



VANCOUVER ISLAND
UNIVERSITY

Bachelor of Science, Major in Chemistry, Minor in Aquaculture
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 I	3		1
English 2	100-level English II	3		1
MATH 100 or 121	Calculus I	3		
MATH 101 or 122	Calculus II	3		
CHEM 140	Chemistry Fundamentals I	4		
CHEM 141 or 142	Chemistry Fundamentals II	4		
PHYS 111 or 121	Physics I	4		
PHYS 112 or 122	Physics II	4		
BIOL 201	Principles of Biochemistry I	3		
CHEM 212	Environmental Chemical Analysis	3		
CHEM 213	Practical Spectroscopy	3		
CHEM 222	Inorganic Chemistry	3		
CHEM 231	Organic Chemistry I	3		
CHEM 232	Organic Chemistry II	3		
CHEM 241	Physical Chemistry	3		
MATH 203 or 211	Biometrics or Statistics I	3		
CHEM 300	Green Chemistry and Toxicology	3	3	
CHEM 312	Principles Instrumental Analysis	3	3	
CHEM 341	Reaction Kinetics and Mechanisms	3	3	
CHEM 351	Integrated Organic / Inorganic Laboratory	3	3	
CHEM 352	Integrated Physical Laboratory	3	3	
CHEM 400	Emerging Topics & Professional Practice	3	3	
CHEM 412	Advanced Topics in Analytical Chemistry	3	3	
CHEM 441	Bonding, Structure, and Properties	3	3	
CHEM 300-499 Option	Specialization Course I	3	3	2
CHEM 300-499 Option	Specialization Course II	3	3	2
CHEM 300-499 Option	Specialization Course III	3	3	2
BIOL 121	Introductory Zoology	4		
BIOL 123	Intro. Cellular & Molecular Biology	4		
AQUA 101	Introduction to Aquaculture	3		
AQUA 323	Invertebrate Aquaculture	3	3	
AQUA 328	Methods and Techniques of Finfish Culture	3	3	
AQUA 332	Finfish, Shellfish and Crustacean Nutrition	3	3	
AQUA 342	Finfish, Shellfish and Crustacean Health	3	3	
AQUA 375	Recirculating Aquaculture Systems (RAS)	3	3	
GEOG 356	Policy, Resources and Sustainability	3	3	3
MGMT 381	Entre/Intrapreneurship	3	3	3
Elective 100-499	General Elective I	3		4
Elective 100-499	General Elective II	3		4
Elective 100-499	General Elective III	3		4
TOTAL:		126	54	

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. The Chemistry Specialization consists of 9 credits (3 courses) chosen from one of the following options:
 - Biological Chemistry: CHEM 323, 334, 335, 432, or 433.
 - Environmental Chemistry: CHEM 301, 302, 325, 401, or 431.

Students without a Chemistry Specialization require 9 credits of Upper-Level CHEM Electives.

Additional Experiential Learning Opportunities (credits taken as electives):

- CHEM 380 - (Independent Work Experience in Chemistry) (3 credits)
 - CHEM 390 - (Field Studies in Chemistry) (3 credits)
 - CHEM 491 - (Undergraduate Research Project) (6 credits)
3. GEOG 356 and MGMT 381 can be used to meet the Non-Science Elective Requirement for the Bachelor of Science.
 4. General Electives can be courses in any discipline numbered 100-499.