MAJOR in PHYSICS

Updated September 2019

FIRST YEAR

FALL
MATH 1104
Linear Algebra

PHYS 1001
Foundations of Physics I

SECOND YEAR

FALL
MATH 1004
Calculus for Engineering or Physics

PHYS 1002
Foundations of Physics II

WINTER
MATH 1005
Differential Equations and Infinite Series

PHYS 2401
Thermal Physics

THIRD YEAR

FALL
MATH 2004
Multivariable Calculus for Engineering or Physics

PHYS 2604
Modern Physics I

WINTER
MATH 3705
Mathematical Methods I

PHYS 2202
Wave Motion and Optics

FOURTH YEAR

FALL
PHYS 2305
Electricity and Magnetism

WINTER
PHYS 3308
Electromagnetism

PHYS 3007
Third Year Physics Laboratory

PHYS 3701
Elements of Quantum Mechanics

PHYS 3606
Or
3608

PHYS

0.5 credit from STAT 2507 or STAT 3502 (Note: STAT 3502 requires MATH 2004)

Plus

1.0 credit in approved COMP, MATH, STAT or engineering electives at the 2000-level or higher, which may include 0.5 credit 1000-level COMP course (except COMP 1005).

1.5 credit in PHYS at the 3000-level or above

1.0 credit in PHYS at the 4000-level

0.5 credit from ELEC and/or science faculty electives (excluding TSES) at the 3000-level or above

3.5 credits in Advanced Science Faculty Electives and/or Approved Arts or Social Sciences Electives and/or Engineering electives; these credits may be used with an additional 0.5 credit to complete the requirements of a minor designation

2.0 credits in Approved courses outside the faculties of Science and Engineering and Design, one of which can be NSCI 1000

Plus

1.0 credit in free electives

Note:
- Dashed connecting lines indicate concurrent prerequisite.
- Some Experimental Science, COMP, ELEC and MATH, and many elective courses are also offered in summer, which may help to reduce your course load in the Fall and Winter terms.

Department of
Physics
CARLETON UNIVERSITY