Medical Laboratory Science, BS

The Carver College of Medicine partners with various programs to offer the major in medical laboratory science. 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

- Mercy College of Health Sciences
- St. Luke’s Hospital/UnityPoint Health

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 requires a minimum of 124 s.h., including 84–92 s.h. of preparatory study and 32–40 s.h. in the professional (clinical) program, which consists of 11 months of didactic and practical instruction depending on the program in which a student enrolls. Acceptance into the affiliated programs is competitive; see specific program websites for admission requirements.

Students in the Mercy College of Health Sciences program in Des Moines must maintain a cumulative grade-point average (GPA) of at least 2.50 in all college-level coursework, achieve a cumulative GPA 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; and earn a grade of C (not C-minus) or higher in all required courses.

Students in the St. Luke’s program will need an overall GPA of 2.50, with a GPA of 2.50 in required science courses. They also must complete the College of Liberal Arts and Sciences GE CLAS Core.

Students in the St. Luke’s program will need an overall GPA of 2.50, with a GPA of 2.50 in required science 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 BS 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 Mercy College of Health Sciences or St. Luke’s Hospital/UnityPoint Health websites.

Preparatory Study

Mercy College of Health Sciences: Preparatory Study for Admission to the Major

Students must:

- achieve a cumulative GPA of at least 2.50 on a 4.00 scale in all college-level coursework;
- achieve a cumulative GPA 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; and
- 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.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL:1411-1412</td>
<td>Foundations of Biology - Diversity of Form and Function</td>
<td>8</td>
</tr>
<tr>
<td>CHEM:1110 &amp; CHEM:1120</td>
<td>Principles of Chemistry I-II</td>
<td>8</td>
</tr>
<tr>
<td>CHEM:2210 &amp; CHEM:2220</td>
<td>Organic Chemistry I-II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM:2410</td>
<td>Organic Chemistry Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>MATH:1005</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MICR:2157-2158</td>
<td>General Microbiology - General Microbiology Laboratory</td>
<td>5</td>
</tr>
</tbody>
</table>

One of these:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHP:1300 &amp; HHP:1310</td>
<td>Fundamentals of Human Physiology - Human Physiology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>HHP:3115</td>
<td>Anatomy for Human Physiology with Lab</td>
<td>5</td>
</tr>
<tr>
<td>HHP:3550</td>
<td>Human Physiology with Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>MICR:3147</td>
<td>Immunology and Human Disease</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

St. Luke’s Hospital/UnityPoint Health: Preparatory Study for Admission to the Major

Students must:

- achieve an overall GPA of 2.50,
- achieve a GPA of 2.50 in required science courses, and
- have earned 90 s.h. of college credit.

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

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHP:1300 &amp; HHP:1310</td>
<td>Fundamentals of Human Physiology - Human Physiology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>HHP:3115</td>
<td>Anatomy for Human Physiology with Lab</td>
<td>5</td>
</tr>
<tr>
<td>HHP:3550</td>
<td>Human Physiology with Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>MICR:3147</td>
<td>Immunology and Human Disease</td>
<td>3</td>
</tr>
</tbody>
</table>
### Course # | Title | Hours
--- | --- | ---
One of these: | MATH:1005 College Algebra (or a higher numbered math course) | 4
A statistics course | | 3-4
One of these: | HHP:1100 & HHP:1110 Human Anatomy - Human Anatomy Laboratory (both courses) | 4
HHP:1300 & HHP:1310 Fundamentals of Human Physiology - Human Physiology Laboratory (both courses) | 4
HHP:3115 Anatomy for Human Physiology with Lab | 5
HHP:3550 Human Physiology with Laboratory | 5
All of these: | BIOL:1411 Foundations of Biology | 4
BIOL:2512 Fundamental Genetics or BIOL:3713 Molecular Genetics | 4
BMB:3110 Biochemistry | 3
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
Additional biology coursework to total 16 s.h. | | 3
Additional chemistry coursework to total 16 s.h. | | 2

Applicants who have met the minimal preclinical requirements five or more years before applying to the program must update their academic preparation in a manner acceptable to the National Accreditation Agency for Clinical Laboratory Sciences (NAACLS) and the program. For these applicants, current clinical laboratory experience will be taken into consideration.

Questions about the requirements should be directed to St. Luke’s Hospital/UnityPoint Health.

### Fourth Year: Professional Program

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

### Admission

Admission to the fourth-year medical laboratory science professional programs are competitive; enrollment may be limited. Students must apply to the medical laboratory science program directly. Most students apply during the 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 for the Mercy Des Moines program or at least 90 s.h. for the St. Luke’s program. Students satisfy the English and public speaking prerequisites by fulfilling the GE CLAS Core Rhetoric requirement. Applicants must have a cumulative grade-point average 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 the St. Luke’s Hospital Cedar Rapids Medical Laboratory Science 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 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.