Physics (PHYS) 495

Physics Projects I (Revision 2)

Status:	Replaced with new revision, see the course listing for the current revision
Delivery mode:	Individualized study
Credits:	3
Area of study:	Science
Prerequisites:	Minimum 15 credits (with at least 6 credits at the senior level) in physics, astronomy, mathematics, chemistry, or geophysics. Course Coordinator approval: Before registering in PHYS 495, the student must submit an acceptable project proposal draft to the Course Coordinator .
Precluded:	None
Challenge:	PHYS 495 is not available for challenge.
Faculty:	Faculty of Science and Technology

Notes:	If you are interested in enrolling in this PHYS 495 project course, please contact the **Course Coordinator** . In your email, please include a copy of your curriculum vitae (CV) and a concise description of your proposed project. You may also request suggestions for suitable projects.

Overview

PHYS 495 is a senior research project course based on contracted study arrangements between the student and an approved project supervisor (AU academic or external). It is intended for students who wish to carry out a project in physics or a related field. The course is also a venue to obtain formal recognition of related skills and training, received through work experience, by applying them to a new project. Students improve their skills to choose and define problems, obtain relevant information, design real or virtual experiments, organize facts and information, and report ideas and conclusions.

A PHYS 495 project normally involves a theoretical, empirical, or simulation study designed to investigate or solve a problem in physics or its branches, including physics education, geophysics, and engineering physics.

Permission to register will be given once the student has a project proposal accepted and recognized as a Learning Contract by the Course Coordinator. The assigned project supervisor will provide mentorship and ensure the student completes what is planned.

Learning outcomes

Upon successful completion of this course, the student should be able to

- develop a research question and critically evaluate relevant resources in primary physics literature.

- construct a theoretical or experimental methodology and collect data to test the research question.
- perform proper analysis and interpretation of data and draw relevant conclusions.
- communicate the research activities and findings in a variety of scientific formats.

Evaluation

The results of this project must be presented in thesis form and in other prepared materials as outlined in the Learning Contract. The student must also present a summary of the project through a live conference-style presentation, which can be done online. The evaluation is completed by the Course Coordinator in consultation with the project supervisor.

To **receive credit**, the student must achieve a minimum of 50 percent on the final project report and a course composite grade of at least **D (50 percent)**. The final grade is based on marks received for the following:

Activity	**Weight**
Approved project proposal	15%
Final report describing the project and its results	60%
Online oral presentation outlining the project and main findings	25%
Total	**100%**

To learn more about assignments and examinations, please refer to Athabasca University's **online Calendar**.

Materials

This course either does not have a course package or the textbooks are open-

source material and available to students at no cost. This course has a **Course Administration and Technology Fee**, but students are not charged the Course Materials Fee.

Students are expected to obtain and pay for all materials used in the course project.

Important links

- **Academic advising**
- **Program planning**
- **Request assistance**
- **Support services**

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

Opened in Revision 2, June 10, 2022

Updated June 20, 2024

View **previous revision**