

EDUC 486-4 Special Topic: Microcomputers in Education

OBJECTIVES

Wednesdays, 4:30 - 8:20
LOCATION: on campus

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 implications 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 materials.

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 applications 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 TEXTBOOK

Harper, D. and Stewart, J. Run: Computer Education.
Belmont: Brook/Cole, 1983.

RECOMMENDED READINGS

(AVAILABLE FROM INSTRUCTOR):

Moursund, D. Introduction to Computers in Education for Elementary and Middle School Teachers.
Eugene: ICCE (University of Oregon), 1981.

(ON RESERVE IN LIBRARY):

Papert, S. Mindstorms: Children, Computers and Powerful Ideas
New York: Basic Books, 1980.

PREREQUISITES

EDUC 401/402 or equivalent