# EDUCATION 482-4
## Designs for Learning: Computers in Education

Fall, 1988
Monday, 4:30-8:20
Location: MPX 8651

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**Prerequisites**: Educ. 401/402 or equivalent.

## Calendar Description:

Students will develop a critical understanding of the role of computers in education and will learn how microcomputers can be used. The course focuses on learning about computers and software and provides experience with courseware designed for instruction and software tools designed to facilitate the task of teaching.

## Objectives:

This course will examine the various ways that computers might influence the teaching-learning process and classroom management. This will include the use of microcomputers and related software found in the classroom, introduction to a mainframe computer, and accessing remote computers using an electronic networking system.

Students in this course will:

a. develop competencies in the operation of microcomputers.

b. develop skills in the selection, evaluation and appropriate uses of computer-based learning materials.

c. develop awareness of the ways the computer can be used by the teacher to support instructional and administrative tasks.

d. develop awareness of the benefits and resources available when computers are connected to local and remote networks.

e. develop a critical awareness of the role of computers in society and the implication of this for education.

This course is *not* designed as a computer programming course which will prepare teachers to write computer-assisted learning materials or to prepare the teacher to teach computing sciences courses. In this course the student will achieve a level of computer literacy which will allow intelligent and critical utilization of existing microcomputer hardware and software.

## 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 an instructor
   b. the computer as a laboratory
   c. the computer as an object of study
   d. the computer as a teacher's aide
   e. the computer as a communications device

3.  Selection and utilization of software
    a.  sources of materials
    b.  evaluation of courseware
    c.  integrating computers into the curriculum

4.  Computer literacy
    a.  print and non-print materials on computers
    b.  the role of computers in schools and society
    c.  status of computers in B.C. schools
    d.  uses and misuses of computers in education

## Course Activities:

Course activities will consist of lectures, demonstrations, readings and laboratories. Student demonstrations will be part of the course.

## Evaluation:

Evaluation will be based upon:

1.  a paper reviewing the application of computers in a selected curriculum area (10 pages).
2.  a critical evaluation of a piece of software (2-3 pages).
3.  short tests related to lectures and readings.
4.  completed assignments demonstrating computer operating skills.
5.  a documented presentation to the class which demonstrates the use of a particular piece of computer hardware and/or software.

## Required Textbook:

None. Readings will be assigned and material will be made available during the first class.