

S.73-146

SIMON FRASER UNIVERSITY

MEMORANDUM

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| To: SENATE | From: SENATE COMMITTEE ON UNDERGRADUATE STUDIES |
| FACULTY OF INTERDISCIPLINARY STUDIES | |
| Subject: - NEW COURSE PROPOSAL - COMMUNICATIONS | Date: NOVEMBER 15, 1973 |
| 223-3 233-3 - COMPUTERS AND COMMUNICATIONS | |

MOTION: "That Senate approve, as set forth in S.73-146, the new course proposal for Communication Studies ²³³⁻³~~223-3~~ - Computers and Communications."

S.73-146

SIMON FRASER UNIVERSITY

MEMORANDUM


To SENATE

From SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

Subject FACULTY OF INTERDISCIPLINARY STUDIES
NEW COURSE PROPOSAL - CMNS 233-3,
COMPUTERS AND COMMUNICATIONS

Date NOVEMBER 14, 1973.

On the recommendation of the Faculty of Interdisciplinary Studies, the Senate Committee on Undergraduate Studies has approved the new course proposal, - as set forth in SCUS 73-41 - for CMNS 233-3, Computers and Communications, and recommends approval to Senate.


I. Mugridge

HME:jb

SIMON FRASER UNIVERSITY

SCUS 73-41

MEMORANDUM

Mr. H. Evans,

Secretary of SCUS and Registrar.

From Dr. R. C. Brown, Dean,

Faculty of Interdisciplinary Studies.

Subject New Course Proposal for SCUS -

Date 17th October, 1973.

*FACULTY OF Interdisciplinary Studies -
CMNS 233.*

The attached new course proposal - CMNS 233 is forwarded to you for consideration by SCUS. Would you please place this on the agenda.

RCB/et
Enclosures

Robert C Brown

Robert C. Brown

RECEIVED
OCT 19 1973
REGISTRAR'S OFFICE
(Office Services)

Library:

Holdings would have to be updated and maintained, eg.. by the acquisition of proceedings of relevant conferences such as

The Royal Society of Canada Special Symposium on Communications Into the Home, Ottawa, 1972.

The IEE Conference on Man-Computer Interaction, 1970

The 3rd NRC Man-Computer Communications Seminar, Ottawa, May 1973

and the appropriate reports of the Department of Communications, the Trans-Canada Telephone System, MITRE Corporation and other agencies working in the area.

COMPUTERS AND COMMUNICATIONS

Course Outline

Introduction (4 lectures)

The Information Explosion: Growth of Telecommunications and Computer Facilities.

The Trends in Computer and Telecommunication Technology: integrated circuits, microprocessors, data networks, cable TV.

Reactions of Industry and Government: Telephone Systems and Government Department Studies.

Brief Survey of Current Systems.

Communications with the Computer (7 lectures)

Terminals: man-machine interface, human factors; types, keyboard, graphical, audio, etc.

Telecommunications: coding and modulation, channels and capabilities, performance and cost.

Computer interface: communications hardware and software, man-computer dialogs.

The Computer in Communications (2 lectures)

Switching, routing, resource allocation.
Computer networks and intelligent terminals.

Current Information Systems (8 lectures)

The Computer Utility, Time-shared computing.

Airline reservations and other "point-of-sale" transactional systems.

Management Information Systems and databank access.

Text preparation and printing.

Real-time remote control; rapid transit systems.

Multi-media computer-aided-learning systems.

Future Systems (5 lectures)

Interactive information retrieval, cable TV systems and the computer, computer-mediated teleconferencing. The Wired City.

COMPUTERS AND COMMUNICATIONS READING LIST

1. Instant World: A Report on Telecommunications in Canada. Information Canada. Ottawa, 1971.
2. Branching Out: Report of the Computer/Communications Task Force. Information Canada, Ottawa, 1972.
3. Communication. W.H. Freeman and Co. 1972.
4. Information. W. H. Freeman and Co. 1966.
5. Computer Usage Applications. E.A. Weiss (Ed) McGraw-Hill Book Company, 1970.
6. Telecommunications and the Computer. James Martin. Prentice-Hall, Inc. 1969.
7. Design of Man-Computer Dialogues. James Martin. Prentice-Hall, Inc. 1973.
8. Computers and Communications - Toward a Computer Utility. F. Gruenberger (Ed) Prentice-Hall, Inc. 1968.
9. The Computer Impact. I. Taviss (Ed). Prentice-Hall, Inc. 1970.
10. The Cybernetic Society. R. Parkman. Pergamon Press Inc. 1970.
11. Social Issues in Computing. C. C. Gotlieb and A. Borodin. Academic Press, Inc. 1973.
12. Current periodicals, articles, and reports, eg. Electronics, Datamation, Bell Labs Record, etc.

Communication Studies [REDACTED]
Title of Course: Computers and Communications

Calendar Description

An introduction to computer/communication systems. Topics include:
Introduction: trends in computer and communication technology; industrial and governmental activity; brief survey of existing systems. Communications technology: terminals for man-machine communications, types and characteristics; data communications, means and capabilities; requirements on computer hardware and software. The computer as a component in communication systems. Current systems: computer utilities; air-line reservations, banking, information systems; real-time remote control, etc. Future systems: universal information access and processing - the Wired City.

3a. Objectives of the Course.

The course is designed to provide the students interested in communications and computers with an introduction to the structure, capabilities, and applications of computer/communication information processing systems. The goal is to give students an understanding of the technology, costs, and uses of such systems so that they may be in a position to better judge the feasibility of proposed systems and their probable impact on Canadian society. As well, the course is intended to provide a basis from which future detailed studies in the area may proceed. As indicated by the attached Course Outline, the course deals with hardware and software aspects of communications with the computer; with the role of computers in communications; surveys several existing teleprocessing systems; and considers the possibilities for the future.

Students will be expected to develop sources of information, to write a program simulating some aspect of the subject, and to prepare a paper on a specific topic in the area.

3b. Relation of Course to Programs.

The technology of both computers and communications is developing at a remarkable pace, and it has been predicted that the information processing power provided through the marriage of telecommunications and the computer will cause profound social changes in the near future. Since both communications and computers are areas of study in the Faculty of Interdisciplinary Studies, it is appropriate that students be given the opportunity to study the nature, effects, and problems arising from systems composed of computers and communication. This course, which provides the basis from which such studies may

Communication Studies [REDACTED]
Title of Course: Computers and Communications

2.

3b. cont'd.

proceed, gives the communications student the ability to consider the computer as a communications medium and facilitator, and the computing science student to appreciate the role of teleprocessing.

It is appropriate that the opportunity be provided for students to pursue the unique opportunity afforded here by a Communication Studies program interested in human communications and the social effects and uses of media and a Computing Science Program which is interdisciplinary in outlook.

3c. Overlap with Other Courses.

Rather than overlap with others, this course is complementary to those concerned with technology and society such as CMPT 260, CMNS 230, and GEOG 001.