

SIMON FRASER UNIVERSITY

MEMORANDUM

S.76-159

To SENATE

From Senate Committee on Undergraduate Studies

Subject Course and Program changes -
Computing Science

Date 18th November, 1976

Action taken by the Senate Committee on Undergraduate Studies Committee at its meeting of 26th October, 1976 gives rise to the following motion:

MOTION

That Senate approve, and recommend approval by the Board of Governors, the Calendar changes for Computing Science as set forth in paper S.76-159.

Note SCUS recommends that the Calendar changes be approved en bloc following discussion of the individual changes which include a title change, course description change, prerequisite change, dis-continuation of a course, and changes to honors, major, and minor program requirements.


Daniel R. Birch

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SIMON FRASER UNIVERSITY

MEMORANDUM

SCUS 76-38
edited, revised to
Oct. 26/76

To Mrs. J. Blanchet, Secretary
I.D.S. Curriculum Committee

From James J. Weinkam, Chairman
Computing Science Curriculum Committee

Subject COMPUTING SCIENCE PROGRAM CHANGES

Date September 27, 1976

Attached are the changes in the Computing Science program requirements which have been approved by the Computing Science Curriculum Committee and also by the entire department at its meeting on September 23, 1976.

The main theme of these changes is towards a simplification of the course requirements for both majors and honors students in Computing Science. The present group requirements have continued to impose stringent and, for some, unsatisfiable constraints on the choice of upper division courses while maintaining a progressively less relevant partition among these courses. The elimination of the group requirements does not compromise their original intent of securing adequate breadth and depth since students are still required to pursue the core sequence to the 400 level and any combination of 30 hours of upper division credit will give adequate breadth.

The modification also makes explicit a number of requirements which, although implicit in the earlier formulation, were hidden in the underlying prerequisite structure. In particular, we have uncovered and acknowledged a core sequence which carries to the 400 level. In addition, we have made explicit the place of the Practicum (CMPT 411, 412, 413), Colloquium (493, 494) and Special Research Project courses (415, 416) in the course requirements.

In addition to the changes in the program requirements, the Curriculum Committee has approved the following changes in prerequisites, course titles, course descriptions:-

CMPT 105-3 CHANGE TITLE FROM "INTRODUCTION TO COMPUTING" TO "FUNDAMENTAL CONCEPTS OF COMPUTING"

Rationale: This change brings the title more into line with the calendar description of the course and indicates more clearly to students the nature of the course.

CMPT 200-4 DROP FROM CALENDAR

Rationale: This course has never been offered. In two attempts it attracted insufficient enrolment and was cancelled. There does not appear to be sufficient demand to warrant keeping this course in the calendar.

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CMPT 400-3 CHANGE PREREQUISITE FROM CMPT 302 TO CMPT 301

Rationale: The material in the CMPT 301-302 sequence which serves as a prerequisite for the CMPT 400-401 sequence is covered entirely in CMPT 301. This change will break a long chain of consecutive courses and simplify scheduling for students.

CMPT 362-4 CHANGE CALENDAR DESCRIPTION (see attached)

Rationale: The old description refers to specific CAI languages which are no longer supported on campus and gives the erroneous impression that the course is entirely concerned with computer assisted instruction. The revised description avoids mention of specific languages and in addition mentions other material covered in the course.

JJW:ek
Enc.

pages 268, 269, 270 ^{Delete} The following

Lower Division Course Requirements

Students who plan to major or take honors in Computing Science normally should obtain credit for the following lower division courses in the first four levels.

1. CMPT 103-3, 105-3.
2. Three credits in Computing Projects in the Arts and Sciences.
3. CMPT 201-4.
4. CMPT 260-3.

NOTE* In the new version these requirements apply as well for minors since CMPT 200 is being dropped from the calendar.

For the Majors Program in Computing Science the student must have a minimum of:

	Semester Hours
(a) Five courses from Group A	at least 15
(b) One course from Group B	3
(c) Two courses from Group C	at least 6
(d) Two courses from Group C	at least 6
Total must be at least 30	

Note: The General Degree requires a minimum of 120 semester hours, of which at least 45 must be in upper division courses. Further upper division electives must be taken to fulfil this minimum.

For the Honors program in Computing Science the student must have a minimum of:

	Semester Hours
(a) Five courses from Group A	at least 15
(b) Two courses from Group B	6
(c) Four courses from Group C	at least 12
(d) Five courses from Group D	at least 15
Total must be at least 50	

Note: The Honors Degree requires a minimum of 132 semester hours, of which at least 60 must be in upper division courses. Further upper division electives must be taken to fulfil this minimum.

Group A — CMPT 301-3, 302-3, 400-3, 401-3, 415-3, 416-5, 418-3, 419-5.

Group B — MATH 306-3, 316-3, 401-3, 402-3, 403-3.

Group C — CMPT 305-3, 351-3, 354-3, 370-3, 404-4.

Group D — CMPT 371-3, 380-3, 390-3, 410-4, 451-3, 491-3.

Insert
the following

LOWER DIVISION COURSE REQUIREMENTS

Students who plan to undertake a major, minor, or honors in Computing Science normally should obtain credit for the following lower division courses:

1. CMPT 103-3, 105-3.
2. Three credits in Computing Projects in the Arts and Sciences.
3. CMPT 201-4.
4. CMPT 260-3.

REQUIREMENTS FOR A MAJOR IN COMPUTING SCIENCE

Attention is drawn to the lower division courses stated above.

- (a) At least 30 hours of upper division Computing Science courses including CMPT 301, 400, and 493 and excluding CMPT 411, 412, 413, and 416.
- (b) A concentration in some subject other than Computing Science, approved by a program advisor, consisting of at least 15 semester hours, and including at least 6 hours of upper division credit.

Students are advised to consult the University and Faculty regulations governing graduation requirements which are specified elsewhere in the calendar.

REQUIREMENTS FOR HONORS IN COMPUTING SCIENCE

Attention is drawn to the lower division courses stated above.

- (a) At least 50 hours of upper division Computing Science courses including CMPT 301, 400, and 493 and excluding CMPT 412 and 413.
- (b) A concentration in some subject other than Computing Science, approved by a program adviser, consisting of at least 15 semester hours, and including at least 6 hours of upper division credit.

Students are advised to consult the University and Faculty regulations governing graduation requirements which are specified elsewhere in the calendar.

Delete

Pages 270, 271 - The following

Degree

Students may obtain a B.Sc. or a B.A. depending on the direction of their concentration and content of their overall program. (There are two plans leading to a B.A., one to a humanities and one to a business oriented degree.) All programs have to be approved by a program adviser.

Plan A: B.Sc.

Students wishing to obtain a B.Sc. must complete at least 15 credit hours approved by a program adviser in a natural or social science or in mathematics, of which six credit hours must be in upper division courses. Their choice of Computing Science courses must include CMPT 390-3, 410-4, 451-3, 491-3 and either MATH 316-3 or 402-3. Students wishing to obtain an honors degree in addition must complete a research project in a Science, Mathematics, or Computing Science related topic for at least three credits (CMPT 415-3).

Plan B: B.A. (Relating to Humanistic Studies)

Students wishing to obtain a B.A. under Plan B must complete at least 15 credit hours approved by a program adviser in a humanistic concentration of which at least six hours must be in upper division courses. Their choice of Computing Science courses must include CMPT 290-3 or 390-3, CMPT 351-3, 354-3, 380-3, 410-4 and at least five credit hours in a creative project (CMPT 416-5). Students wishing to obtain an honors degree in addition must complete eight hours of special projects (CMPT 415-3 and 416-5). Students in this program will have their possible needs in Mathematics especially evaluated.

Plan C: B.A. (Relating to Commerce and Economics)

Students wishing to obtain a B.A. under Plan C must complete at least 15 credit hours approved by a program adviser in Economics and Commerce, of

which at least six hours must be in upper division courses. Their choice of Computing Science courses must include CMPT 290-3 or 390-3; and CMPT 302-3, 305-3, 371-3 and CMPT 404-4. Students who wish to obtain an honors degree in addition must complete a research project in a business or economics related topic for at least three credits (CMPT 415-3).

Minor Programs

Students majoring or obtaining an honors degree in any field in the Arts or Sciences may combine their study with a minor concentration in Computing Science. Students must discuss their program with a program adviser before registering for courses.

The following lower division courses are required for undergraduate minors in Computing Science: CMPT 103-3, 105-3, at least two credits in Computing Projects in the Arts and Sciences, either CMPT 200-4 or 201-4, and CMPT 260-3.

Students minoring in Computing Science must complete at least 15 credits in upper division courses.

DEGREE

Insert
the following

Students may obtain a B.Sc. or a B.A. depending on the direction of their concentration and content of their overall program. The degree awarded will be determined in consultation with a faculty adviser.

EXAMPLE PROGRAMS

B.Sc.

The fifteen hour concentration must be in a natural or social science or mathematics. The choice of upper division Computing Science courses (beyond those explicitly required) might consist of sequences such as CMPT 305, 351, 354, 360, 390, 451, 491, and MATH 316 and 401, for a student with an interest in experimental or applied science or CMPT 351, 354, 401, 410, 451, and MATH 306, 401, and 402, for a student with more theoretical interests. Other similar course sequences can be chosen depending on individual interest.

B.A.

The fifteen hour concentration may be in any area. The choice of upper division Computing Science Courses (beyond those explicitly required) might consist of sequences such as CMPT 302, 351, 354, 370, 371, and three courses chosen from CMPT 305, 350, 360, 404, 451, and MATH 316, for students with an interest in Commercial Applications or CMPT 351, 354, 360, 380, 410, 451, MATH 306, and either CMPT 305, 350, 401, or MATH 402, for a student interested in Humanistic Applications. Similar sequences can be tailored to meet the individual needs of students with interests in other areas.

REQUIREMENTS FOR A MINOR IN COMPUTING SCIENCE

Attention is drawn to the lower division courses stated above. Students minoring in Computing Science must complete at least 15 credits of upper division Computing Science courses, excluding CMPT 411, 412, 413, 415 and 416.

CHANGE CALENDAR DESCRIPTION
SENATE COMMITTEE ON UNDERGRADUATE STUDIES
COURSE PROPOSAL FORM

*Description change,
Prerequisite change
only*

1. Calendar Information

Department: COMPUTING SCIENCE

Abbreviation Code: CMPT Course Number: 362 Credit Hours: 4 Vector: 3-1-0

Title of Course: EDUCATIONAL USES OF COMPUTERS

Calendar Description of Course:

The course will be concerned with aspects of the teaching of computer related topics and applications of computers at elementary and secondary school levels.

There will be consideration, in the context of the availability of various general types of computer facility, of topics such as: the position and teaching of computer literacy and computing science in schools; applications of computers in other subject areas; computer assisted learning; and aspects of the role of computing in educational administration.

Prerequisites (or special instructions): CMPT 105-3 and some course in Education, or permission of the Department.

What course (courses), if any, is being dropped from the calendar if this course is approved:

2. Scheduling

How frequently will the course be offered?

Semester in which the course will first be offered?

Which of your present faculty would be available to make the proposed offering possible?

3. Objectives of the Course

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

- Faculty
- Staff
- Library
- Audio Visual
- Space
- Equipment

5. Approval

Date: 4/10/76 40d 76

T. S. Staley
Department Chairman

RC Brown
Dean

Chairman, SCUS