ASTROPHYSICS

Updated April 2022

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	WINTER	FALL	WINTER	FALL	WINTER	FALL	WINTER

0.5 Credit from MATH 3800 or MATH 3806. May be taken any time after 1st year.

MATH 2107 Linear Algebra II (May be taken in summer or the 2nd year)

STAT 3502 Probability and Statistics — Can be taken in the 2nd year winter to ease the course load in your 3rd year

0.5 credit from PHYS at the 4000 level or above

MATH 1104 Linear Algebra

MATH 1005 Differential Equations and Infinite Series

MATH 2004 Multivariable Calculus for Engineering or Physics

MATH 3705 Mathematical Methods I

PHYS 3802 Advanced Dynamics

PHYS 4409 Thermodynamics and Statistical Physics

PHYS 4909 (full year project) **Or** **PHYS 4907/4908** + PHYS 4xxx — Requires 4th year standing

MATH 1004 Calculus for Engineering or Physics

PHYS 2401 Thermal Physics

PHYS 2202 Wave Motion and Optics

PHYS 3009 Third Year Physics Laboratory

PHYS 3807 Mathematical Physics I

PHYS 4707 Introduction to Quantum Mechanics I

PHYS 1001 Foundations of Physics I

PHYS 1002 Foundations of Physics II

PHYS 2604 Modern Physics I

PHYS 2305 Electricity and Magnetism

PHYS 3308 Electro-magnetism

PHYS 3606 Modern Physics ii

COMP 1005 Introduction to Computer Science I

COMP 1006 Introduction to Computer Science II

PHYS 2203 Astronomy

PHYS 3701 Elements of Quantum Mechanics

PHYS 4201 Astrophysics Or **PHYS 4202** Cosmology

PHYS 4201 Astrophysics Or **PHYS 4202** Cosmology

PHYS 2401 or PHYS 4409

PHYS 2401 or PHYS 4409

Experimental Science CHEM or BIOL or ERTH (1st course)

Experimental Science CHEM or BIOL or ERTH (2nd course)

0.5 credit from COMP, MATH, or PHYS at the 2000-level or above
Plus
0.5 credit from PHYS, COMP, MATH and/or STAT at the 3000-level or above

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

Carleton University
Department of Physics

- Physics
- Mathematics and Statistics
- Other Experimental Sciences
- Computer Programming
- Electronics
- Electives

Note:
- PHYS **4201** and PHYS **4202** are offered alternatively, take which ever is offered in your 3rd and 4th year.
- Dashed connecting lines indicate prerequisites that can be taken concurrently.
- 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.