

**SIMON FRASER UNIVERSITY**

**EDUCATION 476**

**DESIGNS FOR LEARNING: NATURAL SCIENCES (SECONDARY)**

Summer Session, 1991  
(July 2 – August 9)  
Monday & Wednesday  
8:30 a.m. – 12:20 p.m.  
Location: MPX 7500F

Instructor: Bruce Gurney

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**PREREQUISITE:** Educ 401/402, or equivalent.

**COURSE OBJECTIVES**

1. To make explicit some of the conceptions or assumptions we hold about “science”, “teaching”, and “learning”.
2. To become familiar with the scope, sequence and philosophy of the B.C. Junior Secondary Science Curriculum goals and objectives.
3. To develop a repertoire of practical skills and resources in the teaching of General Science in terms of:
  - instructional strategies
  - learning theory
  - short and long range planning
  - laboratory management
  - safety considerations
  - student evaluation

**EVALUATION**

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| <i>Practical</i>   | <i>25%</i> |
| <ol style="list-style-type: none"><li>1. Perform a demonstration of a science activity used to develop a science concept</li><li>2. As a member of a small group, conduct a class laboratory investigation and follow-up (labs and demonstrations)</li></ol> |            |
| <i>Creative</i>  | <i>25%</i> |
| <ol style="list-style-type: none"><li>1. Prepare a practical teaching aid which illustrates a science concept</li><li>2. Develop an original idea for a student learning activity.</li></ol>   |            |
| <i>Reflective</i>  | <i>25%</i> |
| <ol style="list-style-type: none"><li>1. Keep a personal, reflective journal for the course</li></ol>  |            |
| <i>Resource File</i>   | <i>25%</i> |
| <ol style="list-style-type: none"><li>1. Keep a resource file of activities, strategies, media, materials, addresses, etc. which have utility for Jr. Secondary Science instruction</li></ol>  |            |

**REQUIRED TEXTS**

1. Learning in Science: The implications of children's science, Roger Osborne and Peter Freyberg.
2. Junior Secondary Science Curriculum Guide and Resource Book, B.C. Ministry of Education Publication Services.