

Designs for Learning: Secondary Mathematics

Education 415

Section: E100

Term: 2014 Summer

Instructor: Sean Chorney
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Tuesday 5:30-9:20 pm EDB 8620.1

Discussion Topics:

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, manipulative, and online sources. Participants will also investigate and reflect upon their own mathematical thinking and learning through problem solving and extensions of the curriculum.

Grading: REQUIREMENTS

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

- \x09Problem solving assignment and accumulation/construction of a problem set
- Analysis of strand and/or topic development in the current math curriculum
- Written discussion points on class discussions and/or textbook readings
- \x09Presentation of solution to problem solving assignments and problem set
- Group projects and presentations

This course will NOT have a final exam

Required Texts: Teaching Secondary Mathematics: Techniques and Enrichment Units (8th edition)
- Posamentier, A.S., Smith, B., & Stepelman, J. (2010). Allyn & Bacon.
ISBN: 0-13-500003-3

Recommended Texts:

Materials/Supplies:

Prerequisite/Corequisite: EDUC 401/402 AND ONE OF math 152, 155, or 158, or do-requisite EDUC 403. Students who have credit for EDUC 475 prior to EDUC 475 prior to the 2001-2 term cannot take EDUC 415 for further credit. Quantitative.

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Notes: Academic Honesty and Student Conduct:

All members of the University community share the responsibility for the academic standards and reputation of SFU. Academic honesty is a condition of continued membership in the university community. Please review the policy at: <http://students.sfu.ca/academicintegrity/policy/index.html>

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