

## **CLS PROGRAM GOALS AND COMPETENCIES**

Academic education and clinical training to provide laboratory service in healthcare systems qualify the graduate of clinical laboratory science programs. The School of Clinical Laboratory Science/Medical Technology strives to maintain a high-quality educational environment for students.

### **Program Goals:**

The goals of the University of Tennessee Medical Center Clinical Laboratory Science program are to:

- Provide conscientious, caring, skilled medical laboratory scientists who are highly capable of comprehending, practicing, and furthering medical laboratory science, while meeting healthcare needs in the region.
- Uphold and promote the academic standards of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), the State of Tennessee Medical Laboratory Board, and the University of Tennessee.
- Provide an appropriate combination of didactic and clinical experiences so that the students will develop competency in the skills needed to meet challenges of the profession.
- Provide a stimulating atmosphere for students, faculty, and laboratory staff to promote the desire for learning and the development of new knowledge to respond to changing demands of the profession.
- Maintain a source of professionals who participate in bringing new knowledge to the clinical laboratories through research and continuing education.
- Develop graduates with the capacity to participate in leadership roles in education and management.
- Promote interest in the growth of medical laboratory science as a profession.

### **Program Competencies:**

To be successful in the Clinical Laboratory Science program at the University of Tennessee Medical Center, a student must meet the following 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, other students, students, 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 evaluate student’s own 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.