

# Approval Form

1905.435

Proposal Title: Request for Approval of a New Course

Sponsor(s) Scott D. ... Dept.: ... Ext. ...

**Check one:**  Course  Specialization  Concentration  Minor  Achievement Certificate  
 Certification Program  Major Program  Minor Change

(please name, deletion or credit/title/catalog change)

Undergraduate  Graduate 3 Credit Hours

<p><b>Step 1 (Department)</b></p> <p><input type="checkbox"/> Approved <u>2/22/93</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p>Dept. CC Chairperson _____</p> <p><input type="checkbox"/> Reviewed _____ Date</p> <p><u>[Signature]</u> Dept. Chairperson</p>	<p><b>Step 2 (Receipt)</b></p> <p><input checked="" type="checkbox"/> SCC# <u>43-93-51</u></p> <p>Proposal Received _____ Date</p> <p><u>[Signature]</u> SCC Chairperson</p>	<p><b>Step 3 (School CC)</b></p> <p>Reviewed <u>2-22-93</u></p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p><b>Comments:</b></p> <p><u>[Signature]</u> School Curr Comm. Chairperson</p>
---	--	---

**Step 4 (Academic Dean)** **Comments:**

Recommend  
 Not Recommend  
 Conditionally Recommend (see comments)

Reviewed 2/23/93 Date

[Signature]  
Signature, Dean of School

**Step 5 (SCC)**

Open Hearing 4/2/93 Date  Approved by Senate Curriculum Committee 4/27/93 Date

Returned to sponsor(s) for the following reasons:

**Step 6 (Senate)**

Presented to Senate 4/30/93 Date  Approved  Not Approved

Notification to Executive Vice-President/Provost 4/30/93 Date

[Signature]  
Signature, SCC Chairperson

**Step 7 (Executive V.P./Provost)**

Received \_\_\_\_\_

If no, reasons are as follows:

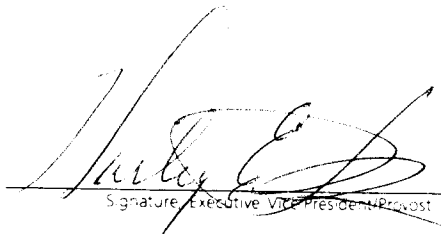
Approved  Yes  No

Student credit hours 3

Faculty load hours \_\_\_\_\_

Equalized credit hours \_\_\_\_\_

Official copy and approval sheet filed 5/25/93  
Date

  
\_\_\_\_\_  
Signature, Executive Vice President/Provost

**Registrar**

Approved course description received 2 June 93  
Date

Hegis Taxonomy and Course Number assigned 1905: 435

B. Kelsey  
Signature, Registrar

2 June 93  
Date

**Notification forwarded:**

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

## **Cooperative Education in Chemistry New Course Proposal**

### **1. DETAILS**

a. Course Title:       **Cooperative Experience in Chemistry**

b. Sponsors:         Robert Newland, Mark Chamberlain, Charles Schultz, Lee Dinsmore, Rhys Craver, George Leder; Department of Physical Sciences.

c. 3 S.H.

d. Junior or Senior level undergraduate course. Two levels are possible: Lower Level and Senior Level.

e. Lower Level: Restricted elective credit. Senior Level: Major requirement option.

f. Lower Level: Chemistry I (1906.100) and II (1906.101) with Organic I (1907.300) & II (1907.301) and Quantitative Analysis (1909.350) recommended and permission of Co-op Coordinator. Senior Level: Physical Chemistry II (1908.401) and permission of Co-op Coordinator.

g. Immediate implementation.

h. Staff and all other resources are adequate. We have a Co-op Coordinator in place. Funding will be handled through regular load and overload at the rate of 0.5 Load Hours per students as is our research program.

i. The history of the co-op experience in the Department is long and represents a very successful option for students. This course is being proposed to replace the co-op course that is no longer available at the College.

### **2. RATIONALE**

Co-op has been an option of the undergraduate program in Chemistry for some time. The co-op student has been supervised by his/her on-site supervisor; observed, further assessed and a grade determined by a designated member of the Chemistry faculty. The College Co-op Office has handled the paperwork and transmitted the grade to the Registrar. The Co-op Office no longer exists and the co-op experience must now be handled completely within the Department. Therefore, this course is not really a new course but only a change in the administration of the course.

The BS in Chemistry major program has recently added a research requirement. We wish to provide the option of doing this research outside the department setting. We have had a co-op program in effect for some time and counted such course work under the restricted elective category within the major. This designation would still apply to those students wishing to enroll in the co-op experience prior to taking Physical Chemistry I. It

would also apply to those students electing to enroll for more than 3 S.H. of coop credit. Only 3 S.H. can be counted toward the research requirement of the Chemistry Major. This categorization of the Co-op Experience would have prevailed if the Co-op Office had continued to exist. By proposing this course we are simply making sure that we have an appropriately numbered course in our offerings.

### **3. ESSENCE OF THE COURSE**

a. The goal of the Co-op Program is to provide the student with opportunity to participate in a research/development experience in a non-academic setting.

b. A topical outline is not applicable to this course since the content is dependent on the specific experience as arranged by the student, faculty and outside agency. In cooperation with the on-site supervisor and the faculty co-op coordinator the student will develop a clear and concise statement of the proposed research project, setting forth both the research and the educational goals and objectives to be attained. This statement must be approved by the on-site supervisor and the faculty co-op coordinator.

c. The faculty co-op coordinator will visit the student at his/her work site at least twice in each semester or summer to assess progress towards the goals and objectives. A written report of this assessment will be sent to the student and his/her supervisor.

Before a grade for co-op is awarded, the student will submit a short written summary of his/her work, describing particularly the progress made in attaining the research and educational objectives. A final evaluative report will also be submitted by the on-site supervisor.

The Senior Level student who wishes to use the course as a substitute for the research project will submit a full report of the research and will also present the results of the work orally.

The grade for the co-op experience will be determined by the faculty co-op coordinator for the Lower Level student.

d. The research experience represents the capstone of the BS in Chemistry Major Program. This course is an optional opportunity to do that research in a non-academic setting. The successful completion of the course by our students represents an assessment of the entire program. The students' viewpoint will be clearly indicated in the written report presented as part of the course requirements. In addition, the Department will receive a report from the on-site supervisor. This information will become part of the Department's Program Review.

### **4. RESULTS OF CONSULTATIONS**

No consultations have been done since this type of option has been available on this campus for some time. It has been ascertained from the Dean of Liberal Arts and Sciences that proposing this course was necessary since the Co-op Office closed and no provisions have been made for the continuation of such options on the College or School level.

## **CATALOG DESCRIPTION of COOPERATIVE EXPERIENCE IN CHEMISTRY**

(Prerequisite: For credit as a restricted elective: Chemistry I (1906.100) and II (1906.101) with Organic I (1907.300) & II (1907.301) and Quantitative Analysis (1909.350) recommended and permission of Co-op Coordinator. For Research credit: Physical Chemistry II (1908.401) and permission of Co-op Coordinator.)

The goal of this course is to provide the student with the opportunity to participate in a research/development experience in a non-academic setting. The course may be taken as an advanced elective by students with Junior or Senior status for a maximum of 3 S.H. credit. It may be elected to fulfill the research requirement of the BS in Chemistry Major. It can be taken more than once.