

SIMON FRASER UNIVERSITY

EDUCATION 482-4

DESIGNS FOR LEARNING: EDUCATIONAL USES OF COMPUTERS

Fall Semester, 1989
Mondays
4:30 - 8:20 p.m.
Location: MPX 8651

Instructor: David Bell
Office: MPX 8512
Phone: 291-4259

Prerequisites: Education 401/402 or equivalent.

Objectives

Recent developments in microelectronics have hastened the arrival of computers in the classroom. This course will examine the various ways that computers might influence the teaching-learning process and classroom management.

Students in this course will:

- a) develop competencies in the operation of microcomputers.
- b) develop skills related to the selection, evaluation and utilization of computer-based learning materials.
- c) develop an awareness of the ways computers can be used to support the instructional and administrative tasks of teachers.
- d) develop a critical awareness of the role of computers in society and the implication of this for education.

This is an introductory course in which students will develop a level of computer literacy sufficient for the intelligent and critical utilization of existing microcomputer hardware and software. It is not a course designed to prepare teachers to teach computing science courses nor will it prepare teachers to write computer-assisted learning material.

Outline of Topics

1. Operation of Microcomputers
 - a) components and their function
 - b) connecting peripheral devices
 - c) programs and programming
2. Modes of computer utilization
 - a) the computer as instructor
 - b) the computer as laboratory
 - c) the computer as object of study
 - d) the computer as teacher's aide
3. Selection and utilization of software
 - a) sources of materials
 - b) evaluation of courseware
 - c) integrating computers in the curriculum
4. Computer literacy
 - a) print and non-print materials on computers
 - b) role of computers in schools and society
 - c) status of computers in B.C. schools
 - d) use and misuse of computers in education

Course Activities

Course activities will consist of lectures, demonstrations, readings and laboratories.

Evaluation

Evaluation will be based on:

1. a paper reviewing the application of computers in a selected curriculum area (10 pages).
2. a critical evaluation of a piece of software (software review) (2-3 pages).
3. short tests related to the lectures and readings.
4. demonstration of computer operating skills.

Required Textbooks

Mandell, C.J., & Mandell, S.L. (1989). Computers in Education Today. St. Paul: West Publishing Company. ISBN-0-314-85275-1.