STEM 250H: TEAM-BASED RESEARCH IN STEM I

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:	Instructor permission; 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

An introductory course in research for students participating in team-based STEM research or projects. Topics include reading discipline-specific publications, learning to be part of an effective research/project team, and presenting research/project outcomes with discipline-specific terminology. 54 lab hours.

Course Objectives

- Read discipline-specific publications to inform team research/project direction.
- Utilize discipline-specific instruments to conduct research/project.
- Record methodology and data generated during research/project using discipline-standard format.
- Analyze research/project outcomes and evaluate next steps in work.
- Prepare an oral presentation on research/project using discipline-specific terminology.
- Contribute to written report, summary, or poster authored by the team.
- Understand how to develop team norms and communicate effectively with team members.

Lab Content

1. Literature Review
   a. Identify credible information sources
   b. Prepare a written or oral summary of current state of knowledge related to research/project
2. Teamwork
   a. Team structure
   b. Development of team norms
   c. Effective communication practices in teams
3. Research/Project Planning and Implementation
   a. Identify goal of research/project
   b. Conduct research/project using discipline-specific equipment and instruments
   c. Documentation practices in the discipline
   d. Analyze data and/or outcomes
   e. Communicate data and/or outcomes using industry-specific terminology

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 reports or summaries of their research/project methodologies and outcomes using discipline-specific terminology.

Examples of Outside Assignments

Students will be required to relate discipline-specific concepts to real-world challenges. They will be required to analyze global issues and how the discipline may be used to address these issues.

Instruction Type(s)

Lab