What is Medical Lab Science?

The Medical Laboratory Scientist performs testing to assist physicians in patient diagnosis and treatment as well as disease monitoring and prevention. More than 70% of all medical decisions rely on the results gathered by a clinical lab scientist. Laboratory testing encompasses such disciplines as clinical chemistry, hematology, microbiology, immunology, immunohematology, and molecular biology.

The Medical Laboratory Scientist uses sophisticated biomedical instrumentation and technology, computers, and manual methods to provide accurate results used in detecting cancer, heart attacks, diabetes, bacterial identification and antibiotic sensitivity, anemia, drugs of abuse, and even determination of blood and organ compatibility for transfusion or transplant.

Other duties include collection, processing and analysis of biological specimens, performing laboratory procedures, maintaining laboratory instruments, and relating lab findings to common diseases or conditions. Medical laboratory scientists have a more extensive theoretical knowledge base so these professionals not only perform the testing, but also evaluate/interpret the results, integrate data, problem solve, consult, conduct research, and develop new test methods.

Generally the Medical Laboratory Scientist has better compensation than does a clinical laboratory technician, with greater opportunity for advancement into management with appropriate experience.

The Bureau of Labor Statistics of the US Department of Labor projects that medical laboratory scientists will increase in number by 10-20% through the year 2020. The average starting salaries in the Dayton area are $50,000-$55,000/yr. Currently there is a shortage of qualified laboratory personnel which is expected to get worse. For every two laboratorians entering the field, there are seven leaving.

If a hospital, physician’s office, or medical laboratory is not the environment you prefer, MLS professionals find challenging employment in a variety of arenas. From industrial, research, and public health laboratories, to forensic or pharmaceutical laboratories, to technical sales, the MLS professional’s analytical, scientific, and technical skills are valuable assets with a diversity of application.
Would you like an excellent preparation for medical school, veterinary medicine, dental school or graduate studies?

Try MLS as a major! The intense coursework and laboratory training is one of the best ways to prepare for post-baccalaureate programs in any area of healthcare or natural science. In addition, since our graduates have almost guaranteed employment, they can work in the field while pursuing graduate school.

If you don’t intend to pursue education beyond the baccalaureate level, MLS prepares you for a challenging career as a laboratory professional. You can’t go wrong with this major.

Clinical Affiliates

- Atrium Medical Center in Middletown
- Children’s Hospital in Cincinnati
- Dayton Children’s Medical Center
- Clinton Memorial Hospital in Wilmington
- Compunet Clinical Labs in Dayton (Miami Valley Hospital, Miami Valley South, Sandridge Reference Lab)
- Good Samaritan Hospital in Dayton
- Grandview Medical Center
- Kettering Medical Center in Dayton
- McCullough-Hyde Hospital in Oxford
- Reid Hospital in Richmond, Indiana
- Springfield Regional Hospital
- Veteran’s Administration Medical Center in Dayton
About the MLS Program…

This a twelve month program consisting of didactic coursework and rotations at affiliated laboratories. The program is accredited by the National Accrediting Agency of Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont, Ill. 60018. Upon successful completion of the curriculum, students are eligible to take a national certification examination given by the American Society for Clinical Pathology (ASCP) Board of Certification.

Currently, the program begins in May with didactic and student laboratory exercises in the basic clinical laboratory sciences. Students are on campus five days a week, generally taking one course at a time. Beginning in September, students spend four days per week at assigned lab rotations. Six weeks are spent in each of the following departments of the hospital clinical laboratory: chemistry, hematology, microbiology, and transfusion services (blood bank). During this time, students return to campus every Friday for advanced lectures and case studies in all the major laboratory sciences.

The clinical year includes 39 semester hours of coursework spread over three semesters. Students pay the current WSU full-time tuition. There are scholarships available to students who meet eligibility requirements.

Before beginning the program, students must have a physical examination and provide proof of required immunizations. Students must carry medical insurance and professional liability insurance during the clinical year.

**Admission Requirements**

- Apply before November 1 of the calendar year preceding May admission
- three references
- minimum overall GPA of 2.7 and a minimum grade of C in all science courses
- Students may enter after three years of an approved clinical laboratory science program or with a B.S. in science
- International students must pass an oral proficiency test

We strongly encourage prospective students to shadow a clinical lab scientist.

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**Medical Laboratory Science Program**

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