PHYS 220A: INTRODUCTION TO INDEPENDENT RESEARCH IN PHYSICS

Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2024
Credits:	1
Total Contact Hours:	54
Lab Hours:	54
Hours Arranged:	0
Outside of Class Hours:	0
Total Student Learning Hours:	54
Prerequisite:	Instructor approval is required prior to enrollment.
Strongly Recommended:	PHYS 110, PHYS 111 or PHYS 201; ENGL 101 or ENGL 101H.
Transferable to CSU:	Yes
Transferable to UC:	No
Grading Method:	Standard Letter

Catalog Course Description

An introductory course in research for students interested in physics-related research or projects. This course includes an introduction to research methods, directed reading, or other advanced study beyond the introductory physics level. 54 lab hours.

Course Objectives

- Learn to interpret, record and present data in a variety of formats (tables, graphs, lab notebook, etc.).
- Apply basic error analysis techniques on data.
- Participate in research activities leading to the development of a research project.
- Write scientific reports.
- Create and present a professional style poster.

Major Course Content

Students explore a topic of interest under the close supervision of the instructor. The course includes directed readings and carrying out an independent research project.

Lab Content

Students carry out an independent research project.

Suggested Reading Other Than Required Textbook

Journal articles related to research project; websites and books on writing scientific papers and creating scientific posters.

Examples of Required Writing Assignments

Students write a scientific report about their research project, following the appropriate scientific community format.

Examples of Outside Assignments

Students are required to research physics theories related to research project. Students are required to apply error analysis to data.

Instruction Type(s)

Lab