

**SIMON FRASER UNIVERSITY
SUMMER SEMESTER 2004**

**EDUC 475-4
DESIGNS FOR LEARNING: ELEMENTARY
MATHEMATICS
(E01.00)**

PAMELA HAGEN
Office: TBD
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THURSDAY 8:30-12:20 in EDB 7500F

PREREQUISITE: EDUC 401/402

COURSE DESCRIPTION

Over the past decade the mathematics curriculum in British Columbia has gone through a number of changes and continues to be influenced by documents such as the WNCP (Western and Northern Canadian Protocol) and NCTM (National Council of Teachers of Mathematics) Standards. The goal of this course is to enable prospective and elementary school teachers to make informed pedagogical decisions about the teaching and learning of elementary mathematics.

Mathematics is a subject where success in the early stages can have a major impact on succeeding levels and therefore the role of teacher and the young learner will be kept in mind during all activities. On completion of the course it is hoped that participants will feel more at ease with mathematics and be able to deal comfortably with the prescribed curriculum therefore become able to plan meaningful instruction within a curriculum framework. Learning mathematics should be interesting, exciting and stimulating for students and teachers alike.

Possible Topics

Problem Solving & Estimation
Number Concepts and Operations
Shape and Space
Patterns and Relations
Statistics and Probability
Historical & Multicultural Topics
Tools of Teaching (Manipulatives and Technology)
Mathematics in the world around us

REQUIREMENTS

Students will be expected to attend all classes and to participate fully in class work and discussions. Due dates and details will be discussed during the first session. Evaluation will be based on the following:-

Individual Curriculum Project or Portfolio and presentation
Completion of and presentation of a group project

Course readings assignments
Mathematics Autobiography

REQUIRED TEXT:

Van de Walle, J.A. "Elementary and Middle School Mathematics: Teaching Developmentally" Addison Wesley Longman Inc. Canadian Edition. ISBN 0205-42077X.

British Columbia Ministry of Education (1996) Integrated Resource Package: Mathematics K – 7. Available on line at <http://www.bced.gov.bc.ca/irp>

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