

BIOLOGY, BACHELOR OF SCIENCE (BS) - CONCENTRATION IN CELLULAR AND MOLECULAR BIOLOGY

RECOMMENDED FOUR-YEAR PLAN

Course	Title	Hours
First Year		
Fall		
ENGL 102	Critical Writing	3
BIOL 113	Biology I: Foundations of Ecology, Evolution and Diversity with Lab	4
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
ESAP 101	FYRST Seminar ⁸	1
SUBJ 139	Foundations of Academic Discovery ¹	3
Hours		15
Spring		
ENGL 104	Critical Reading	3
BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
CHEM 108	General Chemistry II	3
CHEM 112	General Chemistry II Lab	1
Creative & Aesthetic Inquiry (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Hours		14
Second Year		
Fall		
Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	
BIOL 250	Genetics with Lab	4
CHEM 201	Organic Chemistry I	3
CHEM 211	Organic Chemistry Laboratory I	1
Humanities Inquiry (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Declare a Thematic Thread ²		
Hours		14
Spring		
BIOL 325	Biostatistics and Experimental Design with Lab	3
Select one of the following:		4
CHEM 202/212	Organic Chemistry II	
BIOL 300+	Upper Level BIOL Elective	
Social Science Inquiry (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3

Thematic Thread Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)	3
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Hours 16

Third Year

Fall

BIOL 340	Vertebrate Anatomy with Lab	3
CHEM 335	Biochemistry I	3
or CHEM 350	or Analytical Chemistry	
BIOL 300+	Upper Level BIOL Elective	3
Thematic Thread Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3

Hours 12

Spring

BIOL 330	Microbiology/Lab	3
BIOL 335	Cell Biology	3
BIOL 435	Cellular and Molecular Analysis Laboratory	3
MATH 125	Precalculus	4
or MATH 225	or Calculus I	
Elective		3

Hours 16

Fourth Year

Fall

PHYS 201	Elements of Physics I with Lab	4
or PHYS 216	or University Physics 1 with Lab	
BIOL 401	Ecology with Lab	3
BIOL 300+	Upper Level BIOL Elective	3
Thematic Thread Requirement (https://catalog.sru.edu/undergraduate/rock-studies/rock-studies-program/)		3
Elective with DEI attribute		3

Hours 16

Spring

BIOL 450	Biology Internship	3
BIOL 490	Independent Study ³	3
BIOL 492	Biology Seminar	1
PHYS 202	Elements of Physics II/ Lab	4
or PHYS 217	or University Physics 2 with Lab	
Elective		4

Hours 15

Total Hours** 118

¹ Course offered in multiple subjects; cannot take course in first major subject.

² Work with your Academic Adviser to declare a Thematic Thread by the end of your fall semester in your second year.

³ or BIOL 300+:Upper Level BIOL Elective

* Students are encouraged to take ESAP 101 as a Free Elective.