

SIMON FRASER UNIVERSITY

MEMORANDUM

S.76-161

SENATE

From SENATE COMMITTEE ON UNDERGRADUATE STUDIES

New Course Proposal - CHEM.483-15
Subject Individual Study Semester

Date 18th November, 1976

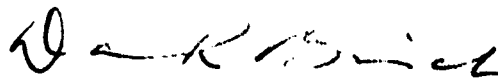
Action taken by the Senate Committee on Undergraduate Studies at its meeting of November 9th, 1976 gives rise to the following motion:

MOTION

That Senate approve, and recommend approval by the Board of Governors, CHEM.483-15, Individual Study Semester.

Note Item five on page three has been deleted from the proposal and is being reconsidered by the Chemistry Department within the context of the larger question concerning the relationship between financial remuneration and academic credit. SCUS approved CHEM.483-15 with the explicit deletion of that item and the request that it be reconsidered. A response of the Chemistry Department Chairman to that request is attached.

Members of SCUS were also concerned about the requirement that a student submit a research proposal to the Department at least three months prior to the start of the semester in which the course will be taken. The Committee was assured that the intent was to obtain a preliminary research proposal at that time. It was agreed that the word "preliminary" be inserted in the Calendar description of the course.



Daniel R. Birch

:ams

att.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

SCUS 76-42A

NEW COURSE PROPOSAL FORM

1. Calendar Information

Department: Chemistry

Abbreviation Code: CHEM Course Number: 483 Credit Hours: 15 Vector: ~~0-0-15~~

Title of Course:

Individual Study Semester

Calendar Description of Course: Research project under the guidance of a Faculty member who will chair a two-member supervisory committee. Students wishing to take this course must apply for admission by submitting a ^{preliminary} research proposal to the Department at least three months prior to the start of the semester in which the course will be taken. An ISS thesis must be written and must be submitted within ten days after the end of lectures. *(Continued below)

Nature of Course: Undergraduate Research Project

Prerequisites (or special instructions): (1) Completion of 23 semester hours of upper division (300/400 courses) Chemistry, with a G.P.A. of at least 3.0 in these courses. (2) Completion of the Mathematics and Physics requirements of the Chemistry programme. (3) Permission of the Department.
 What course (courses), if any, is being dropped from the calendar if this course is approved:

none

2. Scheduling

How frequently will the course be offered? on demand

Semester in which the course will first be offered? 77-2

Which of your present faculty would be available to make the proposed offering possible? all Faculty in Chemistry

3. Objectives of the Course

see D. Ryeburn's memo attached

* Students completing CHEM 483-15 may not include CHEM 481-5, or any other ISS course, as part of the 120 or 132 semester hours of their degree program.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty none

Staff none

Library none

Audio Visual none

Space none

Equipment and supplies: Normally available

5. Approval

Date: 22 Sept. 76

[Signature]
 Department Chairman

[Signature]
 20/10/76
 Dean

 Chairman, SCUS

SIMON FRASER UNIVERSITY

MEMORANDUM

F-76-11

o.....Dean & Faculty of Science.....

From.....D. Ryeburn.....

.....Chairman, Undergrad. Curriculum Cttee.

Subject.....New course proposal, CHEM 483-15.....

Date.....4 October 1976.....

The UGCC discussed the proposed Individual Study Semester (ISS) in Chemistry at meetings on 23 September and 30 September. The course proposal form, and the documents containing details of the course and a rationale were approved with minor amendments on 30 September. The "ISS Evaluation Form" was also approved, but with a more substantial amendment.

What follows is a revised version of the outline/rationale paper prepared by the Department of Chemistry, as amended by the UGCC.

1. The justification and the objectives of the ISS option may be summarized as follows:
 - (a) To provide an opportunity for academically able students to develop and pursue individual, original work in chemistry;
 - (b) To provide a mechanism in the undergraduate program for an in-depth study of a problem or project of a creative, research character, on an individual basis;
 - (c) To encourage individual initiative and responsibility with respect to the study of chemistry at the advanced levels.
 - (d) To improve the academic quality of our degree programs, in recognition of the value of academic maturity and individual choice.
2. The ISS will be a 15 credit-hour course, labelled Chem 483-15, and with the vector description 0-0-15.

The ISS falls naturally into three main parts, (A) Research Proposal, (B) Research Investigation, and (C) Research Reporting.

A. Research Proposal:

This part will delineate the problem to be studied, together with a survey of relevant literature, and a brief outline of the research strategy to be followed.

B. Research Investigation:

This part will consist of the collection of data, using suitable experimental methods, and the development of studies, procedures, and techniques appropriate to the emerging needs of the project.

C. Research Reporting:

This part will involve the writing of a thesis, describing the original objectives of the project, its ongoing development, the experimental approach, the collection, tabulation, reduction and analysis of data, and the conclusions to be drawn. The writer should give an analysis of the possible limitations of the project, and present a brief discussion of alternative approaches to the same or related problems.

3. Since the benefits to the student of the ISS experience will be a function of his ability, initiative, motivation and application, and of the quality of the supervision of the project, the following entry/pre-requisite and supervisory requirements are proposed:

- (a) A student registered in the Chemistry Honors or Majors program;
- (b) Completion of the Mathematics and Physics requirements in the Chemistry core program;
- (c) Completion of 23 hours of 300/400 level Chemistry courses with a GPA of 3.0 in these courses;
- (d) Selection of a senior supervisor by the student; (see footnote*)
- (e) Approval of a preliminary project proposal by the Department; (see footnote*)
- (f) Permission of the Department;
- (g) When entry into the ISS has been approved, the Department in consultation with the senior supervisor and the student, will appoint an associate member to the supervisory committee. The Supervisory Committee will be also responsible for the evaluation and grading of the ISS.

*Footnote: Students intending to pursue the ISS option must select a supervisor, and submit the preliminary project proposal, at least three months prior to the start of the semester in which the course will be taken.

(h) Upon commencement of the ISS, the student will prepare a detailed Research Proposal, to be submitted to the Supervisory Committee within two weeks from the commencement of lectures.

(i) Toward the end of the Individual Study Semester, the student will be expected to present a short seminar describing his/her ISS work. Details of the seminar will be publicised within the Department, but interested individuals outside the Department may be informally invited.

(j) A copy of the ISS thesis must be submitted by the student to the Supervisory Committee within ten days after the end of lectures. One copy of the thesis will be filed with the Departmental Office.

(k) A completed ISS Evaluation Form will be appended to each ISS thesis.

4. Students completing CHEM 483-15 may not take CHEM 481-5 or another ISS course as part of the 120 or 132 hours of their degree programme.

David Ryeburn

CHEMISTRY 483-15 INDIVIDUAL STUDY SEMESTER EVALUATION FORM

The Individual Study Semester is intended to provide a valuable learning experience for the student. The research effort may result in publishable material, but this must not be seen as the primary aim of the ISS.

1. Describe the extent to which the Research Proposal was student or supervisor originated.
2. Describe the student's initiative in self preparation (theoretical knowledge and practical skills) for the chosen research topic.
3. Describe the student's ability to relate his background knowledge to his research problems.
4. Describe the advancement of the student, in terms of new theoretical principles, new knowledge and new skills, resulting from ISS.
5. Describe the aptitude of the student, in terms of motivation, initiative and originality.
6. Describe particular difficulties associated with the project, their origin, their effect upon the ISS, and the student's approach to such difficulties.
7. Grade awarded: _____
8. Signatures: Senior Supervisor: _____
Associate Supervisor: _____
Department Chairman : _____

SIMON FRASER UNIVERSITY

MEMORANDUM

To Dr. D. Birch
Associate Vice President Academic

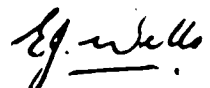
From E.J. Wells
Chairman, Chemistry Department

Subject Chem 483-15 - Individual Study Semester Date November 12, 1976

Thank you for your note concerning SCUS's actions on our submission of this subject. I understand that the new course has been approved and will be submitted to Senate but that SCUS took exception to the restriction concerning financial remuneration for this work.

The matter of financial remuneration is a much broader one than its applications to our Individual Study Semester, and we would appreciate it if discussion on this could be decoupled from approval for 483. Thus, we ask that the papers relevant to 483 be forwarded now to Senate for approval and that we initiate a more general discussion on the question of financial remuneration for undergraduate work toward a degree. I would be grateful if we could impose on your time to attend the next Chemistry Department meeting (to be arranged) so that you could convey the feelings of SCUS on this matter; and in return, hear the concerns of individuals in this Department.

This course of action is agreeable to those members of the Undergraduate Studies Committee whom I have been able to contact.



E.J. Wells

cc: Dr. J. Webster
Dr. L. Peterson

EJW:mc

cc. H. Evans