

EDUCATION 475-4  
DESIGNS FOR LEARNING  
Elementary School Mathematics

Intersession 1985  
INSTRUCTOR: Sarah Joyce

MPX 9511/12  
Mon. & Wed. 5:30 - 9:20

OBJECTIVES: The course is designed for prospective and practising elementary school 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 colored 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, relationships to language arts, and so on).

TYPICAL REQUIREMENTS: Students will be expected to:

participate fully in classwork and discussions, and complete homework assignments;

prepare and teach a prototype lesson demonstrating their facility in using and understanding of some manipulative aid appropriate to mathematics instruction;

design an activity "outside the classroom" which will give children first hand experience that can be applied to math learning.

ELIGIBILITY: Education 401/2 or equivalent.