

Medical Technology

When it comes to the challenges and rewards of medicine and science, the medical technologist has the best of both worlds. Medical technologists, also called clinical laboratory scientists, work in all areas of the clinical laboratory including blood banking, immunology, chemistry, hematology, and microbiology. They perform a full range of laboratory tests including complex tests that detect cancer, HIV/AIDS, diabetes, and other diseases. They are also responsible for confirming the accuracy of test results and reporting laboratory findings to pathologists, physicians, nurses, and other health care professionals. The work of the medical technologist is so critical to the practice of modern medicine that it would be virtually impossible to provide good medical care without them.

Pursuing Medical Technology at Ohio State

The division invites applications from high school seniors who have been admitted to Ohio State and from collegiate students who are following the pre-professional curriculum outlined here. For high school seniors, student selection is based upon the quality of their application, high school class rank, and standardized test scores. High school seniors interested in this option should contact the Medical Technology Office at (614) 292-7303 for details on how to apply.

For collegiate applicants, college grade point average and performance in the pre-professional science and mathematics courses are considered. College students preparing to apply to this program should request more detailed information from the AMP Student Affairs Office at (614) 292-1706 or on the AMP web site at amp.osu.edu/MT.

The program offers three optional tracks of study: certification, medical science (non-certification), and MLT articulation. The certification track is designed for individuals who wish to become nationally certified medical technologists (clinical laboratory scientists) and work in clinical laboratory positions upon graduation. Graduates of this track are eligible to sit for national certifying examinations. This track is limited to a maximum enrollment of 30 per class.

The medical science program is a flexible track designed for individuals who wish to prepare for graduate school or post-baccalaureate professional programs such as medicine, veterinary medicine, dentistry, or law. Graduates of this track are not eligible to take national certifying examinations.

The MLT Articulation track allows MLT or CLT certified students to complete a bachelor's degree in two years.

The medical technology program is divided into pre-professional and professional course work. The pre-professional course work includes the following:

- Biology 113, Biological Principles
- Chemistry 121, 122, and 123, General Chemistry
- Chemistry 251 and 252, Organic chemistry and Biochemistry 511 OR Medical Biochemistry 311 and 312
- Microbiology 509, Basic Microbiology
- Molecular Genetics 500, General Genetics
- Math 150, Elementary Functions
- Statistics 145, Introduction to Statistical Practice
- GEC courses (45-50 credit hours)
 - English composition 5
 - Second writing course 5
 - Social sciences 10
 - Natural science 20
 - Arts and humanities 10

Refer to the GEC list for Allied Medical Professions, amp.osu.edu/current/genedcurriculum/index.cfm.

Not all courses listed above need to be completed before entry into the program; however, the majority of the courses listed above should be completed. Please call the Medical Technology department for more detailed information at (614) 292-7303.

The professional phase consists of six quarters of study. These quarters are made up almost entirely of medical technology courses. In their final quarter, certificate track students gain practical experience in the clinical laboratories of affiliated hospitals.

Admission to Medical Technology is based on a combination of overall academic achievement as well as academic performance in mathematics, chemistry, and biological science courses. Knowledge of the field and experience in the laboratory setting are helpful. Students are required to have a minimum cumulative point-hour ratio (CPHR) of 2.5; however, the average CPHR of the class most recently admitted was 3.2. All grades from all course work taken are considered in evaluating applicants.

Ohio State's program features the following:

- small class sizes with individual faculty attention
- departmental laboratory facilities and easy access to University Hospitals laboratories
- state-of-the-art computer facilities
- clinical affiliations in University Hospitals and other medical laboratories across the country
- typically better than average scores on the National Registry examination
- opportunities for research

Co-Curricular Opportunities

Ohio State offers many opportunities for students to learn and grow outside of the classroom. These range from cooperative education (co-op) and internships to study abroad programs to

For more information, check these web sites:

Medical Technology: amp.osu.edu/MT

Allied Medical Professions: amp.osu.edu

American Association for Clinical Chemistry: www.aacc.org

American Society for Clinical Laboratory Science:
www.ascls.org

American Society for Clinical Pathologists: www.ascp.org

American Society for Microbiology: www.asm.org

Curriculum Sample

This is a sample list of classes a student will take to pursue a BS in Medical Technology. Since university students need more than specific education in a narrow field, they also will take classes to complete the General Education Curriculum (GEC). The GEC will allow students to develop the fundamental skills essential to collegiate success across major programs. Course work options satisfying the GEC often come from a variety of academic areas of study allowing students to tailor their GEC toward their interests.

Note: This sample represents one of several possible paths to a degree in Medical Technology. Consult the departmental web site, amp.osu.edu/MT, for details on each specific track.

Freshman Year:

General Chemistry	15
English composition	10
Math	5
GEC Science	5
General Biology	5-10
AMP Survey	1
GEC courses	5-10
Total hours	46-56

Sophomore Year:

Molecular Genetics	5
Statistics	5
Organic Chemistry and Biochemistry or Medical Biochemistry	6-11
Microbiology (certification only)	5
GEC courses	20
Other Science	5
Total hours	46-51

Junior Year:

Medical Technology courses:	
Certification track	31
Non-certification track	19
GEC courses or electives:	
Certification track	13-15
Non-certification track	25
Total hours	44-46

Senior Year:

Medical Technology courses:	
Certification track (includes 14 hours clinical practice)	44
Non-certification track	16
Courses required for Graduate Programs:	
Non-certification track (electives, etc.)	30
Total hours	44-46

student organizations. Co-ops and internships place students in professional environments while they are Ohio State students. Ohio State offers more than 100 study abroad programs in 40 countries around the world. In addition, there are hundreds of student organizations on campus to meet the interests of a diverse student population. The following are opportunities related to medical technology:

- participation in class activities and AMP Student Council
- opportunities to join the Clinical Laboratory Science Club
- special enrichment (e.g., access to State Health Department Laboratories, Forensic Science Laboratory, field trips, etc.)
- options to live in Allied Medical Learning Community
- opportunities to attend professional conferences

Honors & Scholars Opportunities

Ohio State offers the Honors & Scholars programs to create an environment of intellectual support and stimulation within a close-knit community of high-ability undergraduate students. Through these programs, students have access to smaller classes, undergraduate research opportunities, close working relationships with faculty, priority scheduling, and unique housing options.

Honors & Scholars programs represent great opportunities to be part of a smaller community within a large university. Good candidates for these programs will receive additional information after admission to the university. Learn more about the Honors & Scholars program at honors-scholars.osu.edu.

Incoming students and students currently at Ohio State that have completed less than 40 credit hours and meet the Honors criteria are eligible for direct admission to our program. Please call the Medical Technology department for information at (614) 292-7303.

Career Prospects in Medical Technology

Most medical technologists work in hospital laboratories. Some work in all areas of the lab while others specialize and develop expertise in a single discipline. Those who choose to work in hospital laboratories frequently advance to become laboratory supervisors and managers. Medical technologists can also work in many other areas such as forensics, research, public health laboratories, pharmaceutical industries, medical sales, fertility clinics, environmental labs, doctors offices and information systems. A major in medical technology also provides excellent preparation for medical school, dentistry, optometry, and veterinary medicine.

Today, there are more jobs for medical technologists than people to fill those positions. Future long-term employment looks bright well into the future. Many positions are offering job sign-on bonuses ranging from \$1,000-\$5,000.

Revised September 2008. For the most up-to-date information on the medical technology program, please visit amp.osu.edu/MT.

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