

Bachelor of Science (BS)

Medical Laboratory Science

Medical laboratory science is a branch of medicine that uses laboratory analyses to diagnose and treat disease. Laboratory analyses are performed on blood, body fluids and tissue. Physicians use these laboratory results to determine the presence, extent and cause of disease in their patients. The role of the medical laboratory scientist is critical since the analyses must be performed quickly and reliably.

The medical laboratory scientist's training is versatile allowing some to pursue other opportunities in medicine, health law, health care administration, dentistry, veterinary science, public policy development and medical writing. Students who desire a challenging and vital profession in the health sciences should consider medical laboratory science.

Medical Laboratory Science students will...

- Develop lab skills in chemistry, biology, and math in the context of a broad university education.
- Study in modern learning environment provided by the recently renovated Magill Hall of Science.
- Complete one-year of clinical study at a clinical program that holds accreditation status from The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).
- Be eligible for national certification as a medical laboratory scientist upon completion of the B.S. degree.
- Have excellent employment opportunities upon completion of the program.

Career Planning

Career preparation is part of the mission of Southeast. 100% of programs offer our students an internship, study-abroad program, clinical opportunity, student teaching or research internship.

The demand for medical laboratory scientists is likely to stay high in the immediate future. Most medical laboratory scientists work in hospitals, but job opportunities also exist in physicians' laboratories, clinics, commercial laboratories, research facilities, public health centers, veterinary laboratories, higher education, and the armed forces. During the past ten years, all Southeast graduates from this program have found employment in the field and many of these have had employment offers prior to graduation.

The Office of Career Services in Academic Hall 057 can provide students with professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities, and more.

Clinical Affiliates

- Cox Health
- North Kansas City Hospital
- Owensboro Medical Health System
- Mercy Hospital Joplin
- Mercy Hospital St. Louis
- Southeast Health

Transfer and Dual Credit Students

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at semo.edu/transfercredit.

To learn more
Office of Admissions
(573) 651-2590
admissions@semo.edu
semo.edu

To explore
the College of Science,
Technology, Engineering and
Mathematics online, visit
semo.edu/stem

For advising
Center for Academic Advising
semo.edu/advising

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This is a guide based on the 2018-2019 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

CURRICULUM CHECKLIST

"Critical Courses" are italicized and bolded. Data shows that students who have completed this course in the first two years and have earned the noted grade are most likely to complete this program of study.

Required Courses:

- ___ BI173 Cell & Organismal Biology (4)
- ___ BI283 Genetics (4)
- ___ **BI310 General Microbiology (4)**
- ___ BI442 Immunology (3)
- ___ BI543 Pathogenic Microbiology (2)
- ___ BI544 Pathogenic Microbiology Laboratory (1)
- ___ **CH185 General Chemistry (5)**
- ___ **CH186 Foundations of Inorganic Chemistry (3)**
- ___ CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- ___ CH271 Foundations of Analytical Chemistry (5)
- ___ **CH340 Essentials of Organic Chemistry (5)**
- ___ CH531/UI331 Foundations of Biochemistry (3)
- ___ MA116 Precalculus A (3)
- ___ MA223 Elementary Probability and Statistics (3)

Choose one course:

- ___ BS332 Human Physiology (3)
- ___ ZO331 Animal Physiology (3)

Clinical Year Program – 30 hours required - off campus

- ___ MT300 Clinical Chemistry (8-10)
- ___ MT301 Clinical Microscopy (1-2)
- ___ MT302 Hematology and Coagulation (6-8)
- ___ MT303 Serology Immunology (2-4)
- ___ MT304 Clinical Microbiology (7-9)
- ___ MT305 Blood Bank Immunohematology (3-4)
- ___ MT306 Special Topics in Medical Technology (1-4)

University Studies Requirements – some requirements may be fulfilled by coursework in major program

- Social and Behavioral Sciences – 3 hours
- Constitution requirement – 3 hours
- US History requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)

SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	UI100	3	BI173	4
	EN100	3	CH186	3
	CH185/CH085/CH005	5	CH187	2
	MA116	3	University Studies	3
	University Studies	3	University Studies	3
	Total	17	Total	15
Milestone: maintain 2.0 cumulative GPA				
SECOND YEAR	BI283	4	BI310	4
	BS332 or ZO331	3	University Studies	3
	CH271	5	University Studies	3
	CH340	5	University Studies	3
	Total	17	Total	13
Milestone: maintain 2.0 cumulative GPA				
THIRD YEAR	BI442	3	BI543	2
	MA223	3	BI544	1
	UI331 or CH531	3	University Studies	3
	University Studies	3	Elective	3
	University Studies	3	Elective	3
	Total	15	Total	13
Milestone: maintain 2.0 cumulative GPA				
FOURTH YEAR	Clinical Year Program	15	Clinical Year Program	15
	Total	15	Total	15
Milestone: maintain 2.0 cumulative GPA				

A "Milestone" signifies a significant stage for a student in the completion of a degree.

Degree requirements for all students: a minimum of 120 credit hours, completion of University Studies program, completion of 39 senior division hours (300-599), Writing Proficiency Exam (WP003), and completion of the Measure of Academic Proficiency and Progress (MAP) at the senior level. Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

A minimum 2.0 GPA in the major and overall are required to graduate with a BS degree.