

ACADEMIC ROADMAP

Biology BS Concentration

Spring 2026

Freshman Year (30 credits)

FIRST SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Foundations of Biology	BIO 111 ("C" or better)	
Introductory Chemistry or Functions and Modeling	MAT 114 ("C" or better)	
GE 23 course		
GE 23 course		
College Writing I	CWP 101	

SECOND SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Introductory Biology Series	BIO 211 or BIO 213	BIO 111 ("C" or better)
Fundamental of Chem 1 + lab (GE 23 Science and Bio BS Req)	CHE 111 and CHE 113 (lab)	MAT 114 ("C" or better)
GE 23 course	(Recommend PSY 101, GE 23 Social Science)	
GE 23 course		
College Writing II	CWP 102	CWP 101

Notes and recommendations:

Attend at least one faculty office hour; visit Academic Commons (Math & Writing Centers, tutoring); view your degree audit sheet in Degree Works

Sophomore Year (60 credits)**THIRD SEMESTER**

Course Title	Catalog Number	Prerequisite(s)
Introductory Biology Series	BIO 211 or BIO 213	BIO 111 ("C" or better)
Fundamental of Chem II + lab	CHE 112 & CHE 114 (lab)	CHE 111 & CHE 112
GE 23 course	Recommend PHI 111 GE 23, Humanities)	
GE 23 course		
All College Elective		

FOURTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Required Biology course (one of these four courses)	BIO 303 (Genetics) (Fall only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113, CHE 112/114
	BIO 314 (Advanced Cell Biology) (Spring only)	BIO 111 ("C" or better), 211, 213 & CHE 111/113, CHE 112/114, CHE 201
	BIO 316 (General Microbiology) (Spring only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113
	BIO 440 (Applications in Biotechnology) (Fall only)	BIO 111("C" or better), 211, 213, CHE 111/113, CHE 112/114
Organic Chemistry I with lab	CHE 201/203	CHE 111/114 & CHE 112/114
GE 23 course		
All College Elective		

Notes and recommendations:

Form a study group; consider enrolling in a minor or certificate program

Junior Year (90 credits)**FIFTH SEMESTER**

Course Title	Catalog Number	Prerequisite(s)
Required Biology course (one of these four courses)	BIO 303 (Genetics) (Fall only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113, CHE 112/114
	BIO 314 (Advanced Cell Biology) (Spring only)	BIO 111 ("C" or better), 211, 213 & CHE 111/113, CHE 112/114, CHE 201
	BIO 316 (General Microbiology) (Spring only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113
	BIO 440 (Applications in Biotechnology) (Fall only)	BIO 111("C" or better), 211, 213, CHE 111/113, CHE 112/114
Cellular Biology Elective (One of these eight courses)	BIO 301, BIO 305, BIO 350, BIO 402, BIO 408, BIO 435, BIO 450, or CHE 470	Prerequisites vary
Statistics	BIO 300 or MAT 311	Upper division status for BIO 300
All College Elective		

SIXTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Required Biology course (one of these four courses)	BIO 303 (Genetics) (Fall only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113, CHE 112/114
	BIO 314 (Advanced Cell Biology) (Spring only)	BIO 111 ("C" or better), 211, 213 & CHE 111/113, CHE 112/114, CHE 201
	BIO 316 (General Microbiology) (Spring only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113
	BIO 440 (Applications in Biotechnology) (Fall only)	BIO 111("C" or better), 211, 213, CHE 111/113, CHE 112/114
Organic Chemistry II with lab	CHE 202/204	CHE 111/114, CHE 112/114, CHE 201/213
All College Elective		
All College Elective		

Notes and recommendations:

To meet the degree requirement of 45 upper division credits, 2-3 of the courses designated GE 23 or All College Electives must be upper division courses (300 to 400 level).

Visit the Career and Professional Education Center; talk to your faculty advisor about graduate school options.

Senior Year (120 credits)**SEVENTH SEMESTER**

Course Title	Catalog Number	Prerequisite(s)
Required Biology course (one of these four courses)	BIO 303 (Genetics) (Fall only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113, CHE 112/114
	BIO 314 (Advanced Cell Biology) (Spring only)	BIO 111 ("C" or better), 211, 213 & CHE 111/113, CHE 112/114, CHE 201
	BIO 316 (General Microbiology) (Spring only)	BIO 111 ("C" or better), 211 & 213, CHE 111/113
	BIO 440 (Applications in Biotechnology) (Fall only)	BIO 111("C" or better), 211, 213, CHE 111/113, CHE 112/114
Biological Form, Function & Diversity	BIO 333 (fall only)	BIO 111 ("C" or better), 211 and 213
General Physics I (GE 23 Science and Bio BS Req)	PHY 107	
All College Elective		

EIGHTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Biology Elective Course	By advisement	
General Physics II	PHY 108	PHY 107
Cellular Biology Elective (One of these eight courses)	BIO 301, BIO 305, BIO 350, BIO 402, BIO 408, BIO 435, BIO 450, or CHE 470	Prerequisites vary
All College Elective		
All College Elective		

Notes and recommendations:

Apply for graduation; apply to graduate school, if applicable; visit the Career and Professional Education Center to have your resume reviewed