

Science Freshman Program: Computer Science / Software Engineering

COMP 202 - Foundations of Programming

MATH 133 - Linear Algebra & Geometry

two calculus courses*

plus at least 3 of BIOL/CHEM/PHYS**

- Students who do not take COMP 202 in the freshman year may still follow these majors, but might have to start with COMP 202 in the U1 year.
- Students interested in the **Cognitive science minor** may also want to take **PSYC 100** *Introduction to Psychology*.
- Students interested in **Joint Physics and Computer Science** program must take **PHYS 131** *Mechanics and Waves* and **PHYS 142** *Electromagnetism & Optics*.
- Students interested in Joint Major in **Computer Science and Biology** program must take **BIOL 112** *Cell and Molecular Biology*.
- Students with High School calculus and who are interested in the **Joint Honours Mathematics and Computer Science** program are strongly advised to consider taking the more challenging calculus sequence **MATH 150** *Calculus A* and **MATH 151** *Calculus B*.
- Students who have not taken all of Biology, Chemistry and Physics at the grade 12 level should include any missing subjects in their freshman program.

Choosing your Calculus Courses*

- ❖ Students with no previous knowledge of Calculus should take **MATH 139** Calculus 1 with Precalculus, followed by **MATH 141** Calculus 2.
- ❖ Students with high school calculus take either the sequence **MATH 140** Calculus 1 / **MATH 141** Calculus 2 or the sequence **MATH 150** Calculus A / **MATH 151** Calculus B. The MATH 150/MATH 151 sequence covers the material of (and gives equivalence for) MATH 140, MATH 141 and **MATH 222** Calculus 3 and is more challenging than the standard MATH 140/MATH 141 sequence.

Choosing your Physics courses**

- ❖ Students who want to take a physical science (Atmospheric and Oceanic Sciences, Chemistry, Earth Systems Science, Earth and Planetary Sciences or Physics) or who want to keep their options open should take the sequence **PHYS 131** *Mechanics and Waves* / **PHYS 142** *Electromagnetism & Optics*.
- ❖ Students in the biological sciences can take **PHYS 131/PHYS 142**, but may prefer to take the sequence **PHYS 101** *Intro Physics - Mechanics* / **PHYS 102** *Intro Physics-Electromagnetism*, which covers the same material but assumes less mathematical background.