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Summer Session 2003

EDUC 416 - 4

**Designs for Learning: Secondary Science**

**E02.00**

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Monday/Wednesday 17:30-21:20 EDB 8620

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**PREREQUISITE:**

Educ 401/402 or equivalent. Educ 405 desired.

**Preamble:**

I try to adapt this short version of this course as much as possible on students who have already taken EDUC 405. As such, I will spend less time on unit planning in preparation for 405 and more on lesson analysis and the broader issues planning for science education. If you have not taken EDUC 405 yet, you should therefore take the version of EDUC 416 that starts in May.

**Course Description:**

This course is designed for prospective and practicing secondary school teachers who wish to explore the fundamentals of the learning/teaching process as it applies to science. The course will draw from the latest research in science learning, and will show how such findings may be used in the classroom. You are expected to become familiar with and confident in the use of a variety of teaching strategies including the use of hands-on work, writing, role play, and a number of ways of using group work. You are also expected to prepare yourself for dealing with a range of classroom issues arising, for example, from feminist and anti-racist research traditions. Finally, you will prepare yourself for becoming lifelong innovators in science education, learning how to reflect on their practice.

**Objectives:**

On completion of the course it is hoped that you will feel more at ease with teaching science, be able to deal confidently with the prescribed curriculum, and be able to plan teaching and learning science instruction within a consistent framework.

**Assignments:**

The course components are as follows: a) designing a "critical challenge", a lesson designed to foster critical thinking; b) presenting a lesson opener and group lesson; c) self-analysis of the lesson opener and group lesson; and d) a unit planning assignment. (Each component will determine about 25% of the course grade.)