

# PHYS 225: TEAM-BASED RESEARCH IN PHYSICS I

## Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2023
Credits:	1
Lab Hours:	0
Hours Arranged:	54
Total Student Learning Hours:	54
Prerequisite:	PHYS 110 or PHYS 110H or PHYS 201 or PHYS 201H or concurrent enrollment for any.
Strongly Recommended:	ENGL 101.
Transferable to CSU:	Yes
Transferable to UC:	No
Grading Method:	Standard Letter

## Catalog Course Description

An introductory course in research for students participating in team based, physics-related research or projects. Topics include conducting a literature review, learning to be part of an effective research/design team and selecting feasible research ideas for implementation and outreach. 54 lab hours.

## Course Objectives

- Do a literature review.
- Compare similar projects and evaluate their feasibility.
- Prepare an informal oral presentation on project idea.
- Understand how to develop team norms and a team charter.
- Contribute to the report written by the team.
- Conduct at least one outreach activity related to the project.

## Major Course Content

N/A because this is a lab only course.

## Hours Arranged Content

1. Literature Review
  - a. Conducting a literature review
  - b. Writing citations in APA format
2. Project Feasibility
  - a. Physics theories and models and their application to the project ideas
  - b. Discussion of possible engineering designs
  - c. Resources needed to develop the project
3. Teamwork
  - a. Team structure and management
  - b. Team Responsibilities
    - i. Development of team norms
    - ii. Writing a team charter
4. Development of Educational Outreach Activities

## Suggested Reading Other Than Required Textbook

Project-related science journals/websites

## Examples of Required Writing Assignments

Write a section of the team report for the selected project idea.

## Examples of Outside Assignments

Choose an article from a science journal and prepare a 5-minute oral presentation summarizing the article and its relevance to a project idea.

## Instruction Type(s)

Lab