

**SIMON FRASER UNIVERSITY  
SUMMER SESSION 2008**

**EDUC 475-4  
DESIGNS FOR LEARNING: ELEMENTARY  
MATHEMATICS  
D400**

**KEVIN WELLS**  
Office: EDB 8631.1  
EMAIL: [kwells@sfu.ca](mailto:kwells@sfu.ca)

Tuesday & Thursday 1:00-4:50 pm  
EDB 8620F

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**PREREQUISITE:** EDUC 401/402

**Text:** Van deWalle, J & Folk, S. Elementary and Middle School Mathematics: Teaching Developmentally, Canadian edition, New York: Longman

References: BC Integrated Resource Package: <http://www.bced.gov.bc.ca/irp>  
Library of virtual Manipulatives: <http://nlvm.usu.edu/en/nav/vlibrary.html>  
Mathematics Problems, Games and Articles: <http://nrich.maths.org/public/index.php>

**Course Description:** Focuses on teaching elementary school mathematics. Students explore mathematical learning, their own mathematical thinking, and curriculum; and plan mathematical instruction within a consistent framework using appropriate instructional materials and methods.

**Course Objectives:** On completion, the student will have a good understanding what it means to do, learn and teach mathematics in a standards based curriculum.

**Course Requirements:**

**1. Mathematical Journaling (25%)**

Throughout the course you will be given several mathematics-based problems to work on. Your efforts for these problems are to be reported in a journal. One problem will be handed in on **July 1st** for formative assessment. On **July 31st** this journal, along with good copies of three problems, will be handed in for marking. (Format to be specified)

**2. Group Assignment: Math Play – Diagnosis and Remediation (25%)**

You will be working in groups of 2-4 on the completion of a math play, a scene of which has been already written. On **July 29th** you will submit your efforts along with a group journal (Format to be specified)

**3. Reflective Journal Assignment (25%)**

You will also be asked to think about some pedagogical issues regarding the teaching and learning of mathematics. Your thoughts on these issues are to be recorded in a journal, in addition, you will be asked to respond to readings from the text or supplemental material, It is important that each new entry into the journal is well marked with date and title. The journal will be handed in on **July 3rd** for formative

assessment, and on **August 5th** for summative assessment.

**4. Written assignments (10% and 15%)**

You will be required to produce two written assignments on topics specified. The first assignment will be due on **July 8th** and the second on **July 22nd**. These will be of 1000 -1500 words in length.