

STEM 251H: TEAM-BASED RESEARCH IN STEM II

Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2023
Credits:	1
Total Contact Hours:	54
Lab Hours:	54
Hours Arranged:	0
Prerequisite:	STEM 250H; student must be eligible for the Citrus College Honors Program or obtain a recommendation from an Honors instructor.
Strongly Recommended:	ENGL 101.
Transferable to CSU:	Yes
Transferable to UC:	No
Grading Method:	Standard Letter, Pass/No Pass

Catalog Course Description

A second course in research for students participating in team-based STEM research or projects. Topics include selecting and implementing research/project goals, communicating outcomes to diverse audiences, and developing an outreach strategy. 54 lab hours.

Course Objectives

- Read discipline-specific publications to inform team research/project direction.
- Utilize discipline-specific instruments to conduct research/project.
- Maintain an accurate record of project/research methodologies and outcomes using discipline-standard format.
- Analyze research/project outcomes and evaluate next steps in work.
- Communicate research/project outcomes using written and oral reports.
- Conduct at least one outreach activity related to the research/project.
- Differentiate between communication strategies for technical audiences versus the general public.

Lab Content

1. Literature Review
 - a. Perform Internet research on a research/project concept
 - b. Summarize research using discipline-specific terminology
2. Research/Project Planning and Implementation
 - a. Identify goal of research/project
 - b. Conduct research/project using discipline-specific equipment and instruments
 - c. Discipline-specific formats for documentation of research/project progress and outcomes
 - d. Analyze data and/or outcomes
 - e. Compare and contrast research/project with previous team work
 - f. Prepare a formal oral presentation on research/project
3. Outreach Activity

- a. Discuss difference between technical communication and general public outreach
- b. Identify key concepts for general audience
- c. Develop materials for oral presentation
- d. Conduct at least one outreach presentation

Suggested Reading Other Than Required Textbook

Students will be required to read discipline-specific publications.

Examples of Required Writing Assignments

Students will be required to write a report or summary of their work using discipline-specific terminology.

Examples of Outside Assignments

Students will be required to compare and contrast communication strategies for technical and general audiences. Students will be required to assess data generated from research/project and evaluate future directions for the work.

Instruction Type(s)

Lab