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**

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.

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<table>
<thead>
<tr>
<th>Demonstrated Career Proficiency is a Requirement of all Southeast Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CL001/CL002</strong> First Semester</td>
</tr>
<tr>
<td><strong>CL003</strong> Junior Year</td>
</tr>
<tr>
<td><strong>CL004</strong> Senior Year</td>
</tr>
</tbody>
</table>

**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/index.htm
Medical Technology

Bachelor of Science (BS)

This is a guide based on the 2014-2015 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**

**Medical Lab Science Core – 47-48 Hours Required**
- BI200 Microbiology (3)
- BI381 Molecular Genetics (3)
- BI442 Immunology (3)
- BI543 Pathogenic Microbiology (2)
- BI544 Pathogenic Microbiology Laboratory (1)
- BS103 Human Biology (3)
- OR
- BS108 Biology for Living (3)
- OR
- BI154 Genetics and Cellular Biology (4)
- BS332 Human Physiology (3)
- OR
- ZO331 Animal Physiology (3)
- CH185 General Chemistry (5)
- 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)
- CH351 Foundations of Biochemistry (3)
- OR
- UI331 Foundations of Biochemistry (3)
- MA134 College Algebra (3)
- MA223 Elementary Probability and Statistics (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, Development of Major Civilization, Economic Systems, Political Systems, Social Systems, one IU/UI3XX*, and one UI4XX.

* Note: Two IU/UI3XX courses are required if CH531 Foundations of Biochemistry is taken rather than UI331 Foundations of Biochemistry.

**SAMPLE FOUR-YEAR PLAN**

**Medical Technology**
Requirements for the 2014-2015 Undergraduate Bulletin

<table>
<thead>
<tr>
<th>Course #</th>
<th>Hrs</th>
<th>Course #</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td></td>
<td>Spring Semester</td>
<td></td>
</tr>
<tr>
<td>UI100</td>
<td>3</td>
<td>BS103/BS108/BI154</td>
<td>3-4</td>
</tr>
<tr>
<td>EN100</td>
<td>3</td>
<td>CH186</td>
<td>3</td>
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<tr>
<td>CH185/CH085/CH005</td>
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<td>CH187</td>
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<td>MA134</td>
<td>3</td>
<td>Social Systems</td>
<td>3</td>
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<tr>
<td>Artistic Expression</td>
<td>3</td>
<td>Written Expression</td>
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</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>Total</td>
<td>14-15</td>
</tr>
</tbody>
</table>

**FIRST YEAR**

**SECOND YEAR**
- BI200 | 3 | CH341 |

**THIRD YEAR**
- BI381 | 3 | CH342 |

**FOURTH YEAR**

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 freshman and senior levels.

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.

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**Experience Southeast Success**

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