

Medical Laboratory Science, B.S.

The Carver College of Medicine partners with various programs to offer the major in medical laboratory science (MLS). The programs are fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences. All graduates are eligible for national certification examinations in medical laboratory science.

Undergraduate study in medical laboratory science is guided by the academic rules and procedures outlined in the Carver College of Medicine section of the Catalog. Because the Carver College of Medicine partners with affiliated programs for the medical laboratory science major, students are not held to the University of Iowa in-residence requirement.

Affiliated Programs

- Allen College: partnership effective until June 2023 (Students are no longer being accepted into the Allen College MLS program as part of an active affiliation agreement with the University of Iowa.)
- Mercy College of Health Sciences

Expenses

Students are responsible for all tuition, textbooks, and other associated expenses during their time in this program.

Requirements

The Bachelor of Science with a major in medical laboratory science (MLS) requires a minimum of 124 s.h., including 84 s.h. of preparatory study and 40 s.h. in the professional (clinical) program, which consists of 11 months of didactic and practical instruction, depending on which affiliated program a student attends. Acceptance into the affiliated programs is competitive; see specific program websites for admission requirements.

Students in the Mercy College of Health Sciences MLS program in Des Moines must maintain a cumulative g.p.a. of at least 2.50 in all courses for the major and in all University of Iowa courses. They also must complete the College of Liberal Arts and Sciences GE CLAS Core.

Students in the Allen College MLS program must maintain a cumulative g.p.a. of at least 2.70 in all courses for the major and in all University of Iowa courses. They also must complete the College of Liberal Arts and Sciences GE CLAS Core.

Bachelor of Science students who have completed all preparatory study (years one through three) begin the fourth-year professional program which consists of both didactic lectures and clinical rotations. Students who successfully complete the professional program graduate with a B.S. degree in medical laboratory science awarded from the University of Iowa.

To learn more about the professional program, visit the medical laboratory science pages on the Allen College or Mercy College of Health Sciences websites.

Preparatory Study

Allen College: Prerequisites for Admission to the Major

Students are no longer being accepted into the Allen College MLS program as part of an active affiliation agreement with the University of Iowa.

Students must complete the following coursework before they may be admitted to the major in medical laboratory science. They must earn a grade of C-minus or higher in all prerequisite courses.

Code	Title	Hours
All of these:		
BIOL:1411- BIOL:1412	Foundations of Biology - Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I-II	8
CHEM:2210	Organic Chemistry I	3
MICR:2157- MICR:2158	General Microbiology - General Microbiology Laboratory	5
PSY:1001	Elementary Psychology	3
RHET:1030	Rhetoric	4-5
SOC:1010	Introduction to Sociology	3-4
One of these options:		
HHP:1100 & HHP:1110	Human Anatomy - Human Anatomy Laboratory (both courses)	4
HHP:1150	Human Anatomy Lecture with Lab	4
HHP:1300 & HHP:1310	Fundamentals of Human Physiology - Human Physiology Laboratory (both courses)	4
HHP:1350	Fundamentals of Human Physiology with Laboratory	4
HHP:3115	Anatomy for Human Physiology with Lab	5
HHP:3550	Human Physiology with Laboratory	5
One of these:		
BMB:3110	Biochemistry	3
CHEM:2220	Organic Chemistry II	3
One of these:		
MATH:1005	College Algebra	4
MATH:1020	Elementary Functions	4
MATH:1440	Mathematics for the Biological Sciences	4
One of these:		
STAT:1020/ PSQF:1020	Elementary Statistics and Inference	3
STAT:3510/ IGPI:3510	Biostatistics	3

Mercy College of Health Sciences: Prerequisites for Admission to the Major

Students must:

- achieve a cumulative g.p.a. of at least 2.50 on a 4.00 scale in all college-level coursework; and
- achieve a cumulative g.p.a. of at least 2.50 on a 4.00 scale in all college-level coursework in science, which includes biology, microbiology, zoology, chemistry, physics, mathematics, statistics, and related courses.
- earn a grade of C (not C-minus) or higher in all required courses.

Students must complete the following coursework before they may be admitted to the major in medical laboratory science.

Code	Title	Hours
All of these:		
BIOL:1411- BIOL:1412	Foundations of Biology - Diversity of Form and Function	8
CHEM:1110 & CHEM:1120	Principles of Chemistry I-II	8
CHEM:2210 & CHEM:2220	Organic Chemistry I-II	6
CHEM:2410	Organic Chemistry Laboratory	3
MATH:1005	College Algebra	4
MICR:2157- MICR:2158	General Microbiology - General Microbiology Laboratory	5
Select from these to reach a total of 16 s.h. in biology coursework:		
HHP:1150	Human Anatomy Lecture with Lab	4
HHP:1300 & HHP:1310	Fundamentals of Human Physiology - Human Physiology Laboratory (both courses)	4
HHP:1350	Fundamentals of Human Physiology with Laboratory	4
HHP:3115	Anatomy for Human Physiology with Lab	5
HHP:3550	Human Physiology with Laboratory	5
MICR:3147	Immunology and Human Disease	3

Coursework taken to meet the biology and chemistry requirements completed seven or more years before application may require updating. This is determined by the program chair.

Questions about the requirements should be directed to the Mercy College of Health Sciences.

Fourth Year: Professional Program

Students must successfully complete the professional program requirements through one of the MLS programs in order to graduate with the B.S. degree in medical laboratory science.

Admission

Admission to the fourth-year medical laboratory science (MLS) professional programs are competitive; enrollment may be limited. Students must apply to the MLS program directly.

Most students apply during fall of their third year and begin the professional program following that year.

Before beginning the professional program, students must complete all prerequisites, including the College of Liberal Arts and Sciences GE CLAS Core requirements, and must earn at least 84 s.h. of college credit. They satisfy the English and public speaking prerequisite requirements by fulfilling the GE CLAS Core Rhetoric requirement. Applicants must have a cumulative g.p.a. of at least 2.50 both overall and in science coursework for admission into the Mercy College of Health Sciences program in Des Moines or 2.70 for the Allen College program. They must satisfy any English as a Second Language (ESL) requirements specified by the University of Iowa before beginning the professional program.

Students should consult with a Medical Laboratory Science Program advisor as early as possible to plan preclinical studies that meet all requirements.

Career Advancement

The demand for medical laboratory scientists is much greater than the number of people qualified to fill the positions, so graduates have numerous employment opportunities nationwide. They consistently find employment before or very soon after graduation.

Opportunities for advancement include positions such as lab manager, computer specialist, technical specialist, or sales/instrument representative. An advanced degree in basic sciences, medicine, hospital administration, or business can expand earning potential.

Graduates often enjoy diverse work environments, including labs in hospitals, research institutions, public health facilities, forensic units, pharmaceutical companies, or working in the armed forces. They have an impact in the field as integral members of health care teams, providing information essential for the treatment and prevention of disease.

The Pomerantz Career Center offers multiple resources to help students find internships and jobs.