

Bachelor of Science, Major in Biology and Minor in Earth Science
Program Grid

Note: This program grid is provided for guidance only. Degree completion is based on courses completed successfully, and is subject to all applicable requirements and procedures in effect. Students should consult the B.Sc. Degree Advisor to confirm program requirements for their chosen degree.

Course Number	Course Name	Credits	Upper-Level Credits	Notes
English 1	100-level English	3		1
English 2	100-level English	3		1
MATH 121	Calculus I	3		
MATH 122	Calculus II	3		
Non-Science 100-499	Non-Science Elective I	3		2
Non-Science 100-499	Non-Science Elective II	3		2
BIOL 121	Introductory Zoology	4		
BIOL 123	Intro. Cellular & Molecular Biology	4		
CHEM 111, 121 or 140	Chemistry Fundamentals I	4		
CHEM 122, 141 or 142	Chemistry Fundamentals II	4		
PHYS 111	Physics for the Life Sciences I	4		
PHYS 112	Physics for the Life Sciences II	4		
BIOL 200	Introduction to Cell Biology	3		
BIOL 201	Principles of Biochemistry	3		
BIOL 202	Ecology	3		
BIOL 210	Microbiology I	3		
BIOL 212	Genetics	3		
BIOL 223	Botany	3		
CHEM 231	Organic Chemistry I	3		
CHEM 232	Organic Chemistry II	3		
MATH 211	Statistics I	3		
BIOL 305	Animal Physiology	3	3	
BIOL 402	Evolution	3	3	
BIOL 403	Current Topics in Biology	3	3	
BIOL 320, 336/337 or 341	Specialization Course I	3	3	3
BIOL 322, 332 or 342	Specialization Course II	3	3	3
BIOL 300-499	Upper-Level Biology Elective I	3	3	4
BIOL 300-499	Upper-Level Biology Elective II	3	3	4
BIOL 300-499	Upper-Level Biology Elective III	3	3	4
BIOL 300-499	Upper-Level Biology Elective IV	3	3	4
BIOL 300-499	Upper-Level Biology Elective V	3	3	4
GEOL 111	Discovering Planet Earth	4		
GEOL 112	Understanding Earth's History	4		
GEOL 115	Lab & Field Studies in Earth Science	3		
GEOL 200	Mineralogy and Petrology	3		
GEOL 201	Sedimentology and Stratigraphy	3		
GEOL 202	Earth Structures	3		
GEOL 206	Field Geology and Geol. Mapping	3		
GEOL 300-499	Upper-Level Geology Elective I	3	3	5
GEOL 300-499	Upper-Level Geology Elective II	3	3	5
GEOL 300-499	Upper-Level Geology Elective III	3	3	5
GEOL 300-499	Upper-Level Earth Science Elective I	3	3	6
GEOL 300-499	Upper-Level Earth Science Elective II	3	3	6
GEOL 300-499	Upper-Level Earth Science Elective III	3	3	6
	TOTAL:	137	48	

See notes on the next page /...

NOTES:

1. The Degree English Requirement can be met as follows:
 - ENGL 115 and one of ENGL 111, 112, 116, 125, 135 or 225;
 - ENGL 111 and 112;
 - ENGL 125 and 135; or,
 - LBST 111 and 112.

2. Non-Science Electives can be any courses outside of the Science discipline numbered 100-499. The following courses may not be counted to meet this requirement, although they may be counted as general electives:
 - Any course beginning with the following discipline identifiers: AQUA, ASTR, BIOL, CHEM, CSCI, ENGC, ENGE, ENGM, ENGR, FISH, FRST, GEOL, MATH, PHYS, RMOT, QUME and SCIE.
 - Anthropology: ANTH 111, 213, 214, 341B, 342, 343, 344, 350, 351, 352, 361, 401, 430, 449, 460.
 - Geography: GEOG 211, 212, 221, 226, 228, 326, 328, 372, 373, 374, 376, 428.
 - Psychology: PSYC 200, 204, 205, 206, 300A, 300B, 301, 302, 315, 316, 317A, 319, 323, 324, 345A, 365, 400, 445, 490, 491.
 - Physical Education: PHED 201, 210, 220, 302, 400.

3. The Biological Specialization can be chosen from the following options:
 - Microbial Biology: BIOL 332, and BIOL 336 or BIOL 337.
 - Molecular and Cellular Biology: BIOL 341 and BIOL 342.
 - Aquatic and Terrestrial Ecology: BIOL 320 and BIOL 322.

4. Upper-Level Biology Electives can be any BIOL course numbered 300-499.
 - Students have the option to complete a research project in their final year: BIOL 490 (3 credits) or 491 (6 credits).
 - Students interested in taking BIOL 490 or 491 should consult the B.Sc. Degree Advisor.

5. Upper-Level Geology Electives can be any GEOL course numbered 300-499.

6. Upper-Level Earth Science Electives can be any course chosen from the following lists:
 - GEOL courses numbered 300-499; or,
 - CHEM 301, 302; GEOG 326, 328, 372, 373, 374, 376, 428.