to sign a statement indicating that they have read and understand the essential functions for medical laboratory scientists. If the student is not sure that he/she will be able to meet these essential functions, the student should consult with the Program Director for further information and to discuss the individual situation. Also, immunocompromised individuals may put themselves at personal risk due to exposure to infectious agents that occurs in all aspects of the laboratory. It is the responsibility of the student with disabilities to request those accommodations that he/she feels is reasonable and is needed to execute the essential functions described.

**Student recruitment and admission shall be non-discriminatory in accordance with local, state, and federal regulations.**