

## CHEM49 : Chemistry Independent Study

### General Information

Author:	<ul style="list-style-type: none"><li>Corey Jamieson</li></ul>
Course Code (CB01) :	CHEM49
Course Title (CB02) :	Chemistry Independent Study
Department:	CHEM
Proposal Start:	Winter 2025
TOP Code (CB03) :	(1905.00) Chemistry, General
CIP Code:	(40.0501) Chemistry, General.
SAM Code (CB09) :	Non-Occupational
Distance Education Approved:	No
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000394406
Curriculum Committee Approval Date:	03/27/2024
Board of Trustees Approval Date:	06/18/2024
Last Cyclical Review Date:	03/27/2024
Course Description and Course Note:	<p>CHEM 49 provides independent exploration to familiarize students with research techniques, career options, and special academic interests in chemistry. Emphasis shall be on individual research projects, library research, and/or preparation of research papers. There is no prescribed course content. Students develop and complete a research project approved by the sponsoring instructor and division chairperson. Note: Registration is open to any student at GCC who is currently registered for six or more units and who is admitted to Independent Study by the instructor. A student is limited to one Independent Study per semester and no more than 12 units credit toward the AA Degree or Certificate, and no more than six units per division. The units received may be acceptable for college transfer subject to the approval of the individual college. This course may be taken 3 times; a maximum of 9 units may be earned.</p>
Justification:	Mandatory Revision
Academic Career:	<ul style="list-style-type: none"><li>Credit</li></ul>
Author:	No value

### Academic Senate Discipline

Primary Discipline:	<ul style="list-style-type: none"><li>Chemistry</li></ul>
Alternate Discipline:	No value
Alternate Discipline:	No value

## Course Development

### Basic Skill Status (CB08)

Course is not a basic skills course.

Allow Students to Gain Credit by Exam/Challenge

### Course Special Class Status (CB13)

Course is not a special class.

### Pre-Collegiate Level (CB21)

Not applicable.

### Grading Basis

- Grade with Pass / No-Pass Option

### Course Support Course Status (CB26)

Course is not a support course

## Transferability & Gen. Ed. Options

### General Education Status (CB25)

Not Applicable

### Transferability

Transferable to CSU only

### Transferability Status

Approved

## Units and Hours

### Summary

**Minimum Credit Units (CB07)** 1

**Maximum Credit Units (CB06)** 3

**Total Course In-Class (Contact) Hours** 54 - 162

**Total Course Out-of-Class Hours** 0 - 0

**Total Student Learning Hours** 54 - 162

### Credit / Non-Credit Options

#### Course Type (CB04)

Credit - Degree Applicable

#### Noncredit Course Category (CB22)

Credit Course.

#### Noncredit Special Characteristics

No Value

#### Course Classification Code (CB11)

Credit Course.

Variable Credit Course

#### Funding Agency Category (CB23)

Not Applicable.

Cooperative Work Experience

Education Status (CB10)

### Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	3 - 9	0
Studio Hours	0	0

### Course Student Hours

<b>Course Duration (Weeks)</b>	18
<b>Hours per unit divisor</b>	54
<b>Course In-Class (Contact) Hours</b>	
Lecture	0
Laboratory	54 - 162
Studio	0

**Total** 54 - 162

**Course Out-of-Class Hours**

Lecture	0
Laboratory	0
Studio	0
<b>Total</b>	<b>0</b>

**Time Commitment Notes for Students**

No value

**Units and Hours - Weekly Specialty Hours**

Activity Name	Type	In Class	Out of Class
No Value	No Value	No Value	No Value

**Pre-requisites, Co-requisites, Anti-requisites and Advisories**

**Co-Requisite**

Concurrent registration in 6 or more units.

**Entry Standards**

Entry Standards

**Course Limitations**

Cross Listed or Equivalent Course

**Specifications**

Methods of Instruction

Methods of Instruction Independent Study

## Out of Class Assignments

- Research project

## Methods of Evaluation

Other

## Rationale

Faculty evaluation of research project.

## Textbook Rationale

No required textbooks. Faculty advisor and staff at the host institution may assign readings from discipline-specific sources.

## Textbooks

Author

Title

Publisher

Date

ISBN

No Value

No Value

No Value

No Value

No Value

## Other Instructional Materials (i.e. OER, handouts)

No Value

## Materials Fee

No value

## Learning Outcomes and Objectives

### Course Objectives

Conduct independent discipline-specific research activities.

Demonstrate a specific in-depth knowledge in the discipline involved.

### SLOs

Apply concepts and knowledge of discipline-specific materials to research projects, essays, and other assignments.

Expected Outcome Performance: 70.0

*ILOs*  
Core ILOs Analyze and solve problems using critical, logical, and creative thinking; ask questions, pursue a line of inquiry, and derive conclusions; cultivate creativity that leads to innovative ideas.

Demonstrate depth of knowledge in a course, discipline, or vocation by applying practical knowledge, skills, abilities, theories, or methodologies to solve unique problems.

*CHEM*  
Chemistry compare and contrast the general chemistry performance exam taken at Glendale Community College with the national performance norm, reported by the American Chemical Society.

## Course Content

### Lecture Content

No value

### Laboratory/Studio Content

**Research project (54-162 hours)**

**Total hours: 54-162**

## Additional Information

Is this course proposed for GCC Major or General Education Graduation requirement? If yes, indicate which requirement in the two areas provided below.

No

### GCC Major Requirements

No Value

### GCC General Education Graduation Requirements

No Value

### Repeatability

Not Repeatable

### Justification (if repeatable was chosen above)

No Value

## Resources

Did you contact your departmental library liaison?

No

If yes, who is your departmental library liaison?

No Value

Did you contact the DEIA liaison?

No

Were there any DEIA changes made to this outline?

No

**If yes, in what areas were these changes made:**

No Value

**Will any additional resources be needed for this course? (Click all that apply)**

- No

**If additional resources are needed, add a brief description and cost in the box provided.**

No Value