

BACHELOR OF SCIENCE

Biochemistry Major Courses 2019-2021

15 courses; Minimum 30 credits required; 29 credits must be from SU

Course	Name	Grade	Credit
CHE51-103	General Chemistry I		
CHE51-101	Chemical Methods and Techniques Lab I		
CHE51-203	General Chemistry II		
CHE51-201	Chemical Methods and Techniques Lab II		
CHE51-314	Organic Chemistry I*		
CHE51-311	Organic Chemistry I Lab*		
CHE51-324	Organic Chemistry II for Majors*		
CHE51-331	Organic Chemistry II for Majors Lab*		
CHE51-614	General Biochemistry I**		
CHE51-624	General Biochemistry II**		
CHE51-862	Advanced Lab in Biochemistry		
CHE51-932	Senior Capstone		

Take one additional Biochemistry course (level 600):

CHE51-6XX			
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Take one course from the following:

CHE51-404	Inorganic Chemistry & Biological Systems		
CHE51-414	Organometallic and Bioorganometallic Chemistry		
CHE51-504	Instrumentation in Env and Biological Analysis		
CHE51-514	Quantitative Chemical Analysis		
CHE51-704	Physical Chemistry: Thermodynamics & Kinetics		

Take one additional advanced laboratory course (level 800):

CHE51-8X2			
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Biology courses

BIO50-232	Methods in Cellular/Molecular Biology		
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Take one upper level Cellular/Molecular Biology course:

BIO50-XX4			
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* At least one course from CHE51-314/311 and CHE51-324/331 must be taken at SU

**Both Biochemistry I and II must be taken at Southwestern.

Take one of the following options:

Option #1:

Two credits of *one* of the following two research courses

		Grade	Credit
CHE51-91X	Methods in Laboratory Research		
CHE51-92X	Laboratory Research with Distinction		

Option #2:

CHE51-94X	Academic Internship (minimum 2 credits)		
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Option #3:

Take one additional advanced Lab course (level 800). This option is only available to students who have not completed a Methods in Lab Research course.

CHE51-8X2			
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Required Supporting Course:

Select one of the following:

MAT52-154	Calculus I		
MAT52-164	Applied Multivariable Calculus I		

Select one of the following:

MAT52-254	Calculus II		
MAT52-264	Applied Multivariable Calculus II		

Take the following:

BIO50-123	Living Systems		
BIO50-121	Investigation into Living Systems		
BIO50-133	Molecular and Population Genetics		
BIO50-131	Investigation into Genetics		
PHY53-154	Fundamentals of Physics I		
PHY53-164	Fundamentals of Physics II		

Two courses from different depts in this section may be used in the E&B.

General Education Requirements

At least 30 total credits required; minimum 3 credits per requirement.

General Education - Part I

Take one of the following first semester seminars:

UST05-014	First Year Seminar		
UST05-214	Advanced Entry Seminar		

Foreign Language (three semesters of the same language)

Social Justice Course (may double count with any requirement):

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Two Fitness/Recreational Activity courses (must be different topics):

General Education - Part II: Exploration & Breadth (6 total courses)

CHE51-XXX courses cannot be used to satisfy E&B requirements. Additionally, any BIO50-XXX courses taken to meet major requirements may not be used in the E&B section.

Select one course from each of the four following areas:

Humanities:

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Natural Sciences:

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Social Sciences:

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Fine Arts:

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Select one additional course from TWO of the four areas: Humanities, Natural Science, Social Science and Fine Arts. Neither course may come from the department (3 digit prefix) used above. EX: If you took PSY33-104 Principles of Psychology as a social science, you may not select another PSY33-XXX course to apply in this section.

*Public Speaking, College Writing and Creative Writing courses may not count in E&B.

University Graduation Requirements:

Minimum of 127 credits: _____

Cumulative GPA > 2.0 _____

GPA > 2.0 for Major and/or Areas of Concentration _____

All grades C- or higher in major/minor/core? _____

At least 64 credits completed at Southwestern _____

No more than 56 credits of any 5 digit prefix _____

Major credits completed (min 30 required) _____

60% of Major courses completed at Southwestern (29cr) _____

Gen Ed has minimum of 30 credits _____

Minor (optional):

Minimum 18 credits _____

Minimum of 12 credits taken at Southwestern _____

Minimum 2.0 minor courses CGPA _____

Other:

Degree Audit Completed (Due one year before grad date) _____

Grad Application Submitted (Due start of final semester) _____

Approved to be part time in last semester? _____