CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by November 2, 2009, to make the next catalog (2010--2011) production.

DATE (CHANGE DATE EACH TIME REVISED):  9/29/2009 REV 11.16.09

PROGRAM AREA(S): CHEMISTRY

Directions: All of sections of this form must be completed for course modifications. All documents are stand alone sources of course information.

1. Course Information.
   [Follow accepted catalog format.] (Add additional prefixes if cross-listed)

<table>
<thead>
<tr>
<th>OLD</th>
<th>NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix CHEM Course# 499 Title CHEMISTRY CAPSTONE COLLOQUIUM Units (2)</td>
<td>Prefix CHEM Course# 499 Title CHEMISTRY CAPSTONE Units (2)</td>
</tr>
<tr>
<td>2 hours lecture per week</td>
<td>2 hours lecture per week</td>
</tr>
</tbody>
</table>

X Prerequisites: CHEM 305, CHEM 371 and CHEM 492 or 494 (or concurrent enrollment)

Consent of Instructor Required for Enrollment

Corequisites: 

Catalog Description (Do not use any symbols):

Oral and written presentation of work completed or work-in-progress projects of CHEM 492 or 494 courses. Graded credit/no-credit.

Catalog Description (Do not use any symbols):

Students in their final academic year learn to communicate scientific information to other scientists. Students present scientific information from work completed or work-in-progress of their independent research (CHEM 494), internship (CHEM 492), or extensive literature research.

General Education Categories

Lab Fee Requested

A - F Total Completions

Course Level:

Undergraduate

Post-bac/Credential Graduate

Optional Enrollment in same semester

Required for up to units Total Completions

Graded CR/NC

Repeatable

Multiple

General Education Categories

Lab Fee Requested

A - F Total Completions

Course Level:

Undergraduate

Post-bac/Credential Graduate

Optional Enrollment in same semester

Required for up to units Total Completions

Graded CR/NC

Repeatable

Multiple

3. Course Attributes:

2. Mode of Instruction (Hours per Unit are defaulted)

<table>
<thead>
<tr>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>Hours Per Unit</td>
</tr>
<tr>
<td>Lecture</td>
<td>1</td>
</tr>
<tr>
<td>Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Lab</td>
<td></td>
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<tr>
<td>Activity</td>
<td></td>
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<tr>
<td>Field Studies</td>
<td></td>
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<tr>
<td>Indep Study</td>
<td></td>
</tr>
<tr>
<td>Other blank</td>
<td></td>
</tr>
</tbody>
</table>

Hegis Code(s) __________________________ (Provided by the Dean)

CS No.(filled out by Dean)
General Education Categories: All courses with GE category notations (including deletions) must be submitted to the GE website: http://summit.csuci.edu/geapproval. Upon completion, the GE Committee will forward your documents to the Curriculum Committee for further processing.

A (English Language, Communication, Critical Thinking)
- A-1 Oral Communication
- A-2 English Writing
- A-3 Critical Thinking

B (Mathematics, Sciences & Technology)
- B-1 Physical Sciences
- B-2 Life Sciences – Biology
- B-3 Mathematics – Mathematics and Applications
- B-4 Computers and Information Technology

C (Fine Arts, Literature, Languages & Cultures)
- C-1 Art
- C-2 Literature Courses
- C-3a Language
- C-3b Multicultural

D (Social Perspectives)
E (Human Psychological and Physiological Perspectives)

UDIGE/INTD Interdisciplinary
Meets University Writing Requirement
Meets University Language Requirement

American Institutions, Title V Section 40404:
- Government
- US Constitution
- US History

Refer to website, Exec Order 405, for more information: http://senate.csuci.edu/comm/curriculum/resources.htm

Service Learning Course (Approval from the Center for Community Engagement must be received before you can request this course attribute).

4. Justification and Requirements for the Course. [Make a brief statement to justify the need for the course]

OLD
This course is typically taken by students in the Chemistry major in their last semester of study. This course will be an upper-division requirement for students majoring in chemistry.

NEW
This course is typically taken by students in the Chemistry major in their last semester of study. This course will be an upper-division requirement for students majoring in chemistry.

Submit Program Modification if this course changes your program.

5. Learning Objectives. (List in numerical order. You may wish to visit resource information at the following website: http://senate.csuci.edu/comm/curriculum/resources.htm)

Upon completion of the course, the student will be able to:

OLD
Students who successfully complete this course will be able to:

- Evaluate a chemical problem and determine how molecular shape, electronic structure, thermodynamics, kinetics, and intermolecular interactions are involved in the behavior of the system.
- Present and discuss results of scientific work in a professional, well-organized and substantive way.
- Communicate chemical information to both a colloquial and specialized audience.

NEW
Students who successfully complete this course will be able to:

- Evaluate a chemical problem and determine how molecular shape, electronic structure, thermodynamics, kinetics, and intermolecular interactions are involved in the behavior of the system.
- Present and discuss results of scientific work in a professional, well-organized and substantive way.
- Communicate chemical information to both a colloquial and specialized audience.
• Demonstrate the ability to write to the scientific audience using the accepted conventions of the day.
• Evaluate and accurately reference background information from previous studies in the literature.
• Discuss and critique other students’ scientific work in a constructive way.
• Interpret, discuss, and evaluate a primary literature article.
• Demonstrate the ability to write to the scientific audience using the accepted conventions of the day.
• Evaluate and accurately reference background information from previous studies in the literature.
• Discuss and critique other students’ scientific work in a constructive way.
• Interpret, discuss, and evaluate a primary literature article.

6. Course Content in Outline Form. (Be as brief as possible, but use as much space as necessary)

OLD

Organizing and Writing a Paper
Outlining and organizing results
Structure and conventions
Poster Presentation
Quality Figures
Presenting a Poster
Peer and Faculty Review
Peer Review of papers
Rewriting of papers
Presentation
Oral Presentation of Work
Final Paper
Finishing touches
Final review
General Audience Presentation

NEW

Organizing and Writing a Paper
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Peer and Faculty Review
Peer Review of papers
Rewriting of papers
Presentation
Oral Presentation of Work
Final Paper
Finishing touches
Final review
General Audience Presentation

Does this course content overlap with a course offered in your academic program? Yes [ ] No [x]
If YES, what course(s) and provide a justification of the overlap. [ ]

Does this course content overlap a course offered in another academic area? Yes [ ] No [x]
If YES, what course(s) and provide a justification of the overlap. [ ]

Overlapping courses require Chairs’ signatures.

7. Cross-listed Courses (Please note each prefix in item No. 1)

A. List cross-listed courses (Signature of Academic Chair(s) of the other academic area(s) is required).
B. List each cross-listed prefix for the course: [ ]
C. Program responsible for staffing: [ ]

8. References. [Provide 3-5 references]

OLD

NEW

9. Tenure Track Faculty qualified to teach this course.
Simone Aloisio, Blake Gillespie, Phil Hampton

10. Requested Effective Date or First Semester offered: **Spring 2011**

11. New Resource Requested:  Yes  No  
If YES, list the resources needed.

A. Computer Needs (data processing, audio visual, broadcasting, other equipment, etc.)

B. Library Needs (streaming media, video hosting, databases, exhibit space, etc.)

C. Facility/Space/Transportation Needs:

D. Lab Fee Requested: Yes  No  (Refer to the Dean’s Office for additional processing)

E. Other.

12. Indicate Changes and Justification for Each. [Check all that apply and follow with justification. Be as brief as possible but, use as much space as necessary.]

| Course title | Course Content | Course Learning Objectives | References | GE |
| Staffing formula and enrollment limits | | | | |
| Prerequisites/Corequisites | Other | | | |
| Catalog description | Reactivate Course | | | |
| Mode of Instruction | | | | |

**Justification:** We no longer require CHEM 492 or CHEM 494, although almost all of our students take these courses. The prerequisites and course description were re-written to reflect this. This course should also probably be graded with a letter grade as students submit varying degrees of work.

13. Will this course modification alter any degree, credential, certificate, or minor in your program?  Yes  No
If, YES attach a program update or program modification form for all programs affected.
Priority deadline for New Minors and Programs: **October 5, 2009** of preceding year.
Priority deadline for Course Proposals and Modifications: **November 2, 2009**.
Last day to submit forms to be considered during the current academic year: **April 15th**.

**Simone Aloisio**

Proposer(s) of Course Modification  Date

Type in name. Signatures will be collected after Curriculum approval.
Course: 

If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

<table>
<thead>
<tr>
<th>Chair</th>
<th>Signature</th>
<th>Date</th>
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<tbody>
<tr>
<td>Program Chair</td>
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<td>Program Chair</td>
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<td>Program Chair</td>
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<td>General Education Chair</td>
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<tr>
<td>Center for Intl Affairs Director</td>
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<td>Center for Integrative Studies Director</td>
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<td>Center for Multicultural Engagement Director</td>
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<td>Center for Civic Engagement and Service Learning Director</td>
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<td>Curriculum Chair</td>
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<tr>
<td>Dean of Faculty</td>
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