

BIOLOGY MAJOR

MAJOR OBJECTIVES

In addition to fulfilling the Science-Mathematics Departmental objectives:

- Students majoring in **Biochemistry, Biology, Chemistry and Natural Sciences** are expected to:
 - Formulate questions about nature that are amendable to scientific investigations
 - Utilize current information retrieval technology to effectively search the scientific literature and to be conversant with current developments
 - Apply modern approaches, techniques and instrumentation in designing and conducting experiments
 - Use appropriate software packages for instrumental control and data manipulation

Important Notes

- 40% of major requirements must be completed at Judson.
- At least 18 hours of major requirements must be upper division.

Gen Eds Required by Major

- Any Mathematics course of 3 hours or more (fulfills Gen Ed Mathematics Requirement)
- Any Science course (with Lab) of 4 hours or more (fulfills Gen Ed Science Requirement)
- SCM319 Junior Science Seminar (1 c.h.) (fulfills Gen Ed GEN301 Requirement)

Major Requirements

Code	Title	Hours
Biology Core		
BIO171	Principles of Biology w/Lab	4
BIO172	Prin of Organismal Biology w/Lab	4
or BIO177	Environmental Science w/Lab	
BIO376	Evolutionary Theory/W Lab	4
BIO380	Genetic Analysis w/Lab	4
Field Biology		
Select one upper-level Field Biology course from the following:		4
BIO379	Ecology w/Lab	
SAP3**/4** Dpt-approved course ¹		
Biology Electives		
Select 12 hours of electives from the following:		12
BIO273	Anatomy and Physiology I w/Lab	
BIO274	Anatomy and Physiology II w/Lab	
Biology 300- or 400-level Elective		
Biochemistry 300- or 400-level Elective		
SAP3**/4** Dpt-approved course ¹		
Chemistry		
CHM153	General Chemistry I w/Lab	4
CHM154	General Chemistry II w/Lab	4
CHM257	Organic Chemistry I w/Lab	5
CHM258	Organic Chemistry II w/Lab	5
Mathematics		

MAT211	Functions and Calculus I	3-5
or MAT215	Calculus w/Analytic Geometry I	
MAT311	Probability and Statistics w/Lab	4
SCM Seminars		
SCM219	Sophomore Science Seminar	1
SCM319	Junior Science Seminar	1
SCM419	Senior Science Seminar	1
Total Hours		60-62

¹ Shedd Aquarium, Morton Arboretum, Au Sable Institute of Environmental Studies, etc.

Bachelor of Science in Biology (Four-Year Plan)

Academic planning is the student's responsibility. This Graduation Plan is designed to be a guide to assist students as they plan their course selections. This is only a suggested schedule, and is not a substitute for a student's Advising Worksheet, nor the Program Requirements in the Judson University Catalog. Actual course selections should be made with the advice and approval of an academic advisor. Students should become familiar with the catalog in effect at the time at which they entered the institution. Course requirements and sequencing may vary with AP courses, transfer courses, English/math placement, or other conditions.

A full-time course load for undergraduate students is 12-18 credits per semester. Illinois residents receiving state aid should register for 15 hours per semester.

In addition to the courses below, chapel is required for all traditional full-time students (i.e., those taking 12 or more credit hours), both residents and commuters. This course counts as 1 credit towards a student's full-time status within the term, but does not earn credits towards graduation.

Course	Title	Hours
First Year		
First Semester		
MAT211	Functions and Calculus I	3-5
or MAT215	or Calculus w/Analytic Geometry I	
GEN101	Questions of Life: Entering the Judson Conversation	1
or ESS101	(<24 transfer hours) ¹	
	or Wellness	
Physical Activity course		1
CHM153	General Chemistry I w/Lab	4
BIO171	Principles of Biology w/Lab	4
Hours		13-15
Second Semester		
ENG101	Expository Writing (or ACT/SAT placement)	3
BST110	Intro to the Christian Bible	3
CHM154	General Chemistry II w/Lab	4
BIO172	Prin of Organismal Biology w/Lab	4
MAT216	Calculus w/Analytic Geometry II	4
Hours		18
Second Year		
First Semester		
ENG102	Critical Thinking and Writing (or ACT/SAT placement)	3
SPC120	Foundations of Speech	3
SCM219	Sophomore Science Seminar	1
CHM257	Organic Chemistry I w/Lab	5
Any Elective		3
Hours		15

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Second Semester

PSY111 or SOC151	Introduction to Psychology or Introduction to Sociology	3
THS110	Christian Faith: Understanding and Application	3
Gen Ed Visual and Performing Arts Elective		3
Biology Elective 1 ²		4
Hours		13

Third Year

First Semester

HIS261 or HIS262	History of Civilization I or History of Civilization II	3
Gen Ed Biblical Studies Elective		3
BI0379	Ecology w/Lab	4
BI0380	Genetic Analysis w/Lab	4
Hours		14

Second Semester

SCM319	Junior Science Seminar ³	1
CHM258	Organic Chemistry II w/Lab	5
BI0376	Evolutionary Theory/W Lab	4
Biology Elective 2 ²		4
Hours		14

Fourth Year

First Semester

GEN401	The Good Life: Continuing the Conversation	3
SCM419	Senior Science Seminar	1
Biology Elective 3 ²		4
Any Electives		9
Hours		17

Second Semester

MAT311	Probability and Statistics w/Lab	4
Any Electives		12
Hours		16
Total Hours		120-122

¹ First-time students (those entering college directly from high school) should take GEN101; transfer students should take ESS101

² see major audit

³ GEN301 equivalent