

# CHEM 0028 - INDEPENDENT STUDY

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## Catalog Description

Description: Designed for students interested in furthering their knowledge at an independent study level in an area where no specific curriculum offering is currently available. Independent study might include, but is not limited to, research papers, special subject area projects, and research projects. See Independent Study page in catalog. (CSU, UC-with unit limitation)

## Course Student Learning Outcomes

- CSLO #1: Develop an independent study project with written goals and objectives to include critical thinking.
- CSLO #2: Complete proposed project independently.
- CSLO #3: Evaluate project success with instructor.

## Effective Term

Fall 2022

## Course Type

Credit - Degree-applicable

## Contact Hours

54-162

## Outside of Class Hours

0

## Total Student Learning Hours

54-162

## Course Objectives

1. Develop an independent study project with written goals and objectives which include critical thinking;
2. complete the proposed project independently;
3. demonstrate through the submission of research projects, increased knowledge and skills related to the subject area; and
4. evaluate project success with the instructor.

## General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

## Articulation Information

- CSU Transferable
- UC Transferable

## Methods of Evaluation

- Classroom Discussions
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.
- Essay Examinations
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.
- Objective Examinations
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.
- Problem Solving Examinations
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.
- Projects
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.
- Reports
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.
- Skill Demonstrations
  - Example: Specific measurements for student performance will be established by the instructor at the beginning of each independent study project.

## Repeatable

No

## Methods of Instruction

- Laboratory

Lab:

1. The independent study project is purposely geared to require elements of reading (e.g., research and ideas related to the project), writing (e.g., the final project report), and critical thinking (e.g., acquired data must be put in the context of a model).

## Typical Out of Class Assignments

### Reading Assignments

1. Create a reading list of articles and/or books related to the project topic.
2. Summarize and critique articles from list.

### Writing, Problem Solving or Performance

1. Write an outline of the proposed project including methods of completing the project.
2. Summarize the activities of the project in journal format.

### Other (Term projects, research papers, portfolios, etc.)

1. Submit project report at end of semester.

## **Required Materials**

### **Other materials and-or supplies required of students that contribute to the cost of the course.**

Determined on basis of individual project. Instructor will evaluate educational materials at time of submission of initial project proposal.