

EDUCATION 482-4

DESIGNS FOR LEARNING: EDUCATIONAL USES OF COMPUTERS

Spring, 1987  
Monday, 4:30 - 8:20

Instructor: Larry Wiebe  
Location: MPX 8651

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Prerequisites: Educ. 401/402 or equivalent.

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 to prepare the teacher to teach computing science 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 documental presentation to the class which demonstrates the use of a particular piece of computer hardware and/or software.

Required Textbook

Kinser, Sherwood, & Bransford. Computer Strategies for Education: Foundations & Content-Area Applications. Merrill Publishing.