

SIMON FRASER UNIVERSITY
EDUCATION 476-4
DESIGNS FOR LEARNING: NATURAL SCIENCES

(D 1.00)

Summer Semester, 1996
(July 2 to August 9)
Tuesday, Thursday
8:30 to 12:20
Location: MPX 7500F

Instructors: Carol Scarff Seatter
Janet McVittie
Office: MPX
Phone: 291-5723

OBJECTIVES

In order to teach science effectively, a teacher should have an understanding of how science knowledge is constructed, both privately in the lab and communally in the science community; and the teacher should have a good range of teaching strategies to draw upon for different situations and different students. Hence, the course is intended to provide a framework for designing interesting and relevant lessons appropriate to the science curriculum.

OUTLINE OF TOPICS

The topics are listed as if they were to be sequenced. However, the topics are inter-related. Although some lessons will focus on one topic, the other topics will be addressed in the same lesson.

Topics:

- The nature of science
- Models of teaching science, including methods of evaluation
- Science content, including motion, forensics and chemistry (as time allows)

ASSIGNMENTS

Original experiment	30%
Unit plan (format to be described)	30%
Science in a bag - microteach	30%
Participation	10%

Detailed descriptions of these assignments is forthcoming.

READINGS

Additional readings will be in a box in the CET.

TEXTS

Required: IRP

Recommended (these books will be on 24 hour reserve in the library):

Joyce, B., Weil, M. & Showers (1992) Models of teaching.
Englewood Cliffs, NJ: Prentice Hall.

Bosak, S.V. - (1991) Science is. Richmond Hill, Ontario:
Scholastic Canada Ltd.

Wassermann, S. & Ivany, G. Who's afraid of spiders.