PHYSICS, ENGINEERING PHYSICS AND ASTRONOMY

Departmental Notes
Subject Code for Astronomy: ASTR
Subject Code for Physics: PHYS
World Wide Web Address: www.queensu.ca/physics/home
(https://www.queensu.ca/physics/home/)

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Overview
Through studying Physics at Queen's, you will be trained in
observation and experimentation, in applied mathematics
and model building, and will develop the confidence
to tackle new and intellectually demanding problems.
This will place you at the leading edge of research and
development in science and technology. This program
deals with the properties of matter and energy, from
everyday concepts such as force, heat and electricity, to the
abstract ideas of relativity and quantum mechanics. The
Department of Physics, Engineering Physics and Astronomy
also offers a Specialization Plan in Astrophysics
(https://queensu-ca-public.courseleaf.com/arts-science/schools-departments-
programs/physics-engineering-astronomy/astrophysics-specialization-science-bs-honours/), and
jointly with the Department of Mathematics and Statistics, a
Specialization Plan in Mathematical Physics
(https://queensu-ca-public.courseleaf.com/arts-science/schools-departments-
programs/physics-engineering-astronomy/mathematical-physics-specialization-science-bs-honours/).

Advice to Students
Astronomy and Astrophysics
Astronomy courses at Queen's are offered by the
Department of Physics, Engineering Physics and Astronomy,
which has a research group active in astronomy and
astrophysics. Students intending to specialize in astronomy
or astrophysics at the graduate level should consider
the Astrophysics Specialization Plan
(https://queensu-ca-
public.courseleaf.com/arts-science/schools-departments-
programs/physics-engineering-astronomy/astrophysics-specialization-science-bs-honours/).
Students wishing to include a course in astronomy as an elective should refer to
ASTR 101, ASTR 102 and PHYS 216.

First Courses in Physics
PHYS 104 and PHYS 106 are intended for students in the
physical and mathematical sciences. Both are calculus-based
courses. A grade of at least B- in either of these courses
is recommended for entry into PHYS 206, PHYS 239, and
PHYS 242, which are required courses for most Physics Plans.

PHYS 115 and PHYS 116 are designed for students in the
biological and life sciences. 4U physics is recommended but
not required; neither is a previous or concurrent calculus
course, although some 4U or equivalent mathematics is
required. PHYS 118 has similar content to PHYS 115 and
PHYS 116, but has no lab component and is offered online
only.

ASTR 101, ASTR 102, PHYS P22, PHYS 260, and
PHYS 216 are attractive electives for students in
other disciplines. PHYS P22, ASTR 101, and ASTR 102
can count toward a Minor(Arts)
(https://queensu-ca-
public.courseleaf.com/arts-science/schools-departments-
programs/physics-engineering-astronomy/physics-
minor-arts/), General(Arts)
(https://queensu-ca-
public.courseleaf.com/arts-science/schools-departments-
programs/physics-engineering-astronomy/physics-general-
arts-ba) in Physics, but are only electives in other Physics
Plans.

Students with an A standing in both PHYS 115 and
PHYS 116 and, C in MATH 120 or MATH 121 may be admitted
to a Physics Plan (with PHYS 115 and PHYS 116 then satisfying
the first-year physics core requirement), but only after
consultation with, and approval from, the Department.

Ancillary Fees
Please note that in some courses you may be asked to
purchase a lab or course manual containing material(s)
specific to the lab/course content. Prices generally range from
$15 to $25 per manual and are sold through Physics Stores.