SIMON FRASER UNIVERSITY
SUMMER SESSION 2009

EDUC 415-4
DESIGNS FOR LEARNING: SECONDARY MATHEMATICS
(E200)

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Monday 5:30-9:20 EDB 7500B

DESCRIPTION

This course is designed for prospective and practicing secondary school teachers who wish to explore the learning/teaching process as it applies to secondary school mathematics.

The objective of the course is to enhance the confidence and competence of course participants in planning and implementing instruction in the secondary school mathematics classroom while working within a consistent framework and using appropriate materials and methods.

Participants will explore both theoretical and practical aspects of mathematics teaching and learning including topics such as the role of problem solving, the role of written work, assessment and evaluation, enrichment and motivation, the structure and content of the provincial curriculum and the use of instructional resources and tools such as calculators, software, manipulatives, and online sources. Participants will also investigate and reflect upon their own mathematical thinking and learning through problem solving and extensions of the curriculum.

REQUIREMENTS

Specific details of the following will be discussed during the first session.
Assignments are as follows:

- Problem solving assignment and accumulation/construction of a "problem set"
- Creation of a mathematics glossary
- Written discussion points on class discussions and/or textbook readings
- Presentation of solution to problem solving assignments and problem set
- Group project
- This course will have a final exam

REQUIRED TEXT

Posamentier, A.S., Smith, B., & Stepelman, J. (2006).
Teaching Secondary Mathematics: Techniques and Enrichment Units (7th ed.).
Prentice Hall. Upper Saddle River, NJ. ISBN: 0131185209