●SIMON FRASER UNIVERSITY●

EDUCATION 475-4
Designs for Learning: Mathematics (Elementary)
(D2.00)
(Cat #60664)

Fall Semester, 1993
(September 7 - December 6)
Tuesday & Thursday,
16:00-18:00
Location: Dawson Creek
          Ahcote Building
          Northern Lights College

Instructor: Sukrit Parmar
Office:
Phone: 782-1486 (W)
               782-8887 (H)

PREREQUISITE: EDUC 401/402

DESCRIPTION

The emphasis of this course will be on the movement from "concrete to iconic to symbolic". There will be an active exploration of manipulative materials used at the elementary level and an understanding of the B.C. Elementary Math Curriculum as it can be taught in an integrated setting with other subjects. A variety of teaching strategies, especially those involving social interaction, will be modeled in delivering the course content.

On the completion of this course, it is hoped that the participants will approach the teaching of math in an enthusiastic, confident, and comfortable manner and will also be knowledgeable and familiar with the content and that they will be able to plan for math instruction consistent with effective teaching practices and the curriculum/assessment guidelines and framework.

The following topics will be covered:

1. Problem Solving
2. Strategies and Activities
3. Estimation and Mental Calculations
4. Calculators and Computers
5. Geometry
6. Rational Numbers
7. Evaluation and Assessment
8. Resources
9. Number and Operations
10. Measurement
11. Data analysis
12. Ration and Proportion
13. Algebraic Thinking
14. Integration

COURSE REQUIREMENTS

- Active participation and attendance
- Weekly learning log
- Completion of assignments
- A major project

Weight of marks will be established after the first class on September 9. A complete course outline and dates will also be given at the first class.

REQUIRED TEXT

Fuys, David J. Teaching Mathematics in the Elementary School. Glenview, Illinois: Scott, Foresman and Company. 1979.

SUPPLEMENTAL TEXT

Post, Tom. Teaching Mathematics in Grades 1-8. Allyn & Bacon. 1988.