

SIMON FRASER UNIVERSITY

EDUCATION 367-4

**INTEGRATING ESL LEARNERS IN DIFFERENT SCHOOL SUBJECTS:
SCIENCE AND MATHEMATICS**

(Section E1.00)

(Cat. #81521)

Fall Semester 1992
(September 8–December 4)
Mondays, 4:30–8:20 p.m.
Location: MPX 7600

Instructor: Prof. Gloria Sampson
Office: MPX 8671
Phone: 291-4303

PREREQUISITES: 60 hours of credit

OBJECTIVES AND TOPICS

Because the kind of English used in science and mathematics differs greatly in syntax from that used in other subjects, a general purpose English as a second language course does not usually provide children and adolescents of limited English proficiency with the proper language skills to handle science and mathematics in the typical elementary or secondary classroom. This course provides teachers of science and mathematics from Grades K-12 with techniques for helping ESL learners in their classes to cope with the English specific to these subject areas. The course is designed specifically for science and math teachers with NO background in English linguistics or ESL teaching methods. Topics covered are:

1. How the English used in talking about and writing about science and mathematics differs from ordinary English.
2. How to assess the conceptual and linguistic knowledge of students with limited proficiency in English.
3. How to structure lessons that have students who speak English as their native language and English as their second language working together on the same content, but on different levels of language.
4. How to create progress files that appropriately assess second language learners in the sciences and mathematics.

ASSIGNMENTS:

- (1) Assessing math or science concepts and the English competence of an ESL student;
- (2) A teaching unit in math or science to meet ESL learners' needs;
- (3) Creating progress files for ESL students in math and science classes.

REQUIRED TEXTBOOKS:

Patricia Osborn. (1989). *How Grammar Works (A Self-Teaching Guide)*. Toronto: John Wiley & Sons, Inc. [A book for people who dislike grammar.]

Rosalind Driver, Edith Guesne and Andrée Tiberghien. (1989). *Children's Ideas in Science*. Milton Keynes, England: Open University Press.

National Council of Teachers of Mathematics. (1991). *Curriculum and Evaluation Standards for School Mathematics, K-12*. Reston, VA: National Council of Teachers of Mathematics.