

A: Division: Education and Student Services Division  
 B: Department: Student Services and Developmental Education  
 Program:

Date: October 21, 1993  
 New Course:  
 Revision of Course  
 Information Form: X March 2, 1988.

C: DVST 110                      D: Mathematics-Literacy Level                      E: 3  
 Subject & Course No.                      Descriptive Title                      Semester Credit

F: **Calendar Description:** This course is designed to help students learn basic computations using whole numbers, fractions, decimals and percents. Skills addressed will include the algorithms for addition, subtraction, multiplication and division; counting, naming and writing numbers; estimating, comparing and measuring; solving word problems; making change.

**Summary of Revisions:**  
 (Enter date & section)  
 Eg. Section C,E,F  
 1993-09-21 E,F,G,O,P

G: **Type of Instruction: Hours per Week/per Semester**

Lecture	Hrs.	
Laboratory	Hrs.	
Seminar	Hrs.	
Clinical Experience	Hrs.	
Field Experience	Hrs.	
Practicum	Hrs.	
Shop	Hrs.	
Studio	Hrs.	
Student Directed Learning	Hrs.	
Other		instructor directed 6 Hrs.
<b>TOTAL</b>	<b>6</b>	<b>HOURS</b>

H: **Course Prerequisites:**  
 see attached threshold requirements

I: **Course Corequisites:**  
 None

J: **Course for which this Course is a Prerequisite:**  
 DVST 210

K: **Maximum Class Size:**  
 12

L: **College Credit Transfer**  
 College Credit Non-transfer    X

M: **Transfer Credit:**  
 Requested:  
 Granted:  
 Specify Course Equivalents or Unassigned Credit as Appropriate:  
 U.B.C.  
 S.F.U.  
 U. Vic.  
 Other:

*Rob Primmer for DVST*  
 \_\_\_\_\_  
 COURSE DESIGNER(S)  
*James*  
 \_\_\_\_\_  
 DIRECTOR/CHAIRPERSON

*[Signature]*  
 \_\_\_\_\_  
 DIVISIONAL DEAN  
*P.H. Orger*  
 \_\_\_\_\_  
 REGISTRAR

---

## **N: Textbooks and Materials to be Purchased by Students (Use Bibliographic Form):**

All other materials and textbooks will be available on loan from the instructor when needed.

---

Complete Form with Entries Under the Following Headings:

O: Course Objectives;      P: Course Content;      Q: Method of Instruction;

R: Course Evaluation

O. COURSE OBJECTIVES

The aims of this course are for students:

1. to gain initial experience with whole numbers, fractions, decimals and percents;
2. to memorize the single-digit number facts of addition and multiplication, or develop an effective alternate strategy;
3. to use the standard algorithms to add, subtract, multiply and divide whole numbers, fractions and decimals;
4. to be able to measure and record time, length, capacity and mass ("weight") using everyday metric units;
5. to be able to use a calculator for addition, subtraction, multiplication and division.

**P. COURSE CONTENT**

Individual programs will be designed for each student; these programs will be based on weaknesses and strengths diagnosed by the instructor. The course consists of the following topics:

**1. Whole Numbers**

- a) Naming and transcribing
- b) Number sense (place value, rounding, estimating, etc.)
- c) Adding/subtracting - Number facts to  $9 + 9$  and operations (includes borrowing/carrying)
- d) Multiplying/dividing - times tables to  $9 \times 9$  and operations (includes carrying, remainders)
- e) Factoring
- f) Word problems

**2. Common Fractions**

- a) Concept and vocabulary
- b) Changing terms and comparing
- c) Operations of adding, subtracting, multiplying and dividing
- d) Applications/Word problems

**3. Decimals**

- a) Reading/Writing, place value
- b) Rounding and comparing
- c) Converting to and from common fractions
- d) Operations of  $+$ ,  $-$ ,  $\times$ ,  $\div$
- e) Operations with money
- f) Measurement
- g) Other applications/word problems

**4. Percents**

- a) Reading and writing
- b) Converting to and from decimals
- c) Calculating a percent of a number
- d) Finding what percent one number is of another
- e) Applications/word problems

**Q. METHOD OF INSTRUCTION**

A variety of teaching methods will be used including small group instruction, individual assistance and student directed learning where appropriate and when possible.

The student will be expected to attend regularly, to progress and to undertake independent learning as directed.

R. COURSE EVALUATION

A mastery model of on-going evaluation will be used. A student will have completed the course when s/he has satisfactorily completed appropriate exercises and assignments.

Where formal tests of specific skills are used, mastery will be defined as a score of 80 percent or more.

Progress will be monitored on a regular basis by the instructor in consultation with each student.

## APPENDIX I

### THRESHOLD REQUIREMENTS

During the initial entry interview and assessment, the student must demonstrate an ability to:

1. understand and use spoken English;
2. follow oral instructions;
3. verbally express goals and expectations regarding the course;
4. converse, responding appropriately to questions and generating coherent questions on the topic under discussion.

### PROGRAMME REQUIREMENTS

1. work independently, using his/her own initiative to resolve difficulties when the instructor is not available;
2. articulate difficulties and ask for help when required;
3. participate in designing flexible daily schedules for use of class time;
4. construct realistic long and short term goals;
5. make progress at a reasonable rate towards his/her goals by following an individualized programme and adhering to appropriate schedules;
6. deal with his/her emotions in a manner which will not disrupt the studies of other students.

© Douglas College. All Rights Reserved.