



Experience
Southeast...Experience
Success

DEPARTMENT OF CHEMISTRY

Bachelor of Science

MEDICAL TECHNOLOGY MAJOR

The Medical Technology program at SEMO is a cooperative program. The student takes a three year pre-medical technology program, one year of which must be at SEMO, and then applies to a NAACLS accredited clinical program for the fourth year. The student must fulfill all prerequisites as listed in the University Catalog before beginning the clinical year of study.

Employment is found in hospitals, clinics, industry, and sometimes medical research laboratories. Entrance to clinical training programs is competitive. Job opportunities are excellent. There is currently a nationwide shortage of medical technologists.

FACULTY ADVISORS:

Dr. Bjorn Olesen, Program Coordinator; (573-651-2369), Dr. Philip Crawford
(573-651-2166)

CAREER OPPORTUNITIES:

Medical Technologist (MT); Laboratory Technician; Research Assistant.

CERTIFICATION AND JOB PLACEMENT:

After completing a B.S. in Medical Technology, students are eligible to sit for a credentialing exam offered by either the American Society of Clinical Pathologists or by the National Credentialing Agency. Employment opportunities in Medical Technology continue to be good. During the past ten years, all Southeast students completing the clinical program have found employment in the field. Starting salaries are around \$35,900 in Cape Girardeau (Fall 2006). Higher salaries may be obtained in larger metropolitan areas.

HIGH SCHOOL PREPARATION FOR MAJOR:

Ideal: 4 units of English, 5 units of Science (Biology, Chemistry and Physics) and math through Trigonometry and Pre-calculus.

MEDICAL TECHNOLOGY HANDBOOK:

The Medical Technology handbook is available on the web and has links to all of our affiliated programs. You can access the page in two ways: (1) you can use the link from Dr. Olesen's web page, <http://cstl-csm.semo.edu/Olesen/>, or (2) go to the page directly at [http://chemistry.semo.edu/olesen/Medical Technology/Medical Technology.html](http://chemistry.semo.edu/olesen/Medical%20Technology/Medical%20Technology.html).

**Bachelor of Science
MEDICAL TECHNOLOGY MAJOR**

Requirements for Medical Technology Major; B.S. Degree

	<u>Credit Hours</u>
University Studies Core Curriculum	27*
University Studies Interdisciplinary Courses	6*
UI-100 First Year Seminar	3
Required Courses (pre-requisites)	46-49
CH185/005/085 General Chemistry I (MA095 or equiv)	5**
CH186 General Chemistry II (CH185)	3
CH187 Qualitative Analysis (CH186 pre or co)	2
CH271 Quantitative Analysis (CH187), (Fall)	4
CH341 Organic Chemistry I (CH186)	4
CH342 Organic Chemistry Lab I (CH341 pre or co)	1
UI331 Biochemistry I (CH342), (Fall)	3**
MA134 College Algebra (MA095 or equiv)	3**
MA223 Elementary Probability and Statistics (MA134 or equiv)	3
BS103 Human Biology	3**
OR	
BS108 Biology for Living	3**
OR	
BI154 Genetics and Cellular Biology (BI151)***	3
BI200 General Microbiology (BS108 or BI154)	3
BS332 Human Physiology (BS108 or equiv), (Fall)	3
OR	
ZO 331 Animal Physiology (ZO200, CH342)	3
BI381 Genetics (BI200 and MA134)	3
BI442 Immunology (BI 200), (Fall)	3
BI543 Pathogenic Microbiology (BI200), (Spring)	2
BI544 Pathogenic Microbiology Lab (BI200), (Spring)	1
Electives (3 hours less if BI151 is taken)	8-5
EN100 English Composition	0-3
Clinical Year Program Off Campus	30
Minimum Degree Requirement	120

*Does not include hours for University Studies courses included in core curriculum.

##49 if BI151 and BI154 are taken, 46 if either BS103 or BS108 is taken.

**University Studies course

***Requires student to take BI151 Biological Reasoning before enrolling in BI154.

BS in Medical Technology
Suggested 8 Semester Sequence

First Semester	Hrs.	Second Semester	Hrs.
UI100 First Year Seminar	3	CH186 General Chemistry II	3
CH185 General Chemistry I Lecture	5	CH187 Qualitative Analysis	2
CH085 General Chemistry I Lab	0	EN140 Rhet. & Crit. Thinking	3
CH005 General Chemistry I Recitation	0	BS103 Human Biology	3
MA134 College Algebra	3	or	
EN100 English Comp	0-3	BS108 Biol. for Living	3
		or	
		BI154 Genetics and Cellular Biology*	3
		University Studies Electives	6
Third Semester	Hrs.	Fourth Semester	Hrs.
CH271 Quantitative Analysis	4	CH341 Organic Chemistry I	4
BS332 Human Physiology	3	CH342 Organic Chemistry I Lab	1
BI200 General Microbiology	3	BI381 Genetics	3
University Studies Electives	6	University Studies Electives	6
Fifth Semester	Hrs.	Sixth Semester	Hrs.
UI331 Biochemistry I	3	BI543 Pathogenic Microbiology	2
University Studies Electives	6	BI544 Pathogenic Microbiology Lab	1
BI442 Immunology	3	UI3XX University Studies	3
MA223 Elementary Prob. And Statistics	3	UI4XX University Studies	3
		General Electives	5
		WP003 75 Hour Writing Exam	0
Seventh and Eighth Semester	Hrs.		
Clinical Year	30		

*BI151 should be taken during semester 1 if BI154 is taken in semester 2.

MED. TECH. PROGRAM MUST BE CO-SIGNED BY DR. BJORN OLESEN or DR. PHILIP CRAWFORD

Notes:

1. The sequence of Chemistry and Biology courses is critical. CH271 is taught Fall only and requires CH185, 186, 187 as prerequisites. UI331 is taught Fall only and requires CH342 as prerequisite.
2. BI-200 is taught Fall and Spring and requires BS103, BS108 or BI154, as prerequisites. BI442 is taught Fall only with BI200 as prerequisite. BI543 and 544 are taught Spring only with BI200 as prerequisite. BS332 is taught Fall only.
3. Some clinical programs require Biochem I (CH531 or UI331)
4. Completion of the California Critical Thinking Skills Tests is required after completion of 75 hours.
5. CL001, CL002, CL003, CL004 (Career Linkage sessions) 0 credit (Required for students entering Southeast in fall 2005 or later)