

Summer Semester 2001

# EDUC 475 - 4 Designs for Learning: Elementary Mathematics

E01.00

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Thursdays 17:30-21:20 in EDB 7500B (One all-day session. Date to be determined)

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### **PREREQUISITE**

Educ 401/402

#### COURSE DESCRIPTION

This course is designed for prospective and practicing elementary school teachers who wish to explore the fundamentals of the learning/teaching process as it applies to mathematics. On completion of the course it is hoped that participants will be able to deal confidently with the prescribed curriculum, and be able to plan, teach and assess mathematical instruction within a consistent framework.

Elementary mathematics can be stimulating for both the teacher and student. Change continues to occur in the elementary mathematics curriculum in terms of content and process. The concept of "numeracy" is receiving much greater emphasis, while at the same time calculators have become an integral component of the program. This course will draw from the latest research in mathematics learning, and will be presented through a variety of strategies and activities that will actively engage the learner. A multiple intelligence focus will be emphasized throughout the course.

#### **TOPICS**

- Problem solving
- Strategies and activities
- Number and number operations
- Measurement
- Data analysis
- Writing activities

- Manipulatives
- NCTM standards
- Estimation and mental computations
- Technology
- Geometry
- Historical topics and algebra

**EVALUATION** Due dates and details will be discussed during the first session. Evaluation will be based on the following:

- Attendance and participation
- Journal/critique assignment
- Completion and presentation of group game
- Individual project related to the student's own interest

#### RESOURCES/READINGS

British Columbia Ministry of Education. (1996). Mathematics K-7: Integrated Resource Package. Victoria, BC: Author. [available on-line at http://www.bced.gov.bc.ca/irp/]

Photocopies of articles and activities will be distributed on the first day of class.