

UNIVERSITY OF MISSOURI- ST. LOUIS
AND
ST. LOUIS COMMUNITY COLLEGE

**COURSEWORK leading to a BACHELOR OF SCIENCE in
BIOCHEMISTRY AND BIOTECHNOLOGY**

FIRST SEMESTER

SLCC Course (Hours)

BIO 140 Principles of Biology I (4)
CHM 105 General Chemistry I (5)
*MTH 160 College Algebra (4)
*MTH 170 Trigonometry (3)
ENG 101 College Composition I (3)

UMSL Equivalent

Biol 1811
Chem 1111
Math 1030
Math 1035
English 1100

SECOND SEMESTER

SLCC Course (Hours)

Humanities (3)
CHM 106 General Chemistry II (5)
*MTH 210 Geometry & Calc.I (5) **or**
 *MTH 186 Survey of Calculus (4)
Social Science/Cultural Diversity (3)

UMSL Equivalent

Gen Ed
Chem 1121
Math 1800
Math 1100
Gen Ed

Semester Hours: (16)

Semester Hours: (15-16)

THIRD SEMESTER

SLCC Course (Hours)

**BIO 219 Biotechnology I (5)
BIO 218 Microbiology for Biotech.(4)
CHM 206 Organic Chemistry I (3)
CHM 210 Organic Chem. Lab I (2)
PHIL 109 Bio-Medical Ethics (3)

UMSL Equivalent

Biol 2482 & 2483
Chem 2612
Chem 2633
Phil 2256

FOURTH SEMESTER

SLCC Course (Hours)

**BIO 220 Biotechnology II (5)
CHM 207 Organic Chemistry II (3)
CHM 211 Organic Chemi. Lab II (2)
State Requirement (3)
COM 101 Oral Communication I (3)

UMSL Equivalent

Chem 2622
Approved Elective
Gen Ed
Commun 1040

Semester Hours: (17)

Semester Hours: (16)

FIFTH SEMESTER

UMSL Course (Hours)

BIOL 2012 Genetics (3)
BIOL 2013 Genetics Laboratory (2)
CHEM 2223 Quantitative Analysis (3)
ENGLISH 3100 Advanced Expository Writing (3) **or**
 ENGLISH 3160 Writing in the Sciences (3)
CHEM 3302 Physical Chemistry for the Life Sciences (3)

SIXTH SEMESTER

UMSL Course (Hours)

BIOL/CHEM 4712 Biochemistry (3)
+ Biochemistry/Biotechnology Elective (3)
Humanities (3)
PHYSICS 1011 Basic Physics I (4)
Social Science (3)

Semester Hours: (14)

Semester Hours: (16)

SEVENTH SEMESTER

UMSL Course (Hours)

⁺⁺ CHEM 4733 Biochemistry Laboratory (2)
BIOL 3622 Cell Biology (3)
⁺ Biochemistry/Biotechnology Elective (3)
PHYSICS 1012 Basic Physics II (4)

Semester Hours: (12)

EIGHTH SEMESTER

UMSL Course (Hours)

BIOL 4602 Molecular Biology (3)
⁺ Biochemistry/Biotechnology Elective (3)
Elective (3)
Elective (3)
Elective (3)
CHEM/BIO 4797 Biochem Biotech Seminar
Semester Hours: (15)

DEGREE NOTES:

* If MTH 186 Survey of Calculus is selected taken in the second semester, then MTH 170 Trigonometry does not need to be taken in the first semester.

**** Completion of BIO 220 Biotechnology II satisfies the requirements of UMSL's BIOL 4614 Biotechnology Laboratory I and it will not have to be repeated. However, BIO 220 is not recognized as an UMSL upper level credit for the purposes of meeting the department graduation requirement of 27 hours. Students will not have to take any biotechnology laboratory courses at the University of Missouri- St. Louis but will have to choose other upper division courses to fulfill the 27 hour requirement. BIO 219 Biotechnology I is the prerequisite of BIO 220.**

+ Courses are to be selected in consultation with the student's University of Missouri- St. Louis faculty advisor.

++ CHEM 4733 Biochemistry Laboratory must be taken during a Fall semester.

All Biochemistry & Biotechnology degree students must complete a total of 27 hours of upper-division courses to graduate from the University of Missouri- St. Louis.

A minimum of 120 hours is required for the Bachelor of Science in Biochemistry & Biotechnology.

Free Elective hours do not count towards the total required for graduation at the University of Missouri- St. Louis.

Students completing a degree from a Missouri community college that includes a CBHE approved general education core will be allowed transfer credit of more than 64 hours only if the additional lower division credits are applicable to the baccalaureate degree or are prerequisites for upper division courses in the major.

A maximum of 60 hours may transfer without the completion of a degree including a CBHE approved general education core.

Please seek advisement from your SLCC Academic Advisor for assurance of Associates degree completion.

IT IS IMPORTANT TO CONTACT AN UMSL TRANSFER COORDINATOR EACH SEMESTER:

SLCC- Florissant Valley

Maya Scruggs, UMSL Transfer Coordinator: First Floor Administration Bldg., (314) 513-4260.

SLCC- Forest Park

Maya Scruggs, UMSL Transfer Coordinator: Student Center E228, (314) 644-9729.

SLCC- Meramec

Krystal Lang, UMSL Transfer Coordinator: Counseling & Advising, 201 Clark Hall, (314) 984-7575.

For additional information contact Keith Stine in the University of Missouri- St. Louis Chemistry Department: 315 Benton Hall, (314) 516-5311, kstine@umsl.edu.