

MEDICAL LABORATORY SCIENCE (MS)

Medical Laboratory Scientists are at the heart of a patient-centered healthcare team, managing labs and running tests that will inform diagnosis and treatment.

A career in medical laboratory science combines the challenges of medicine, pathology, basic sciences, and clinical laboratory sciences. Students receive training in major disciplines of laboratory science, including Chemistry, Hematology, Hemostasis, Immunology, Immunohematology, Microbiology, Molecular Diagnostics, and Body Fluid Analysis. Using state-of-the-art biomedical instruments, critical thinking skills, and molecular techniques, medical laboratory scientists are the detectives of healthcare. Loyola's two-year Master of Science in Medical Laboratory Science will give you the tools you need to enter this low-profile, but critically important, aspect of the health care field.

This degree is geared towards those holding a baccalaureate degree in an area other than Medical Laboratory Science looking to expand their scientific career. Upon completion of the M.S. in Medical Laboratory Science degree, students will be eligible to sit for national Medical Laboratory Science certification exams.

The Loyola University Chicago Medical Laboratory Science program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). They can be contacted at: National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road, Suite 720 Rosemont, IL 60018; Ph: 773-714-8880; Fax: 773-714-8886; Email: info@NAACLS.org

Related Programs

Master's

- Clinical Research Methods and Epidemiology (MS) (<https://catalog.luc.edu/graduate-professional/health-sciences/clinical-research-methods-epidemiology-ms/>)
- Healthcare Administration (MHA) (<https://catalog.luc.edu/graduate-professional/health-sciences/healthcare-administration-mha/>)

Combined

- Medicine/Public Health (MD/MPH) (<https://catalog.luc.edu/graduate-professional/dual-degree-programs/medicine-public-health-md-mph/>)

Curriculum

The MS in Medical Laboratory Science program accepts students for fall semester enrollment and is designed to be completed within five continuous semesters of study over the course of two years.

The MS in Medical Laboratory Science degree accepts students for fall semester enrollment and is designed to be completed only on a full-time basis within five continuous semesters of study over the course of two years.

Code	Title	Hours
MLS 401	Laboratory Fundamentals	2
MLS 410	Clinical Immunology	2
MLS 415	Urinalysis and Body Fluids	2
MLS 420	Molecular Diagnostics	2
MLS 430	Clinical Chemistry I	3

MLS 440	Clinical Chemistry II	2
MLS 450	Hematology	4
MLS 455	Hemostasis	2
MLS 460	Immunohematology	5
MLS 465	Laboratory Leadership I	1
MLS 466	Laboratory Leadership II	1
MLS 467	Laboratory Leadership III	1
MLS 470	Bacteriology and Virology	5
MLS 475	Clinical Parasitology and Mycology	2
MLS 481	Clinical Practice in Hematology	3
MLS 482	Clinical Practice in Chemistry	3
MLS 483	Clinical Practice in Immunohematology	3
MLS 484	Clinical Practice in Hemostasis and Body Fluids	1-2
MLS 485	Clinical Practice in Microbiology	3
MLS 486	Clinical Practice - MLS Special Topics	1-2
MLS 490	MLS Educational Practice and Review	2
MLS 495	Medical Laboratory Science Capstone	1-2

Optional Elective

BEHL 405	Research Ethics	
Total Hours		52

Suggested Sequence of Courses

The below sequence of courses is meant to be used as a suggested path for completing coursework. An individual student's completion of requirements depends on course offerings in a given term as well as the start term for a major or graduate study. Students should consult their advisor for assistance with course selection.

Course	Title	Hours
Year 1		
Fall		
MLS 401	Laboratory Fundamentals	2
MLS 410	Clinical Immunology	2
MLS 415	Urinalysis and Body Fluids	2
MLS 430	Clinical Chemistry I	3
MLS 450	Hematology	4
Hours		13
Spring		
MLS 440	Clinical Chemistry II	2
MLS 460	Immunohematology	5
MLS 465	Laboratory Leadership I	1
MLS 470	Bacteriology and Virology	5
Hours		13
Summer		
MLS 420	Molecular Diagnostics	2
MLS 455	Hemostasis	2
MLS 466	Laboratory Leadership II	1
MLS 475	Clinical Parasitology and Mycology	2
Hours		7
Year 2		
Fall		
MLS 481	Clinical Practice in Hematology	3
MLS 482	Clinical Practice in Chemistry	3

MLS 483	Clinical Practice in Immunohematology	3
MLS 484	Clinical Practice in Hemostasis and Body Fluids	1-2
Optional Elective		
BEHL 405	Research Ethics	
Hours		10
Spring		
MLS 467	Laboratory Leadership III	1
MLS 485	Clinical Practice in Microbiology	3
MLS 486	Clinical Practice - MLS Special Topics	1-2
MLS 490	MLS Educational Practice and Review	2
MLS 495	Medical Laboratory Science Capstone	1-2
Hours		9
Total Hours		52

Graduate & Professional Standards and Regulations

Students in graduate and professional programs can find their Academic Policies in Graduate and Professional Academic Standards and Regulations (<https://catalog.luc.edu/academic-standards-regulations/graduate-professional/>) under their school. Any additional University Policies supersede school policies.

Learning Outcomes

- Competencies to work as an entry-level medical laboratory scientist in accordance with established laboratory procedures.
- Apply critical thinking skills to evaluate and interpret clinical data.
- Strong written and verbal communication skills to serve the needs of patients, the health care team, scientific peers, and the general public