

EDUCATION 475-4
DESIGNS FOR LEARNING: MATHEMATICS

Summer Semester, 1985
WEDNESDAYS, 5:30 - 9:20

INSTRUCTOR: Ken Harper
LOCATION: MPX 8651/52

OBJECTIVES: The course is designed for prospective and practicing teachers who wish to explore the fundamentals of the learning/teaching process as it applies to Mathematics. The course will be operated in a workshop fashion with students expected to:

- become familiar with and confident in the use of a variety of manipulative aids such as rods, logic blocks, geo-boards, and so on;
- engage in discussion and formulate their own rationale as to the how and why of teaching mathematics;
- explore the realities of children's and adult's learning powers and patterns by an examination of their own learning powers and patterns.

On completion of the course it is hoped that teachers will feel more at ease with the subject of mathematics, be able to deal confidently with the prescribed curriculum, and be able to plan mathematical instruction within a consistent framework.

OUTLINE OF TOPICS:

The topics to be dealt with are the usual contents of the B.C. Curriculum which will be examined from a methodological perspective (how do you teach multiplication, fractions, etc.), from the viewpoint of mathematics (what is multiplication, what are fractions, etc.), and from the vantage point of the role of mathematics in everyone's learning of language and general growth (eg. integration of other subjects, relationship to language arts).

TYPICAL REQUIREMENTS:

Course requirements will vary according to particular instructors, but students may be expected to

- participate fully in classwork and discussions;
- keep a journal as a record of their work;
- make a class presentation;
- complete a term project;
- complete a written assignment on mathematics journals;
- complete a written assignment on the authorized B.C. school textbooks;
- take a final examination

ELIGIBILITY:

Education 401/2 or equivalent.

TEXTBOOKS:

Dawson, A.F. (Sandy). Children Teaching Themselves Mathematics. Vancouver: S.F.U., 1981 (Available from Instructor)