

**EDUC 475-4**  
**DESIGNS FOR LEARNING: ELEMENTARY MATHEMATICS**  
**(D200)**

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Wednesdays 1:30-5:20 PM, EDB 8620F.  
From May 6 to July 29,  
except July 1 (Canada day)

**Instructor:** A. Paulino Preciado  
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**Prerequisite:** EDUC 401/402

**Course Description**

This course is designed for prospective and practising elementary school teachers who wish to explore the fundamentals of the learning/teaching process as it applies to mathematics in British Columbia, where mathematical curriculum has undergone major changes in the last few years.

Drawing on the latest research in mathematics learning, this course will show how such findings may be used in the classroom. Students will be expected to become familiar with and confident in the use of a variety of manipulative materials such as pattern blocks, and coloured rods. They will also explore the realities of mathematical learning by examining their own learning powers and patterns. On completion of the course it is hoped that participants will feel more at ease with the subject of mathematics, be able to deal confidently with the prescribed curriculum, and be able to plan mathematical instruction within a consistent framework.

Pedagogical content of the course includes: theories of mathematics learning, use of technology, and assessment. The mathematical content includes: measurement, numbers and number operations, estimation and mental computation, data analysis, problem solving, arithmetic operations, geometry, and historical topics.

**Requirements and Grades:** Students will be expected to attend all classes, and to participate fully in class work and discussions. Grades will be based on the following:

Class participation.	10%
Problem solving journal.	15%
Problem solving presentation.	15%
Lesson design.	15%
Assessing instrument design.	15%
Diagnosis and remediation math play.	15%
Self assessment .	15%

Detailed description of these issues, and further instructions will be provided at class.

**Required Text:** Van de Walle, John A. & Folk, S. (2008) Elementary & Middle School Mathematics: Second Canadian Edition. Pearson Education Canada (ISBN-13: 9780205488391).

**References:** Province of British Columbia Integrated Resources Package:  
<http://www.bced.gov.bc.ca/irp/>