



VANCOUVER ISLAND
UNIVERSITY

Bachelor of Science, Major in Biology, Major in Mathematics
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 140	Chemistry Fundamentals I	4		
CHEM 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 I	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		
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
CSCI 160	Computing Science I	4		
CSCI 161	Computing Science II	4		
MATH 123	Logic and Foundations	3		
MATH 221	Calculus III	3		
MATH 223	Discrete and Combinatorial Math	3		
MATH 241	Linear Algebra	3		
MATH 254	Statistics I	3		5
MATH 222 or 251	200-Level Mathematics Option	3		
MATH 330	Introduction to Abstract Algebra	3	3	
MATH 335	Numerical Analysis I	3	3	
MATH 371	Introductory Real Analysis	3	3	
MATH 372	Introductory Complex Variables	3	3	
MATH 300-499	Upper-Level Mathematics Elective I	3	3	6
MATH 300-499	Upper-Level Mathematics Elective II	3	3	6
MATH 300-499	Upper-Level Mathematics Elective III	3	3	6
MATH 300-499	Upper-Level Mathematics Elective IV	3	3	6
MATH 400-499	400-Level Mathematics Elective I	3	3	7
MATH 400-499	400-Level Mathematics Elective II	3	3	7
TOTAL:		152	60	

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. Students interested in advanced courses in statistics (MATH 325, 326, or 421) are recommended to also take MATH 255.
6. Upper-Level Mathematics Electives can be any course selected from the following options:
 - CSCI 320, 340; MATH 300, 310, 317, 320, 325, 326, 331, 340, 341, 345, 346, 350, 360, 362, 370, 421, 430, 441, 443, 450, 451, 465, 470, 471, or 472.
7. The 400-Level Mathematics Electives can be any MATH course selected from the following options:
 - MATH 421, 430, 441, 443, 450, 451, 465, 470, 471, or 472.