Education 475-4
Designs for Learning: Mathematics

Spring Semester, 1987   Instructor: T. L. Schroeder
[Days ? ; Time ?]   Telephone: [??]
Location: [??]   Location: KELOWNA

Calendar Description & Prerequisites: [You supply]

Objectives:
        This course is designed for prospective and practising teachers who wish
to explore the teaching/learning process as it relates to school mathematics.
Although the course will emphasize elementary school mathematics, topics in
secondary school mathematics will be included as appropriate for the needs and
interests of course participants.

        The goals of the course are to increase teachers' confidence and
competence by providing them a theoretical framework for discussing important
issues in mathematics teaching and curriculum development, and practical
experiences developing and sharing their ideas and experiences with
colleagues.

Outline of Topics:

        What does it mean to "understand" mathematics? How can understanding be
fostered and promoted? How can problem solving abilities be developed?

        What are the practical, classroom implications of cognitive and
developmental psychology for the teaching of mathematics?

        What approaches can be taken to teaching particular mathematics topics
(such as numeration, operations, measurement, geometry, graphing, algebra) ?

        How can teachers accommodate individual differences among students and
provide appropriate remediation and enrichment?

Course Requirements:

        Course grades will be based on participation in class discussions, short
homework assignments, individually assigned class presentations, and a final
examination.

Text:

        There is no required textbook. Assigned readings will be available on
reserve and copies will be provided at cost.