



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 159 | 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.