Medical Laboratory Science

Site coordinator
- Norma Ward (Pathology)

Undergraduate major: medical laboratory science (B.S.)

Faculty: http://www.medicine.uiowa.edu/Pathology/people/

Web site: http://www.medicine.uiowa.edu/pathology/education/mlsp/mlsp/

Medical laboratory scientists and medical technologists perform the laboratory tests that provide physicians with information vital for accurate diagnosis and proper treatment of disease. They are in demand in hospital, private, and government laboratories; clinics; physicians’ offices; and industrial, pharmaceutical, biological, and environmental research laboratories. Medical laboratory scientists and medical technologists are highly skilled health team members who use a battery of sophisticated procedures and instruments in their work and who possess specialized knowledge and skills acquired through completion of a formal program of academic and clinical study.

Undergraduate Program of Study

- Major in medical laboratory science (Bachelor of Science)

The Carver College of Medicine partners with Allen College in Waterloo, Iowa, to offer the major in medical laboratory science. The program is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences. All graduates are eligible for national certification examinations in medical laboratory science.

The Medical Laboratory Science Program offers a bachelor's degree; it does not offer a certificate.

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

Bachelor of Science

The Bachelor of Science with a major in medical laboratory science 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 and clinical rotations. Students must maintain a 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 General Education Program.

Bachelor of Science students who have completed all preparatory study (years one through three) begin the fourth-year professional program in late August with online didactic lectures. They attend three separate days of laboratory skills instruction on the Allen College campus, and in mid-November they begin clinical rotations in the laboratories of University of Iowa Hospitals and Clinics and the Iowa City Veterans Affairs Medical Center. Students who successfully complete the 11-month professional program graduate with a Bachelor of Science from the University of Iowa and a Bachelor of Health Science from Allen College.

Professional program requirements are listed below, under “Fourth Year: Professional Program.” To learn more about the professional program, visit Medical Laboratory Science (MLS) on the Allen College web site.

As part of their preparatory study, students must complete specific courses that are prerequisites for admission to the major.

PREPARATORY STUDY: PREREQUISITES FOR ADMISSION TO THE MAJOR

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

All of these:
- BIOL:1411-BIOL:1412 Foundations of Biology - Diversity of Form and Function 8 s.h.
- CHEM:1110 & CHEM:1120 Principles of Chemistry I-II 8 s.h.
- CHEM:2210 Organic Chemistry I 3 s.h.
- MICR:2157 General Microbiology 5 s.h.
- PSY:1001 Elementary Psychology 3 s.h.
- RHET:1030 Rhetoric 4-5 s.h.
- SOC:1010 Introduction to Sociology 3-4 s.h.

One of these sequences:
- HHP:1100 & HHP:1110 Human Anatomy - Human Anatomy Laboratory 4 s.h.
- HHP:1300 & HHP:1310 Fundamentals of Human Physiology - Human Physiology Laboratory 4 s.h.

One of these:
- BIOC:3110 Biochemistry 3 s.h.
- CHEM:2220 Organic Chemistry II 3 s.h.

One of these:
- MATH:1005 College Algebra 4 s.h.
- MATH:1020 Elementary Functions 4 s.h.
- MATH:1440 Mathematics for the Biological Sciences 4 s.h.

One of these:
- STAT:1020/PSQF:1020 Elementary Statistics and Inference 3 s.h.
- STAT:3510 Biostatistics 3 s.h.

FOURTH YEAR: PROFESSIONAL PROGRAM

Students complete 40 s.h. in the following professional program requirements through Allen College.

All of these:
- PATH:4150 Advanced Laboratory Practice 2 s.h.
- PATH:4151 MLS Program Registration 0 s.h.
- PATH:4152 MLS Theory, Application, and Correlation 3 s.h.
- PATH:4154 Clinical Chemistry I 3 s.h.
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PATH:4155 Clinical Chemistry II 3 s.h.
PATH:4156 Clinical Hematology I 4 s.h.
PATH:4157 Clinical Hematology II 3 s.h.
PATH:4158 Clinical Microbiology I 4 s.h.
PATH:4159 Clinical Microbiology II 3 s.h.
PATH:4160 Clinical Immunology 1 s.h.
PATH:4162 Clinical Immunohematology I 3 s.h.
PATH:4163 Clinical Immunohematology II 3 s.h.
PATH:4164 Phlebotomy for Clinical Laboratory Science 1 s.h.
PATH:4166 Urine and Body Fluid Analysis 2 s.h.
PATH:4170 Clinical Laboratory Management I 2 s.h.
PATH:4171 Clinical Laboratory Management II 2 s.h.
PATH:4172 Molecular Biology Methods 1 s.h.

Admission

Admission to the medical laboratory science professional program (fourth year) is competitive; enrollment may be limited. Applications are reviewed twice a year in October and February. Applicant review and admission will continue on a monthly basis until the program is full. Students must apply to Allen College. Most students apply during fall of their third year and begin the professional program the following August. Applications are accepted until the class is filled.

Before beginning the professional program, students must complete all prerequisites, including the College of Liberal Arts and Sciences General Education Program requirements, and must earn at least 84 s.h. of college credit. They satisfy the English and public speaking prerequisite requirements by fulfilling the General Education Program's Rhetoric requirement. Applicants must have a cumulative g.p.a. of at least 2.70 both overall and in science course work. They must satisfy any English as a Second Language 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.

Expenses

Students are responsible for buying textbooks and paying tuition and student fees. The Medical Laboratory Science Program provides laboratory coats for professional program students.