SIMON FRASER UNIVERSITY

EDUCATION 476-4
DESIGNS FOR LEARNING: NATURAL SCIENCES
(E1.00)
(cat. # 28741)

Fall Semester, 1992
(September 8 – December 4)
Tuesday, 4:30 – 8:20 p.m.
Location: MPX 7500F

Instructor: Dr. Marv Wideen

PREREQUISITE: Educ 401/402.

PURPOSE

The past few years has seen a renewed interest in science at all levels. Much of this was inspired by the report, **Science for every student**, produced by the Science Council of Canada. In addition, the Ministry of Education has a proposed new curriculum for the elementary grades. This atmosphere creates an interesting and exciting context in which this course will be offered this fall.

This course is aimed primarily at exploring effective ways of teaching science at the elementary and secondary school level. It is also designed to examine the special problem and current issues in science teaching. As such the course is designed so that students will:

- review and examine curriculum guides;
- examine and become proficient in using different models of teaching applicable to science teaching;
- explore how science teaching and science curriculum development have been influenced by various societal and educational trends, and
- examine current controversies and problems in science teaching.

The course is aimed both at students in Education 404 and at practising teachers.

NATURE OF THE COURSE

The course will involve a combination of lectures, seminar activity and micro teaching. The seminars will typically involve discussing readings in relation to the objectives outlined above. The micro teaching will involve the instructor, visitors or students demonstrating and engaging the group in teaching activities.

TOPICS

The following topics will be examined in the course. (Not necessarily in this particular order.) Students will be asked to identify additional topics on the first meeting of the course.

- the science curriculum as prescribed
- the science curriculum as practiced
- the objectives and rationale for science teaching
- models of teaching and their application in secondary science teaching
- issues and problems in science teaching
- implementing new ideas

REQUIREMENTS

Students will be expected to read extensively and to participate both in seminars and in micro teaching. The occasional "think piece" (a short two page think paper) will be required. The final grade will be decided on the basis of class participation, a final paper or project and an exit interview.

A set of readings will be distributed at the beginning of the course for which a small fee will be charged.