

Essential Student Capabilities
The Medical Laboratory Science Program at
St. Christopher's Hospital for Children

Educational experience in a medical laboratory science program can be physically, emotionally, and intellectually demanding. The following list of essential requirements for education in the medical laboratory sciences was originally published in the Clinical Laboratory Science Journal, Vol. 9, No. 1, Jan/Feb 1996.

Essential Observational Requirements for the Medical Laboratory Sciences

The MLS student must be able to:

- observe laboratory demonstrations in which biologicals (i.e., body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, immunological, microbiological, and histochemical components,
- characterize the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products,
- employ a medical grade 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.

Essential Movement Requirements for the Medical Laboratory Sciences

The MLS student must be able to:

- move freely and safely about a laboratory.
- reach laboratory benchtops and shelves, patients lying in hospital beds or patients seated in specimen collection furniture.
- travel to numerous medical 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 specimens from patients,
- control laboratory equipment (i.e., pipettes, inoculating loops, test tubes) and adjust instruments to perform laboratory procedures,

- use an electronic keyboard (i.e., 101-key IBM computer keyboard) to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information,

Essential Communication Requirements for the Medical Laboratory Sciences

The MLS student must be able to:

- read and comprehend technical and professional materials (i.e., textbooks, magazine and 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 sensitively converse with patients regarding laboratory tests.
- communicate with faculty members, fellow students, staff, and other health care professionals verbally and in a recorded format (writing, typing, graphics, or telecommunication),
- independently prepare papers, prepare laboratory reports, and take paper, computer and laboratory practical examinations.

Essential Intellectual Requirements for the Medical Laboratory Sciences

The MLS student must:

- possess these intellectual skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and criticism.
- be able to exercise sufficient judgment to recognize and correct performance.

Essential Behavioral Requirements for the Medical Laboratory Sciences

The MLS student must:

- be able to manage the use of time and be able to systematize 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,
- be able to provide professional and technical services while experiencing the stresses to task-related uncertainty (i.e., ambiguous test ordering, ambivalent test interpretation), emergent demands (i.e., “stat” test orders) and a distracting environment (i.e., high noise levels, crowding, complex visual stimuli).

- be flexible and creative and 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 health care professionals. Promotion of peers helps furnish a team approach to learning, task completion, problem solving, and patient care.
- 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 (i.e., participate in enriched educational activities). The student must be able to evaluate the performance of fellow students and tactfully offer constructive comments.

As an applicant to the Medical Laboratory Science Program at St. Christopher's Hospital for Children, I have read and comprehend the essential requirements as described in this document. Based on my understanding of these requirements, I possess the capability to function as a student in this program.

Name of Applicant

Signature of Applicant

Date