



VANCOUVER ISLAND  
UNIVERSITY

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 203	Biometrics	3		
BIOL 305	Animal Physiology	3	3	
BIOL 402	Evolution	3	3	
BIOL 403	Current Topics in Biology	3	3	
BIOL 300-499 Option	Specialization Course I	3	3	3
BIOL 300-499 Option	Specialization Course II	3	3	3
BIOL 300-499 Option	Specialization Course III	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
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	3		
GEOL 201	Sedimentology and Stratigraphy	3		
GEOL 202	Earth Structures	3		
GEOL 206	Geological Field Methods and 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
	<b>TOTAL:</b>	<b>140</b>	<b>48</b>	

See notes on the next page /...

## NOTES:

1. The Degree English Requirement can be met as follows:
  - Two of ENGL 115, 125, 135, 204, or INTR 100; 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, 353 361, 401, 430, 449, 460.
  - Geography: GEOG 211, 212, 221, 226, 228, 326, 328, 372, 373, 374, 376, 428.
  - Psychology: PSYC 204, 205, 300A, 300B, 301, 302, 305, 315, 316, 318, 319, 323, 324, 345, 365, 400, 415, 419, 445, 490, 491, 498A.
  - Physical Education: PHED 201, 220, 301, 302, 400, 401.
3. The Biological Specialization consists of 9 credits (3 courses) chosen from one of the following options:
  - Microbial Biology: BIOL 332, 334, 336, 337, 432 or 436.
  - Molecular and Cellular Biology: BIOL 341, 342, 435, 443, 445 or 465.
  - Aquatic and Terrestrial Ecology: BIOL 310, 315, 320, 322, 351 or 360.
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 Chair of the Biology Department.
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.