

TRINITY HEALTH SYSTEM SCHOOL OF MEDICAL LABORATORY SCIENCE STEUBENVILLE, OHIO

THE PROFESSION OF MEDICAL LABORATORY SCIENCE

Medical Laboratory Science is an allied health discipline that provides routine and specialized clinical laboratory testing on a variety of patient specimens. Such test results aid in the diagnosis, treatment, prognosis, and prevention of disease, and maintenance of health. Testing procedures are performed using manual techniques, molecular diagnostics, and state-of-the-art technology employing exceedingly sophisticated instrumentation. These tasks require extremely competent individuals who can face the dramatic changes in such a dynamic and ever-changing field. The Medical Laboratory Scientist of today is a superbly educated individual who is a vital member of the healthcare team. The major areas of the clinical laboratory are: Clinical Chemistry, Hematology/Coagulation, Immunology, Immunohematology, Microbiology, Urinalysis and Body Fluid Analysis, and Laboratory Operations.

HISTORY AND OVERVIEW OF THE PROGRAM

In 1954, the Ohio Valley Hospital began the School of Medical Technology. This program was accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and provided area and regional hospital laboratories with highly qualified technologists/scientists. Unfortunately, when the affiliation between Ohio Valley and St. John Hospital occurred in the mid-1990s, the school sought and was granted inactive status by NAACLS due to logistical constraints. The school was officially closed in 2001. Today, there is an urgent need for qualified laboratory professionals. The retirement rate of technologists/scientists and technicians is at an all-time high. The limited number of laboratory science programs which are graduating MLS cannot keep up with the demand. Therefore, in late 2018, after much consideration and study, Trinity Health System decided to re-open the School of Medical Laboratory Science.

All lecture and laboratory experiences are conducted at the West laboratory. The student is given a thorough background in didactic and practical experience in all disciplines of the profession. The program's curriculum exposes the student to all areas of the clinical laboratory: Microbiology, Molecular Diagnostics, Clinical Chemistry, Hematology/Coagulation, Immunology, Urinalysis and Body Fluid Analysis, and Immunohematology, as well as phlebotomy of inpatients and outpatients, computer technology, management and educational skills, and principles of quality improvement (Laboratory Operations).

We believe that it is our responsibility as medical laboratory science educators to develop a program which expands on the basic requirements of pre-analytic, analytic, and post-analytic factors, and introduces the higher levels of medical laboratory science and technology. We emphasize theoretical principles and their clinical interpretation through a selected series of experiences provided in our laboratory. Through the guidance and instruction of a qualified and dedicated faculty, the student grows in his/her ability to solve problems, to make judgements, and to assume responsibility in the clinical setting. These experiences stimulate self-direction and self-evaluation, while providing for personal satisfaction and individual growth. We believe this balanced program structure provides the student with both the science and the art of medical laboratory science. We stress that the patient is our primary obligation, and that the ministry of Trinity Health System is to provide patients with superior and safe healthcare. We strive to create an environment for patients and their families that is professional, comprehensive, and compassionate.

Students enrolled in the Trinity Health System School of Medical Laboratory Science are subject to all policies and procedures of the program, and to the policies of Trinity Health System concerning student educational programs.

MISSION

The Trinity Health System School of Medical Laboratory Science adheres to the mission of the ministry of the hospital to deliver health care of the highest quality in a respectful, reverent, and compassionate manner conducive to the dignity of the individual. The school offers the *Professional Year of Study* for eligible students who wish to pursue a career in Medical Laboratory Science. Intense theoretical instruction and laboratory experience will be provided to the students to aid them in developing the knowledge, skills, attitudes, and certification required of a competent laboratory professional.

GOALS

The major goals of the program are:

1. To deliver the educational experience necessary for students to achieve the competencies needed to function at the level of a career-entry MLS, and to pass the national certification exam, meeting all benchmarks set by NAACLS for graduation, employment, and certification examination pass rates.
2. To convey the laboratory's role in quality patient care with an emphasis on safety, compassion, cooperation, effective communication, professionalism, and continuous quality improvement.
3. To promote a love of learning in order to establish a desire for continuing education, professional development, and certification maintenance.
4. To prepare graduates to assume the roles of supervisors, managers, and educators at an introductory level.

OUTCOMES

Upon successful completion of the program, the graduate will be able to function at the level of a career-entry MLS and be able to:

1. Obtain patient specimens via venipuncture and perform complex analyses on all patient specimens, using a variety of manual and automated techniques in all areas of the laboratory, correlating results with clinical significance.
2. Recognize problems, identify causes (technical, instrumental, physiological), distinguishing pre-analytic, analytic, and post-analytic variables, synthesize alternatives, and determine solutions using diverse methods of troubleshooting and problem-solving techniques appropriate to the situation.
3. Exhibit knowledge in action of laboratory regulations, quality control, continuous quality improvement, and best practices of safety, in all aspects of patient contact, specimen handling, testing, and disposal of materials with integrity and culpability, having the capacity and resourcefulness to assume the responsibility and accountability for accurate results.
4. Actively participate in continuing education and in-service programs, especially recognizing the responsibility to continue learning in areas of supervision (being answerable and accountable for the work performed in the area of supervision), management, and education (willingness to teach/train new employees); evaluation techniques; and future planning and implementation of new laboratory methods and testing.
5. Communicate effectively, both verbally and in writing, to patients and all members of the health-care team with accuracy, mindfulness, compassion, and empathy.
6. Display acceptable professional and ethical standards in actions, dress, and attitude.
7. Be prepared to take the national certification exam.

THE PROFESSIONAL YEAR OF STUDY

Trinity Health System accepts a maximum of four (4) students per year into the School of Medical Laboratory Science. The *Professional Year of Study* covers a period of eleven (11) consecutive months during which time the students rotate in each department of the clinical laboratory and participate in a formal lecture program, including Laboratory Methods, Immunohematology, Clinical Chemistry, Microbiology (Bacteriology, Parasitology, Mycology, and Virology), Hematology/Coagulation, Urinalysis and Body Fluid Analysis, Immunology, and Laboratory Operations (Management, Educational Methodologies, and Special Projects). Molecular Diagnostics, while not a separate course, will be covered in other subject areas. All instruction follows a planned outline with objectives, text assignments, informal bench lectures, discussions, demonstrations, supervised practice, practical examinations, and oral and written tests and quizzes. Pre-analytic factors and sample preparation; analytic factors and test methodology, theory, instrumentation, and quality control and assurance; and post-analytic factors and clinical correlation of results, are taught in theory and emphasized on the bench.

The students' year consists of a total of 40 hours per week for 46 weeks. Classes typically begin the first or second Monday in August, and end the fourth Friday in June of the following year. The hours are Monday through Friday, *usually* 6:00 AM to 2:30 PM, with students being made aware of any changes with ample time to adjust. During this time the student spends approximately 400 hours in formal lecture and 1200 hours in programmed practical laboratory activity. Instruction and practice in Phlebotomy are encountered during orientation and continue as part of the clinical practica. Three weeks are provided for vacation during the calendar year. National holidays and Good Friday are observed.

Formal class lectures which are given by the program director, pathologists, and other qualified medical laboratory scientists/technologists are scheduled 8-10 hours per week in the laboratory classroom or hospital conference rooms. The lectures are designed to cover theoretical principles relating to laboratory testing, biochemical processes occurring in both health and disease, and the correlation of laboratory data to diagnosis and treatment. The student attends lectures as outlined with the balance of time spent in practical laboratory experience. A comprehensive "mock registry" exam is given one to two weeks prior to the end of the year, and a certificate of completion is awarded to the successful student upon completion of the program.

Trinity Health System School of Medical Laboratory Science is affiliated with Youngstown State University to provide MLS majors their final year, upon which 32 credits for the *Professional Year of Study* will be transferred to the university to fulfill requirements for a BS in MLS. The program is also offered to those students who already possess a Bachelor of Science in Biology, Chemistry, or a related field, and who meet the published requirements, culminating in the awarding of a certificate of completion.

Students are strongly encouraged to take the Board of Certification exam offered by the American Society for Clinical Pathology or the American Medical Technologists certification exam within a few weeks of successful completion of the program. Neither completion of the program, nor the certificate awarded is contingent upon taking or passing the either exam.

ACCREDITATION

The Trinity Health System School of Medical Laboratory Science is fully accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS). Students who successfully complete the program are eligible to take the American Society for Clinical Pathology Board of Certification Exam or the American Medical Technologist Certification Exam. More information on the accreditation process can be found by contacting NAACLS:

National Accrediting Agency for Clinical Laboratory Science
5600 N. River Rd, Suite 720
Rosemont IL 60018-5119
773.714.8880
www.NAACLS.org

More information regarding ASCP BOC certification can be found at www.ASCP.org.

More information regarding AMT certification can be found at www.americanmedtech.org

ADMISSION POLICIES

PREREQUISITES*

BIOLOGY: A minimum of 16 semester hours (24 quarter hours) to include immunology **and** a full course, with a laboratory section, in microbiology, taken within the last 7 years. The coursework in immunology may be included as a separate course or as part of another course. All biology courses must be applicable toward a major in biology or medical laboratory science/technology. Survey courses are not acceptable.

CHEMISTRY: A minimum of 16 semester hours (24 quarter hours) to include organic and/or biochemistry with a laboratory section, taken within the last 7 years. These courses must be applicable toward a major in chemistry or medical laboratory science/technology. Survey courses are not acceptable.

MATHEMATICS: A minimum of one (1) course of 3/4 semester hours (5 quarter hours) in college level math. Remedial math is not acceptable.

Courses in computer science/technology, management, education, and medical terminology are recommended but not required. Each candidate should have achieved or preferably surpassed a cumulative GPA of 2.7 and a minimum GPA of 2.7 in Biology and Chemistry courses (4.0 grading system).

FOREIGN BACCALAUREATE DEGREES

Individuals possessing a Baccalaureate Degree from a country other than the United States and wanting to enter a NAACLS accredited program in Medical Laboratory Science must meet the specified requirements which are subject to review and evaluation by the Program Director and the American Society for Clinical Pathology. Course descriptions, syllabi, and/or curricula must be provided upon request. Visit www.ascp.org/international for country specific information on verification of academic information. Certain countries' programs do not require transcript evaluations. If a transcript evaluation is required, please submit an original or photocopy of a transcript evaluation completed by an approved evaluation agency. Only evaluations from these listed agencies will be accepted. Contact the agency directly for information on obtaining an evaluation verifying U.S. degree equivalency and a course by course evaluation.

Send your transcript evaluation via one of the following:

Email: ascpinternational@ascp.org

Mail: ASCP International, 33 W. Monroe St. Suite 1600, Chicago, IL 60603-5617 USA

DISCRIMINATION/DISABILITY POLICIES

The School of Medical Laboratory Science does not discriminate on the basis of race, color, religion, sex, national origin, age, ancestry, or disability in the admission of students. The school provides *reasonable* accommodations to students with disabilities. Those students are required to inform the program director immediately upon admission as to the nature of the disability.

*These Prerequisites can be requirements for a previous Baccalaureate Degree in Biology or Chemistry possessed by the applicant. These students would be considered "4+1". If an applicant has a bachelor's degree older than 7 years, please contact the program director to discuss updating academic preparation. THS School of MLS is affiliated with Youngstown State University, where these courses would be completed prior to the *Professional Year of Study*, achieving a minimum of 90 semester hours, and upon successful completion of the program, will fulfill the remaining credits required for a Bachelor of Science degree. Such students are considered "3+1". If an accepted applicant is currently or has previously worked in a Trinity Health System hospital laboratory within the last year, the applicant may request **IN WRITING**, a reduced or exemption from a practicum/bench rotation. To initiate this process, the applicant must have his/her prior experience in each department documented by the laboratory supervisor. A shortened clinical rotation(s) must be verified by demonstrating proficiency in the particular area(s) by written, oral, and/or practical examinations in accordance with established Cognitive/Psychomotor Objectives and Competency Check-offs of the Trinity Health System School of Medical Laboratory Science, conducted by the department section head and/or Program Director. If all objectives have been met with the maximum achievable competency, the student will be able to forgo the scheduled rotation in that particular department/section of the laboratory. This policy applies **ONLY** to those students employed by Trinity Health System and who meet the required competencies **BEFORE** beginning the *Professional Year of Study*, or at the discretion of the Program Director. **NO ADJUSTMENT WILL BE MADE TO REDUCE THE DIDACTIC PORTION OF THE PROGRAM.**

ADMISSION PROCESS AND SELECTION

All correspondence should be made to:

Constance L. Moore, MEd, MLS(ASCP)^{CM}
School of Medical Laboratory Science
Trinity Health System
4000 Johnson Rd.
Steubenville, OH 43952
740-264-8447 (phone)
740-264-8649 (fax)
constance.moore@commonspirit.org

Applicants who wish to be considered for admission into the program must submit the following documents to the program director by published date:

1. A completed and signed application form
2. An official transcript from all colleges attended
3. Three (3) recommendations from persons capable of evaluating the applicant (science or laboratory instructors (preferred), academic advisors, employers, etc.)
4. An Interview Request form

Qualified applicants will be contacted and scheduled for a personal interview. Interviews will be scheduled through published dates.

Candidates are evaluated according to established criteria by the admissions committee. Students' past academic records are weighed heavily in the selection process but are not the sole criteria for admission into the program. Prospective students will be exposed to the same interview process and letters of recommendation for each are weighed equally.

All students admitted into the program will be notified of their status by mail. Those accepted are requested to submit a written reply of their intent and a \$100.00 non-refundable deposit within 2 weeks of notification. Alternates are also selected and placed on a waiting list should a position become available. Once the deposit is received, the accepted students will receive a packet in the mail of all necessary forms and requirements to begin the program in August.

Students accepting a position must submit the following documents to the office of the program director by August 1:

1. A final official college transcript
2. A completed physical examination form
3. A completed immunization testing form, including tuberculosis screening (which may include IGRA)
4. Background Check
5. Proof of health and liability insurances
6. Technical standards/Essential Functions form

TUITION AND FEES

STUDENTS OF AFFILIATED COLLEGES/UNIVERSITIES WILL PAY TUITION TO THAT INSTITUTION ACCORDING TO THEIR POLICIES

THE FOLLOWING CHART DESCRIBES THE TUITION AND FEES FOR 4 + 1 STUDENTS

PAYMENT	USED FOR	DUE	REFUND POLICY
\$100.00	DEPOSIT	WITH LETTER OF ACCEPTANCE	NON-REFUNDABLE
\$1600.00	TUITION	~ AUGUST 1	WITHDRAWAL BEFORE CLASS BEGINS: 100% WITHDRAWAL AFTER CLASS BEGINS: 0%
\$100.00	LAB FEE	FIRST DAY OF CLASS	SAME AS FIRST TUITION PAYMENT
\$1600.00	TUITION	~ JANUARY 20	NON-REFUNDABLE

ALL students are responsible for purchasing their books for the entire *Professional Year of Study* by the first day of class. The textbook title, author, publisher, edition, and ISBN number will be communicated by the Program Director to the students within one month of the start of classes. It is imperative that students purchase the correct edition of the textbooks. All 4+1 students must purchase Liability Insurance for the year; information will be communicated by the PD in ample time for purchase.

In addition, all students are responsible for appropriate ***burgundy/wine colored plain scrubs***, professional ***vinyl shoes*** (sneakers are acceptable without bright colors/logos, or cloth/mesh bodies), and ***white lab coat***. ***Housing, meals, and transportation are the full responsibility of the student.*** The hospital offers a cafeteria and café, and free parking by the YMCA within walking distance of the building.