



VANCOUVER ISLAND
UNIVERSITY

Bachelor of Science, Major in Computer Science, 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
ENGL 115	University Writing and Research	3		1
ENGL 204	Business and Technical Writing	3		1
MATH 100 or 121	Calculus I	3		
MATH 101 or 122	Calculus II	3		
Non-Science 100-499	Non-Science Elective I	3		2
Non-Science 100-499	Non-Science Elective II	3		2
Science 100-299	Lower-Level Science Elective	4		3
Science 100-299	Lower-Level Science Elective	4		3
CSCI 160	Computer Science I	4		
CSCI 161	Computer Science II	4		
CSCI 162	Topics in Computer Science	4		
CSCI 251	Systems and Networks	3		
CSCI 260	Data Structures	3		
CSCI 261	Comp. Architecture & Assembly Language	3		
CSCI 265	Software Engineering	3		
CSCI 310	Intro. to Human-Computer Interaction	3	3	
CSCI 311	Web Programming	3	3	
CSCI 320	Foundations of Computer Science	3	3	
CSCI 330	Programming Languages	3	3	
CSCI 355	Digital Logic and Computer Organization	3	3	
CSCI 360	Intro to Operating Systems	3	3	
CSCI 370	Database Systems	3	3	
CSCI 400	Computers and Society	3	3	
CSCI 460	Networks and Communications	3	3	
CSCI 300-499	Upper-Level Computer Sci. Elective	3	3	4
CSCI 400-499	400-Level Computing Sci. Elective I	3	3	5
CSCI 400-499	400-Level Computing Sci. Elective II	3	3	5
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		6
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	7
MATH 300-499	Upper-Level Mathematics Elective II	3	3	7
MATH 300-499	Upper-Level Mathematics Elective III	3	3	7
MATH 300-499	Upper-Level Mathematics Elective IV	3	3	7
MATH 400-499	400-Level Mathematics Elective I	3	3	8
MATH 400-499	400-Level Mathematics Elective II	3	3	8
TOTAL:		134	66	

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. Lower-Level Science Electives can be courses numbered 100-299 in any science discipline, except MATH and CSCI courses. These courses are required to satisfy the Lower-Level Sciences Requirement of the Bachelor of Science degree. Options of science disciplines include:
 - AQUA, ASTR, BIOL, CHEM, ENGC, ENGE, ENGM, ENGR, FISH, FRST, GEOL, PHYS, RMOT and SCIE.
 - Some 100-level science courses are worth 4 credits. Each 4-credit first year course taken increases the total credit requirement of the degree by one additional credit.
 - Computing Science Majors may take 6 credits of Business in lieu of Lower-Level Science Electives.
4. Upper-Level Computer Science Elective can be any CSCI course numbered 300-499, excluding CSCI 307, 308 and 309.
5. The 400-Level Computer Science Electives can be any CSCI course numbered 400-499.
6. Students interested in advanced courses in statistics (MATH 325, 326, or 421) are recommended to also take MATH 255.
7. 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.
8. 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.