

SIMON FRASER UNIVERSITY

S.79-136

MEMORANDUM

To Senate

From Senate Committee on

Undergraduate Studies

Subject Curriculum Changes - Computing
Science

Date 1979-11-15

Action taken by the Senate Committee on Undergraduate Studies at its meeting on November 6, 1979 gives rise to the following Motion:

MOTION

That Senate approve and recommend approval to the Board, as set forth in S.79-136, the proposed changes in Computing Science as follows:

- (i) New course CMPT 483-4 Compiler Construction
- (ii) Course Upgrade CMPT 340-3 Computers in Biomedicine (formerly CMPT 240-3 to be dropped)
- (iii) Change in credits CMPT 291-4 Analogue and Digital Circuits (formerly 3 credits)
- (iv) (1) Change in program requirements
(2) Requirement of grade of C- or higher in any prerequisite course for Computing Science courses

Note - Should the new courses be approved, SCUS has waived the time lag requirements to permit first offering of CMPT 483-4 in Summer - 80-2.

The Computing Science Department had initially proposed a requirement of a grade of C or higher in any prerequisite course for Computing Science courses. The objective is to ensure an adequate background on the part of students so that instruction can be pitched at an appropriate level. Prior to consideration by SCUS the Department agreed to adjust its recommendation to require a minimum grade of C-, the lowest mark identified as a "satisfactory" grade.

For Information:

Under its delegated authority SCUS approved changes to Computing Science courses as follows:

(v) Changes to courses

CMPT 103-3	Introduction to a High Level Programming Language 1, Description
CMPT 104-1	Introduction to a High Level Programming Language 11, Description
CMPT 354-3	Title, Description
CMPT 370-3	Title, Description
CMPT 371-3	Title, Description
CMPT 105-3	Fundamental Concepts of Computing, Prerequisite
CMPT 351-3	Computer Graphics, Prerequisite



Daniel R. Birch
Chairman

/csg

MEMORANDUM

Mr. H.M. Evans, Registrar and Secretary of SCUS	From Janet Blanchet, Secretary to the Faculty of Interdisciplinary Studies Undergraduate Curriculum Committee
Subject Curriculum Changes - Computing Science Department I.S.C. 79-16	Date October 24, 1979

The attached Calendar Changes for the Computing Science Department were approved at a meeting of the Faculty of Interdisciplinary Studies Undergraduate Curriculum Committee on October 23, 1979.

Would you please place this item on the agenda for the next meeting of the Senate Committee on Undergraduate Studies.

Janet Blanchet
Janet Blanchet

JB:jk

Attachments

For over lap Oct 18/79
Add cmpt 340-3, drop cmpt 240-2
note mainer (late) request for cmpt 483-4

Some items for senate action
some items for SCUS action, Senate info mat.

SIMON FRASER UNIVERSITY

MEMORANDUM

To Undergraduate Curriculum Committee
Faculty of Interdisciplinary Studies
Subject 1980-81 Calendar Changes

From Wo-Shun Luk, Chairman
Computing Science UCC
Date 16 October 1979 ISC 79-16

Attached please find a set of proposals for new courses and other calendar changes concerning the Computing Science undergraduate curriculum. The reasons for these changes are provided as follows:

1. New Course

Senate

CMPT 483-4 (Compiler Construction) was taught as a special topic course (CMPT 418) in the Spring this year in an effort to strengthen our course offerings in the area of programming languages. In converting it into one of our regular courses, considerations have been given to the heavy workload of the course especially with course project to design and implement a working compiler for a simple language. It is on this basis that four credits are assigned to this course.

2. Course Upgrade

Senate

The upgrade of CMPT 240-3 (Computers in Life Sciences) to CMPT 340-3 (Computers in Biomedicine) is necessary because the fact that it is a lower division course makes it unattractive to Computing Science students and upper and graduate students in Psychology, Bioscience and Kinesiology.

3. Revisions of Course Title and/or Descriptions

Scus

a) CMPT 103-3 and 104-1 are now described as lecture courses on the calendar. Their course descriptions are rewritten to emphasize the fact that they are actually guided, self-study courses, as they have been so for a long time.

b) The changes on CMPT 354-3, 370-3 and 371-3 represent a re-organization of courses in the area of information systems. Up until now, the calendar descriptions of these courses often overlap, explicitly or implicitly with each other and some are incompatible with what the corresponding course titles normally suggests to most of the people. This situation has become very confusing to the students and the instructors alike and should therefore be rectified. The changes proposed also reflect the rapidly evolving computing technology in the recent years. Concepts of data base management systems, computer network and distributed processing not only occupy a central role in the area of information systems but are also part of the main-stream computer science.

4. Prerequisite Changes

Scus

a) CMPT 103-3 should be the prerequisite of CMPT 105-3, which has none at present, to ensure that the students enrolled in CMPT 105-3 have basic programming concepts.

4. Prerequisite Changes continued

Senatus

b) MATH 232-3 (Elementary Linear Algebra) joins CMPT 201-4 as the prerequisites for CMPT 351-3 (Computer Graphics).

5. Credit Changes

Senatus
(3/1/80)

Four credits are assigned to CMPT 291-3 to take into consideration the heavy lab work required. Note that other departments like Department of Physics splits courses of similar nature into two parts (Lecture and Lab) with 3 credits for each.

6. Degree Regulations

Senate

a) MATH 104-3 (Introduction to Computational Methods) is a required course in the lower division for Computing Science majors and honours in the belief that every student of Computing Science should be exposed to scientific computing. *Add this course to the list on page 275 of calendar*

b) A student may not be allowed to enrol in any Computing Science course for which a grade of **D** or lower was obtained for any prerequisite. Note that other science departments like Chemistry and Mathematics have similar practice.

:ei

Attachments



SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

Calendar Information

Department: COMPUTING SCIENCE

Abbreviation Code: CMPT Course Number: 483 Credit Hours: 4 Vector: 3-0-2

Title of Course: COMPILER CONSTRUCTION

Description of Course: This course covers the theoretical and practical aspects of compiler design and implementation. Topics include analysis of the structure of high level languages, lexical analysis, parsing, translation, code generation, optimization, runtime environments and error handling. Students will design and implement a working compiler for a simple language as a course project.

Course LECTURE/LAB

(or special instructions):

CMPT 201, 205, 283, MATH 306.

(courses), if any, is being dropped from the calendar if this course is
NONE

2. Scheduling

How frequently will the course be offered? At least once a year.

Semester in which the course will first be offered? ~~80-1~~ 80-2

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

J. J. WEINKAM

3. Objectives of the Course

To introduce the basic theory of programming language translation and compiler design, as well as some of the practical aspects of implementation. Students will develop a working compiler for a simple block-structured language as part of the course.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty NONE

Staff TEACHING ASSISTANT (1/2)

Library NONE

Audio Visual NONE

Space NONE

Equipment NONE. COMPUTING RESOURCES TYPICAL FOR PROJECT ORIENTED COMPUTING COURSES ON MTS OR OS SYSTEM.

5. Approval

Date: Oct. 9, 1979.

22 Oct 79

J. J. Weinkam
Department Chairman

J. W. Albert
Dean

Chairman, SCUS

COMPILER CONSTRUCTIONSYLLABUS% Emphasis

5%	OVERVIEW OF COMPILERS Translation of Languages Structure of a Compiler Lexical Analysis, syntactic analysis, intermediate code, optimization, code generation, error handling.
10%	PROGRAMMING LANGUAGES Structure of High-Level Programming Languages Lexical Structure Syntactic Structure Data Structures Primitive Operations Run-time Environments
10%	LEXICAL ANALYSIS Finite Automata and Regular Expressions Recognizers for Practical Programming Languages
20%	SYNTACTIC ANALYSIS Context-Free Grammars Derivations of Parse Trees Parsing Bottom-Up Methods Top-Down Methods Deterministic Methods
20%	SYNTAX-DIRECTED TRANSLATION Syntax-directed Methods Sequential/Parallel Methods Intermediate Code Postfix Form Triples
20%	TRANSLATION OF HIGH-LEVEL CONSTRUCTIONS Expressions Assignment Booleans Declarations Arrays Procedure Calls Scoping Control Structure
10%	RUN-TIME ENVIRONMENTS Storage Management I/O Support Debugging Facilities Library Support Error Handling
5%	OPTIMIZATION & CODE GENERATION Register Allocation Data Flow Analysis Object Programs External Linkage

TEXT

Aho, A.V. and Ullman, J.D.; Principles of Compiler Design;
Addison-Wesley, 1977.

RECOMMENDED READING

Weingarten, F.W.; Translation of Computer Languages;
Holden-Day, Inc., 1973.

Gries, David; Compiler Construction for Digital Computers;
John Wiley & Sons, Inc., N.Y., 1971.

Lewis II, P.M., Rosenkrantz, D.J. and Stearns, R.E.; Compiler
Design Theory, Addison-Wesley, 1976.

Aho, A.V., and Ullman, J.D.; The Theory of Parsing, Translation,
and Compiling, Vols. I & II, Prentice-Hall, 1972.

Waiver

A special topic course on Compiler Construction was offered during the 75-1 semester by Dr. Havens. At that time it was announced to students that another offering as a special topic would be made in 80-1 and that a proposal for a permanent course would be made. Experience gained in the special topic offering indicates that the workload of the course is out of proportion with three units of academic credit. Accordingly the attached proposal is for a four credit course. The department would like to request a waiver of the normal two semester time lag to permit CMPT 483-4 to be offered in 80-1 in lieu of the offering of CMPT 418-3 (Compiler Construction) currently scheduled.

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SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 340 Credit Hours: 3 Vector: 3-0-0

Title of Course: Computers in Biomedicine

Calendar Description of Course: The principles involved in using computers for data acquisition, real time processing, pattern recognition and experimental control in biology and medicine will be developed. The use of large data bases and simulation will be explored.

CMPT 240-3 and Math 134 is desirable.

Nature of Course Lecture

Prerequisites (or special instructions): Completion of 60 credits including CMPT 103 and two appropriate courses in the life sciences (Bisc, K.A. App). Completion of *Students with credit in CMPT 240-3 may not take this course for further credit.*

What course (courses), if any, is being dropped from the calendar if this course is approved: CMPT 240-3

2. Scheduling

How frequently will the course be offered? Annually or biannually

Semester in which the course will first be offered? 81-3

Which of your present faculty would be available to make the proposed offering possible? Calvert, Sterling, Weinkam

3. Objectives of the Course

To provide both life science students and computing science students with an introduction to the problems involved in using computers in biology, physiology, psychology, medicine and health care delivery.

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	None

5. Approval

Date: James H. Smith

23 Oct 79

NOV 6 '79

10/16/79
Department Chairman

Calvert
Dean

Van K. Bine
Chairman, SCUS

This course is designed to provide both life science students and computing science students with an introduction to the problems involved in using computers in biology, physiology, psychology, medicine and health care delivery.

Outline

1. The acquisition of information

Principles involved in sampling
One dimensional signals (ECG, EMG, EEG, etc.)
Images (microscopy, radiology, etc.)
Architectures for real-time acquisition
(microprocessors, minicomputers, etc.)

2. Real time processing and editing

Event detection
Digital filtering
Image processing
Clinical monitoring
Special hardware and displays

3. Classification and recognition of patterns

One dimensional signals (ECG, EEG, etc.)
Images (x-rays, microscope slides, chromosomes, etc.)
Syntactic approaches to pattern recognition
Medical screening and diagnosis

4. The use of large data bases

Organization of data
Statistical analyses
Medical record systems

5. Computer models and simulation

Neural network models
Physiological models (respiration, thermal, neuromuscular)
Ecological models
Simulation in education (Nutritional, Thermal and McMaster University systems)

9

6. Selected special applications

Computers in radiology -- dosage determination
 Computerized axial tomography (VGH)
 Decompression computer

Students will be involved in assignments and projects with real data and will visit a number of installations at SFU and in Vancouver.

Prerequisites:

Completion of 60 credits including CMPT 103 and two appropriate courses in the life sciences are essential (e.g. Biosciences, Kinesiology, Psychology). It is desirable that students have completed CMPT 118 (or CMPT 142) and one calculus course (MATH 154).

Text:

W.J. Perkins (ed), Biomedical Computing, Tunbridge Wells: Pitman Medical, 1977.

References:

Books:

R.J. Bibbero, Microprocessors in Instruments and Control, Wiley, 1977.

J. Anderson (ed)., Lecture Notes in Medical Informatics, Vol. 1., Springer Verlag, 1978.

Journals:

IEEE Transactions on Biomedical Engineering

Computers in Biology and Medicine

Computing Programs in Biomedicine

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

Credit Change

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 291 Credit Hours: 4 Vector: 3-0-3

Title of Course: Analogue and Digital Circuits

Calendar Description of Course:

Nature of Course

Prerequisites (or special instructions):

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: 10/16/79

33 Oct 79

6 79

James J. Burke
Department Chairman

J. J. Burke
Dean

J. J. Burke
Chairman, SCUS

SIMON FRASER UNIVERSITY

MEMORANDUM

SCUS 79-35
Ofus 30/10/79.
Senate 3/11/79.

H. M. Evans, Registrar and

Secretary of SCUS

Subject: *Curriculum* Changes - Communication,
I.S.C. 79-8; and Revised Course

From: Janet Blanchet, Secretary of the Faculty
of Interdisciplinary Studies Undergraduate
Curriculum Committee

Date: October 17, 1979

Proposal CMNS 437, I.S.C. 79-9.

The attached *undergraduate curriculum* changes for the Department of Communication, I.S.C. 79-8, and the attached revisions to CMNS 437, Media, Education and Children, I.S.C. 79-9, were approved at a meeting of the Faculty of Interdisciplinary Studies Undergraduate Curriculum Committee on October 9, 1979.

Would you please place these items on the agenda for the next meeting of the Senate Committee on Undergraduate Studies?

J. Blanchet

Janet Blanchet

JK:lch

Attachments

RECEIVED

OCT 18 1979

REGISTRAR'S OFFICE
MAIL DESK

*Note: This proposal was approved by Ofus under its
delegated authority but inadvertently omitted from
transmittal to Senate meeting of 3/11/79.*

SIMON FRASER UNIVERSITY

15C 79-9

MEMORANDUM

To See distribution below.

From Rowland Lorimer, Undergraduate Studies

Chairman, Department of Communication

Subject Revised Communication course
proposal CMNS 437-5 formerly

Date October 2, 1979

*CMNS 437-5 Communication and Community Advocacy
Change Title, Description, Prerequisite*

I attach a proposal for a revised Communication course "Media, Education and Children" which has been developed by Professor Rowland Lorimer. The course will be considered at the next meeting of the Faculty of Interdisciplinary Studies Undergraduate Curriculum Committee. It is being circulated to you for information and possible consideration of overlap. The course as revised represents a greater specialization and complements our other offerings more satisfactorily than does the previous description.

Rowland Lorimer

RL:ka

Distribution:

C. Kemp, Faculty of Science Curriculum Committee Chairman
W. Roberts, Faculty of Arts Curriculum Committee Chairman
M. Wideen, Faculty of Education Curriculum Committee Chairman

cc: J. Dickinson, Faculty of Interdisciplinary Studies
Undergraduate Curriculum Committee Chairman
H. Evans, Registrar and Secretary of the Senate Committee
on Undergraduate Studies

Encl.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

CHANGE OF TITLE, EDITING OF
DESCRIPTION & CHANGE IN PREREQUISITES
Department: Communications

Calendar Information

Abbreviation Code: CMNS Course Number: 437 Credit Hours: 5 Vector: 3-2-0

Title of Course: (new) Media, Education and Children

Calendar Description of Course: (changes underlined)

An analysis of how the print media and associated media and institutions (eg. schools) serve children. The roles provided and portrayed by these media/institutions will be discussed in terms of their organizational characteristics and the set of interests they reflect. The characteristics of non-educational media such as comics will be contrasted to the educational media.

Nature of Course

Seminar

Prerequisites (or special instructions):

CMNS 230; at least 60 credit hours

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

This is a course change only.

2. Scheduling

How frequently will the course be offered? once a year

Semester in which the course will first be offered? presently being offered Fall 1979

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

Lorimer

Objectives of the Course

To develop a communications perspective of the Canadian educational process. In so doing it will be illustrated how education conforms to the same constraints as other knowledge and cultural industries.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty

Staff

Library

None

Audio Visual

Space

Equipment

5. Approval

Date: 2/1/79

[Signature]
Department Chairman

Dean

Chairman, SCUS

COMMUNICATION 437

Media, Education and Children

This course was originally developed as "Communication and Community Advocacy" when a major revision to the undergraduate program was undertaken and the name of the department changed to Communication Studies. Since that time a great number of courses have developed. With these additions it has become no longer necessary for the course to serve such a general function, i.e., the analysis of the various interest of specific communities within the context of other specific communities or interest groups and the general community. As a result in the recent past the course has concentrated on providing the type of analysis outlined in this proposal. This request for change is a request to allow the course to maintain the developed specific focus which has been typical of its recent structure.

General Course Outline

Weeks 1 - 3 Media and Thought

Readings: The Paedogogy of the Oppressed, Paulo Freire
"The Consequences of Literacy", Jack Goody and Ian Watt in Literacy in Traditional Societies (Ed.) Jack Goody
Cultural Action for Freedom, Paulo Freire
"The Language of Experience: On Natural Language and Formal Education", Bulletin of the British Psychological Society, 1975, 28, 363-373. D. Olson
"An Orientation to Literacy", Rowland Lorimer

In this opening section of the course the tendency of the dominant media of the culture to form the basic structure for thinking will be explored. The work by Goody and Olson examine this phenomenon at the level of the individual. Lorimer and Goody provide an extension of the individual characteristics of thought into the cultural sphere. Freire takes the cultural level as his primary focus and works back to the implications his analysis has for basic literacy training techniques.

Weeks 4 - 7 Canadian Education as a Cultural Communications System

Readings: The Politics of the Canadian Public School (Ed.) G. Martell
The Report of the External Examiners of the Organization of Economic Cooperation and Development on Canadian Education, OECD or Canadian Society of Adult Educators
The Politics of Canadian Education, CSSE Yearbook, 1977, J.H.A. Wallin

This section of the course is a macro view of education in Canada. As such it explores the roots of the institution and its processes relating them to the basic industrial organization of Canadian society and to the specific interplay of

various interest groups within Canada. What is stressed is the role which education plays as an official transmitter of culture to the next generation.

Weeks 8 - 11

The Content of the Curriculum

Readings: What Culture? What Heritage?, A.B. Hodgetts
Teaching Prejudice, McDiarmid and Pratt
The Other Guides to Language Patterns, R. Lorimer
Canadian History Textbooks, Trudel and Jain
Where We Live, Martell, Wile and Sheppard
The Elements Series, Peter Carver
"Consider Content", R. Lorimer in Interchange
"Sex Role Stereotyping", Interchange, R. Lorimer
"Your Canadian Reader", Lighthouse, R. Lorimer
"Publishing and the Canadian Content of Readers",
Orbit, R. Lorimer

This third section details the overall ideas which are presented for examination and emulation in various subject areas but specifically in Language Arts and Social Studies. These values are discussed in terms of their representativeness of the values of specific groups, eg. the middle class, America as opposed to Canadian mainstream culture, the groups from which students come and the publishing industry. In general the values are examined for the accuracy with which they reflect the interests and points of view inherent in Canadian culture.

Weeks 12 - 13

Looking Beyond Education

Readings: How to Read Donald Duck, Mattelart and Dorfman
Meecology, MacDonald's Corporation
Big Mac, Boas and Chain

The final section of the course will look at what material is prepared for children outside the educational establishment. What passes for universal humanism and responsible corporate citizenship will be examined as merchandizing for consumer values. The connection between knowledge consumables and other cultural consumables will be compared to the merchandizing of such products as food. Media arrangements such as subsidized informational packages, free loan materials and tied in products will be examined for the sets of interests they serve.

Registrar and From Janet Blanchet
SIMON FRASER UNIVERSITY

MEMORANDUM

To Undergraduate Curriculum Committee
Faculty of Interdisciplinary Studies
Subject 1980-81 Calendar Changes

From Wo-Shun Luk, Chairman
Computing Science UCC
Date 16 October 1979

SCUS 79-424

ISC 79-16

Attached please find a set of proposals for new courses and other calendar changes concerning the Computing Science undergraduate curriculum. The reasons for these changes are provided as follows:

1. New Course

CMPT 483-4 (Compiler Construction) was taught as a special topic course (CMPT 418) in the Spring this year in an effort to strengthen our course offerings in the area of programming languages. In converting it into one of our regular courses, considerations have been given to the heavy workload of the course especially with course project to design and implement a working compiler for a simple language. It is on this basis that four credits are assigned to this course.

Senate

2. Course Upgrade

The upgrade of CMPT 240-3 (Computers in Life Sciences) to CMPT 340-3 (Computers in Biomedicine) is necessary because the fact that it is a lower division course makes it unattractive to Computing Science students and upper and graduate students in Psychology, Bioscience and Kinesiology.

Senate

3. Revisions of Course Title and/or Descriptions

a) CMPT 103-3 and 104-1 are now described as lecture courses on the calendar. Their course descriptions are rewritten to emphasize the fact that they are actually guided, self-study courses, as they have been so for a long time.

b) The changes on CMPT 354-3, 370-3 and 371-3 represent a re-organization of courses in the area of information systems. Up until now, the calendar descriptions of these courses often overlap, explicitly or implicitly with each other and some are incompatible with what the corresponding course titles normally suggests to most of the people. This situation has become very confusing to the students and the instructors alike and should therefore be rectified. The changes proposed also reflect the rapidly evolving computing technology in the recent years. Concepts of data base management systems, computer network and distributed processing not only occupy a central role in the area of information systems but are also part of the main-stream computer science.

SCUS

4. Prerequisite Changes

a) CMPT 103-3 should be the prerequisite of CMPT 105-3, which has none at present, to ensure that the students enrolled in CMPT 105-3 have basic programming concepts.

SCUS

4. Prerequisite Changes continued

b) MATH 232-3 (Elementary Linear Algebra) joins CMPT 201-4 as the prerequisites for CMPT 351-3 (Computer Graphics).

Scus

5. Credit Changes

Four credits are assigned to CMPT 291-3 to take into consideration the heavy lab work required. Note that other departments like Department of Physics splits courses of similar nature into two parts (Lecture and Lab) with 3 credits for each.

Senate
(Scus)

6. Degree Regulations

a) MATH 104-3 (Introduction to Computational Methods) is a required course in the lower division for Computing Science majors and honours in the belief that every student of Computing Science should be exposed to scientific computing. Add this course to the list on page 298 of Calendar

Senate

b) A student may not be allowed to enrol in any Computing Science course for which a grade of D or lower was obtained for any prerequisite. Note that other science departments like Chemistry and Mathematics have similar practice.

:el

Attachments

[Handwritten signature]

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

~~NEW~~ COURSE PROPOSAL FORM

Course Description Change

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 103 Credit Hours: 3 Vector: 0-0-3

Title of Course: Introduction to a High Level Programming Language I

Calendar Description of Course:

This course introduces the student to ONE of the following languages: PL/1, COBOL, APL, PASCAL, FORTRAN and other languages subject to availabilities of necessary facilities. This is a guided self-study course. A text, self-study guide and mini lectures will be used to direct the student. The programming assignments

Nature of Course

(continued below)

Prerequisites (or special instructions):

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? once every semester

Semester in which the course will first be offered? ~~80-1~~ (80-3)

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

3. Objectives of the Course

CALENDAR DESCRIPTION continued

cover techniques such as looping, decision making, construction of subroutines, input/output handling and documentation. (continued below)

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

CALENDAR DESCRIPTION continued

The student should consult the program advisor for a list of currently available languages and for advise in selecting the language most suited to his/her program.

5. Approval

Date: 10/16/79

23 Oct 79

James M. Smith
Department Chairman

J. W. Bolser
Dean

[Signature]
Chairman, SCUS

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

Course Description Changes

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 104 Credit Hours: 1 Vector: 0-0-3

Title of Course: Introduction to a High Level Programming Language II

Calendar Description of Course:

This course is identical to CMPT 103-3 and is intended for the student who wishes to learn a second high level language under supervision and for academic credit. The student can only take this course once for credit. It is considerably easier to master a second high level language; therefore this course carries only one credit.

Prerequisites (or special instructions):

The student must select a different language from that studied in CMPT 103-3.

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? once every semester

Semester in which the course will first be offered? ~~80-1~~ (80-3)

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

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: 10/16/79

23 Oct 79

James J. Smith
Department Chairman

J. W. B. Burt
Dean

David R. Birch
Chairman, SCUS

Formerly "Proposed"
Organizational
Reformation

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM Course Title & Description Changes

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT **Course Number:** 354 **Credit Hours:** 3 **Vector:** 3-0-0

Title of Course: File and Database Structures

Calendar Description of Course:

Disk accesses. File organizations. Logical representations of data records. Data models. Studies of some popular file and database systems. Document retrieval. Other related issues such as database administration, data dictionary and security.

Nature of Course

Prerequisites (or special instructions):

CMPT 201-4

Students with credit for CMPT 354-3 under its former title may not take this course for further credit.

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? once or twice a year

Semester in which the course will first be offered?

Which of your present faculty would be available to make the proposed offering possible? W.S. Luk, D.A.R. Seeley, J.J. Weinkam

Objectives of the Course

To introduce the basic theory and current practices for designing software systems to manage large amounts of data and to derive information from the data.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty none
Staff ½ T.A.
Library none
Audio Visual none
Space none
Equipment none

5. Approval

Date: 10/16/79 23 Oct 79

James J. Weinkam
Department Chairman

J.W. Barrett
Dean

David R. Smith
Chairman, SCUS

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

~~NEW COURSE~~ PROPOSAL FORM

Course Title & Description Change

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 370 Credit Hours: 3 Vector: 3-0-0

Title of Course: Information System Design

Calendar Description of Course:

This course focuses on the computer related problems of information system design and procedures of design implementation. Well established design methodologies will be discussed, and case studies will be used to illustrate various techniques of system design.

Prerequisites of Course

Prerequisites (or special instructions):

Students with credit for CMPT 370-3 may not take this course for further credit

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? once or twice a year

Semester in which the course will first be offered? ~~80-1~~ 80-2

Which of your present faculty would be available to make the proposed offering possible? W.S. Luk

Objectives of the Course

To introduce methodologies regarding design of information systems and to provide up-to-date knowledge of techniques in software engineering.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty none

Staff 1/2 T.A.

Library none

Audio Visual none

Space none

Equipment none

5. Approval

Date: 10/16/79

23 Oct 79

James M. Smith
Department Chairman

T. A. D. West
Dean

[Signature]
Chairman, SCUS

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Formerly Management and Information Systems

~~NEW COURSE~~ PROPOSAL FORM

Course Title & Description Change

Calendar Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 371 Credit Hours: 3 Vector: 0-0-3

• of Course: Data Communications and Networking

Course Description of Course:

Fundamentals of telecommunications as related to data communications. Data communications software. Communications protocols. Network architecture. Distributed systems.

Prerequisites of Course

Prerequisites (or special instructions):

CMPT 201-4 and either CMPT 290-3 or CMPT 291-3. *Students with credit for CMPT 271-3 under its former title may not take this course for further credit.*
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? once or twice a year

Semester in which the course will first be offered? 80-3

Which of your present faculty would be available to make the proposed offering possible? W.S. Luk

Objectives of the Course

To provide basic theory of data/computer communication and knowledge of basic issues involved in distributed computing.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty none

Staff 1/2 T.A.

Library none

Audio Visual none

Space none

Equipment none

5. Approval

Date: 10/16/79 23 Oct 79

James J. Rubin
Department Chairman

J. A. Robert
Dean

[Signature]
Chairman, SCUS

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

Prerequisite Change

General Information

Department: Computing Science

Approval Code: CMPT Course Number: 105 Credit Hours: 3 Vector: 3-1-0

of Course: Fundamental Concepts of Computing

Description of Course:

of Course

Prerequisites (or special instructions):

CMPT 103-3

Which 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: 10/16/79

23 Oct 79

James J. White
Department Chairman

J. W. Bolser
Dean

[Signature]
Chairman, SCUS

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

~~NEW COURSE~~ PROPOSAL FORM

Prerequisite Change

For Information

Department: Computing Science

Abbreviation Code: CMPT Course Number: 351 Credit Hours: 3 Vector: 3-1-0

Title of Course: Introduction to Computer Graphics

Calendar Description of Course:

Nature of Course

Prerequisites (or special instructions):

CMPT 201-4 and MATH 232-3

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: 10/16/79 23 Oct 79

James H. Smith
Department Chairman

J. W. Robert
Dean

Chairman, SCUS