Essential Requirements for the Medical Laboratory Science Program

Section 1. Essential Observational Requirements for the Medical Laboratory Science Program

The Medical Laboratory Science student must be able to:
♦ observe laboratory demonstrations in which biologicals (e.g. body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, immunological, microbiological, and histochemical components.
♦ describe the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products verbally and in writing.
♦ use a clinical grade binocular microscope to discriminate among fine structural and color (hue, shading, and intensity) differences of microscopic specimens.
♦ comprehend text, numbers, and graphs displayed in print and on a video monitor or screen.

Section 2. Essential Movement Requirements for the Medical Laboratory Science Program

The Medical Laboratory Science student must be able to:
♦ be at different sites and specific laboratory areas, at a designated time, for educational experiences.
♦ move safely around a laboratory.
♦ reach laboratory benchtops and shelves, patients lying in hospital beds or patients seated in specimen collection chairs.
♦ perform moderately taxing continuous physical work, often prolonged standing, over several hours.
♦ maneuver equipment to collect blood and other laboratory specimens from patients safely.
♦ use and safely control laboratory equipment (e.g. pipettes, test tubes, inoculating loops) and adjust instruments to perform laboratory procedures.
♦ use electronic devices to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information.

Section 3. Essential Communication Requirements for the Medical Laboratory Science Program

The Medical Laboratory Science student must be able to
♦ comprehend technical and professional materials (e.g. textbooks, journal articles, handbooks, procedure and instruction manuals).
♦ comprehend verbal communications, including lectures, discussions, and conversations with health care professionals and patients.
♦ 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 communicate with patients.
♦ communicate with faculty members, fellow students, staff, and other health care professionals in person and in recorded format (writing, typing, graphics, or telecommunication).
♦ independently prepare papers and laboratory reports and independently take examinations (written, computer, and laboratory practical exams) to demonstrate content mastery.
Section 4. Essential Cognitive Requirements for the Medical Laboratory Science Program

The Medical Laboratory Science student must be able to
♦ independently possess and demonstrate the following cognitive and problem-solving skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, self-expression, and compassion.
♦ be able to detect and correct performance deviations in laboratory tests.

Section 5. Essential Behavioral Requirements for the Medical Laboratory Science Program

The Medical Laboratory Science student must be able to
♦ manage the use of time and organize work in order to complete multiple tasks and responsibilities within realistic constraints.
♦ independently exercise appropriate judgment and apply cognitive skills in the classroom, laboratory, and health care settings.
♦ provide professional and technical services while experiencing the stresses of task-related uncertainty (e.g. ambiguous test ordering, ambivalent test interpretation), emergent demands ("stat" test orders), and a distracting environment (e.g. high noise levels, crowding, complex visual stimuli).
♦ be flexible and creative and adapt to professional and technical changes.
♦ recognize potentially hazardous materials, equipment, and situations and work safely in order to minimize risk of injury to patients, self and nearby individuals.
♦ adapt to working with biological substances (e.g. urine, blood, feces).
♦ foster a team approach by supporting and promoting the activities of fellow students and health care professionals in learning, task completion, problem solving, and patient care.
♦ admit when an error has been made, when uncertain about an analytical result, or when unsure about the appropriate response in professional situations.
♦ critically evaluate his or her own performance, accept constructive criticism, and seek ways for improvement (e.g. participate in enriching educational activities).
♦ evaluate the performance of fellow students, faculty, clinical instructors, and the program and tactfully offer constructive criticism.