

INTERDISCIPLINARY PHYSICAL SCIENCE (IPS)

IPS*1500 Integrated Mathematics and Physics I Fall Only (LEC: 6, LAB: 4) [1.00]

This is a foundational course for students in B.Sc. mathematical and physical sciences majors. The disciplines of Mathematics and Physics are taught in an integrated fashion that demonstrates how they support and enrich one another. Atomic structure, algebra and trigonometry, forces and Newton's laws, functions and graphing, differentiation, angular momentum and energy conservation, limits, integration, kinematics, and special relativity are presented in a harmonized fashion to ensure students have an improved understanding of these fundamentals.

Prerequisite(s): 1 of 4U Physics, PHYS*1020, PHYS*1300

Restriction(s): MATH*1080, MATH*1200, PHYS*1000, PHYS*1080

Department(s): Department of Physics, Department of Mathematics and Statistics

Location(s): Guelph

IPS*1510 Integrated Mathematics and Physics II Winter Only (LEC: 6, LAB: 4) [1.00]

This is the second foundational course for students in B.Sc. mathematical and physical sciences majors. The disciplines of Mathematics and Physics are taught in an integrated fashion that demonstrates how they support and enrich one another. Thermodynamics, integration, electrostatics, partial derivatives, multidimensional integrals, simple harmonic motion, Taylor's series, and spectroscopy are presented in a harmonized fashion to ensure students have an improved understanding of these fundamentals.

Prerequisite(s): IPS*1500

Restriction(s): MATH*1090, MATH*1210, MATH*2080, PHYS*1010, PHYS*1070, PHYS*1130

Department(s): Department of Physics, Department of Mathematics and Statistics

Location(s): Guelph

IPS*3000 Science Communication Fall Only (LEC: 3, LAB: 3) [0.50]

This course focuses on developing the skills required to communicate science for non-specialist audiences. The principles and practices of public speaking and writing will be explored, employing a variety of media. Through multiple oral and written assignments, students will explore tailoring their message for various audience-types.

Prerequisite(s): 2.00 credits in PHYS at the 2000 level or higher

Restriction(s): PHYS*4300

Department(s): Department of Physics

Location(s): Guelph