

Bachelor of Science (BS)

Medical Technology

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 Technology 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. In fact, more than 90% of Southeast students participate in internships, clinical opportunities, student teaching, research assistantships, and study abroad. 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.

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

Demonstrated Career Proficiency is a Requirement of all Southeast Students		
CL001/CL002	First Semester	Complete the FOCUS2 assessment and develop a Career Action Plan.
CL003	Junior Year	Students gain information about career planning and job searching resources.
CL004	Senior Year	Students demonstrate advanced proficiency by identifying a position in their field, developing a cover letter, and tailoring a resume for the position. Materials are critiqued to ensure preparedness for a successful job search.

Clinical Affiliates

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

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

To explore the College of Science, Technology, and Agriculture online, visit
www.semo.edu/costa

For advising
College of Science, Technology and Agriculture
Advising Center (573) 651-5930
costaadvising@semo.edu
www.semo.edu/costa/advising

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This is a guide based on the 2015-2016 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 DegreeWorks 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:

- ___ **BI200 Microbiology (3)**
- ___ BI381 Molecular Genetics (3)
- ___ BI442 Immunology (3)
- ___ BI543 Pathogenic Microbiology (2)
- ___ BI544 Pathogenic Microbiology Laboratory (1)
- ___ **CH185 General Chemistry (5) (Physical Systems)**
- ___ **CH186 Foundations of Inorganic Chemistry (3)**
- ___ CH187 Inorganic Chemistry and Qualitative Analysis Laboratory (2)
- ___ CH271 Foundations of Analytical Chemistry (5)
- ___ **CH341 Foundations of Organic Chemistry (4)**
- ___ CH342 Organic Chemistry Laboratory I (1)
- ___ CH531/UI331 Foundations of Biochemistry (3)
- ___ MA134 College Algebra (3) (Logical Systems)
- ___ MA223 Elementary Probability and Statistics (3)

Choose one course:

- ___ BI154 Genetics and Cellular Biology (4)
- ___ BS103 Human Biology (3)
- ___ BS108 Biology for Living (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 (not already listed above):

UI100 First Year Seminar, EN100 English Composition, Artistic Expression, Written Expression, Oral Expression, Literary Expression, Behavioral Systems, Living Systems*, Development of a Major Civilization, Economic Systems, Political Systems, Social Systems, one IU/UI3XX**, and one UI4XX.

*** Note: Living Systems required if not taken as part of major required courses. Two IU/UI3XX courses are required if CH531 Foundations of Biochemistry is taken rather than UI331 Foundations of Biochemistry.

SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	UI100	3	BS103/BS108/BI154	3-4
	EN100	3	CH186	3
	CH185/CH085/CH005	5	CH187	2
	MA134	3	Social Systems	3
	Artistic Expression	3	Written Expression	3
	Total	17	Total	14-15
Milestone: maintain 2.0 cumulative GPA				
SECOND YEAR	BI200	3	CH341	4
	BI381	3	CH342	1
	CH271	5	Literary Expression	3
	BS332 or ZO331	3	Develop of a Major Civil.	3
	Economic Systems	3	Oral Expression	3
	Total	17	Total	14
Milestone: maintain 2.0 cumulative GPA				
THIRD YEAR	BI442	3	BI543	2
	MA223	3	BI544	1
	UI331 or CH531	3	IU/UI3XX	3
	Behavioral Systems	3	UI4XX	3
	Political Systems	3	Electives	3-4
	Total	15	Total	12-13
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, career proficiencies (CL001-004), Writing Proficiency Exam (WP003), and completion of the Measure of Academic Proficiency and Progress (MAPP) at the senior level.

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

Refer to the Undergraduate Bulletin or DegreeWorks for additional graduation requirements (i.e. minimum GPA and coursework) for your program of study.