

JIMON FRASER UNIVERSITY

Intersession 2000

EDUC 476 - 4
Designs for Learning: Natural Sciences
(Kamloops)

Gowa Kong
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Schedule: 9:00 am -3:00 pm

* May 11-12, 18-19, June 8-9, 15-16, 29-30

***D05.00**

PREREQUISITE

Educ 401/402

COURSE DESCRIPTION

This course is designed to explore curriculum and instruction as it pertains to science education. It will focus on learning activities that foster scientific reasoning and allow children to investigate and identify scientific principles. Course activities and assignments are designed to help learners reflect on engaging experiences, curriculum design and science IRP outcomes. The various means of organizing inquiry-based instruction will be emphasized, as will specific means of encouraging scientific communication and discourse.

Topics to be covered include:

- What is science, and why should it be taught?
- What is the "scientific method"? What is inquiry?
- How do children think about particular scientific concepts?
- Models of science instruction: project-based instruction, application of science, play-debrief-replay, problem posing and problem solving.

ASSIGNMENTS

1. Midterm

A mini-unit plan or theme study of 5-6 learning experiences. This should be accompanied by a short paper that links the specific topic to a teaching strategy. The assignment will also include a short in class presentation of one of the learning activities in your unit.

2. Final

An integrated project that explores language and science. This will be a combined project with the Language Arts course.

REQUIRED READINGS

There is no assigned textbook for the course. Readings will be available from the instructor.

RECOMMENDED READINGS

Henley, T. (1996). Rediscovery: Ancient Pathways, New Directions. Vancouver, BC: Lone Pine Publishing.

Bloom, J. (1998). Creating a Classroom Community of Young Scientists: A Desktop Companion. Toronto, ON: Irwin Publishing.