

STUDENTS ENTERING IN FALL 2025

HONOURS PHYSICS

*Required courses are in **bold font**.*

Fall term	Winter term
Year 1	
PHYS 1400 Introductory Physics I	PHYS 1410 Introductory Physics II
MATH 1720/MATH 1760 Differential calculus	MATH 1730 Integral calculus NOTE 1
CHEM 1100 Chemistry I	CHEM 1110 Chemistry II
MATH 1250/MATH 1260 Linear algebra	PHYS 1500 From Symmetry to Chaos in the Universe
COMP 1400 Introduction to Algorithms I	COMP 1410 Introduction to Algorithms II
Year 2	
PHYS 2200 Waves and Oscillations	PHYS-2210 Modern Physics
MATH 2780 Vector Calculus	PHYS 2500 Classical Mechanics I
MATH 2790 Differential Equations	MATH 3550 Introduction to Fourier Series and Special Functions
CHEM 2400 Introductory Physical Chemistry I	COMP 2650/ELEC 2170 Digital Logic Design I
Option 1	Option 2
Year 3	
PHYS-3200 Electricity and Magnetism I	PHYS 3210 Electricity and Magnetism II
PHYS-3900 Experimental Physics Laboratory I	Physics 3XXX or 4XXX NOTE 3
Physics 3XXX or 4XXX NOTE 2	Option 4
Physics 3XXX or 4XXX	Option 5
Option 3	Option 6
Year 4	
PHYS 3100 Quantum Mechanics I	PHYS 4100 Quantum Mechanics II
PHYS 3500 Classical Mechanics II	PHYS 4130 Introduction to Statistical Mechanics
Physics 3XXX or 4XXX	Physics 3XXX or 4XXX
Option 7	Physics 3XXX or 4XXX
Option 8	Option 9

NOTE 1: Students who wish to “get ahead” on their schedule are advised to enrol in “MATH 2780 Vector Calculus” and/or “MATH 2790 Differential Equations” which are both offered in the summer prior to their second year of classes. Taking these important pre-requisites will free up slots during the second year.

NOTE 2: The sequence of a “PHYS 3XXX or 4XXX course is not obligatory. Wherever it says PHYS 3XXX or 4XXX, a student may wish to take an option in its place; and the reverse is also true. Wherever it says “option” students may wish to instead take a PHYS 3XXX or 4XXX class in its place if there is a particularly relevant or interesting elective being offered that term. However, a Physics major **MUST** consult an advisor for the scheduling of these elective physics classes, as their availability and selection will not remain constant from year to year. Planning the final two years in advance will insure that the six (6) required physics electives are completed.

NOTE 3: Students may wish to consider taking PHYS-3700 Introduction to Medical Physics in their third winter, as it is the pre-requisite class for four (4) upper year PHYS 3XXX or 4XXX courses that a physics major may wish to take to fulfill the degree requirements. Students who do not complete PHYS-3700 may not be allowed to enrol in those other electives, should they be necessary for graduation.