

**SIMON FRASER UNIVERSITY
SUMMER SEMESTER 2008**

**EDUC 416-4
DESIGNS FOR LEARNING: SECONDARY SCIENCE
(D01.00)**

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Tuesday & Thursday 8:30-12:20
EDB 7500B

PREREQUISITE: EDUC 401/402. Educ 405 desired.

COURSE DESCRIPTION:

We will do three things:

1. Get comfortable with the provincial science curriculum.

That science teachers working with grades 8 – 10 must teach in all areas of science in spite of their own specialization is both the biggest challenge and the greatest strength of the BC Science Curriculum. Students will get practice developing units and teaching lessons in all of the areas of the provincial curriculum. We will pay particular attention to Science 10. This is a new curriculum to be implemented in September 2008. The intention is that you will go into schools in September with some degree of expertise in this new curriculum – a valuable commodity.

2. Gain an understanding of our orientations to the science curriculum.

“Education doesn’t serve the public, it creates the public!” -Neil Postman

We will take Postman’s comment seriously as we explore why we are teaching science and what the intentions are for the science curriculum. We will have to reconcile the stated intentions of the science curriculum with our personal intentions, and, those intentions with our pedagogical approaches. We will also consider science itself and the role of science in our socio-political world and establish our curricular intentions in terms of teaching about the role of science in society or science and technology in society.

3. Get to some answers to the question, “What does good teaching in science look like?”

Of course, the answers are not that hard to come by, it is putting them into practice that counts, but, we will need to articulate very clearly what is meant by “good science teaching” in the context of all of the above.

Along the way, we will also develop an understanding of assessment practices that encourage learning in high-school science as well as some exploration of the use of technologies to enhance science experiences for students.

ASSIGNMENTS AND ASSESSMENT

Grades will be based on 5 weekly assignments at 15% each and in-class work worth 25%. Some of the

weekly assignments will overlap with in-class work, effectively making the actual in-class component greater than 25%. Criteria for assessment will be developed in the first two classes and will be directed toward the intentions of the course as outlined above, especially the part about what good science teaching looks like.

READINGS

Most of the readings such as government curriculum documents and other articles will be available on-line. We will use WebCT to post links and articles as well as assignment background and details.

Some information and print articles will be provided in class but we will try to avoid having an extra photocopy fee (\$10).

Students in all Faculty of Education courses are encouraged to review policies pertaining to academic integrity available on the Undergraduate Programs website:

http://www.educ.sfu.ca/ugradprogs/student_resources/index.html