

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

Date: May 8, 1998
 New Course:
 Revision of Course Information form:

C: DVST 210 D: Mathematics - Fundamental Level E: 3

Subject & Course No. Descriptive Title Semester Credit

F: Calendar Description: **This course is designed to help students develop and consolidate skills in the arithmetic of whole numbers, common fractions, decimals and percents, focusing on the operations of addition, subtraction, multiplication and division. As well, students will develop the ability to use appropriate strategies in applying arithmetic to the solution of practical problems, including specific use of proportion as a technique. Other topics include metric measurement, interpreting graphs and tables, and perimeter, area and volume of simple, common geometric figures and forms.**

Summary of Revisions: (Enter date & section) Eg: Section C,E,F
 1994-02-07,G,P
 1998-05-08 F,O,P,R

G: Type of instruction: Hrs 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 (see Section Q)	
Total:	4 Hrs.

H: Course Prerequisites:
DVST 110 or permission of the instructor

I: Course Corequisites:
none

J: Course for which this Course is a Prerequisite:
DVST 310

K: Maximum Class Size:
18

L: College Credit Transfer
 College Credit Non-Transfer
 Non-Credit

M: Transfer Credit: Requested:
 Granted:

Specify Course Equivalents or Unassigned Credit as appropriate:
 U.B.C. *
 S.F.U.
 U. Vic.
 Other:

Rob Drama

Course Designer(s)

[Signature]
 Divisional Dean
[Signature]
 Registrar

Director/Chairperson

Subject and Course Number

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

Students are required to supply a three-ring binder, paper, pen pencil.

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

Where possible, copies of those textbooks which are only for use in the classroom may be borrowed from the library or purchased from the bookstore.

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 develop confidence in using arithmetic;
2. to improve speed and accuracy in the recall and appropriate use of number facts;
3. to improve speed and accuracy in calculations, by hand, involving whole numbers, fractions, decimals and percents;
4. to be able to describe the basic concepts underlying addition, subtraction, multiplication and division;
5. to select appropriate operations and strategies for solving applied problems;
6. to incorporate the use of mathematics, where appropriate, as a strategy in dealing with quantifiable problems arising from practical situations;
7. to be able to provide reasonable estimates of answers.

P. COURSE CONTENT

The course consists of the following units:

1. Whole Numbers

- a) review of basic arithmetic
- b) place value and rounding
- c) exponents (to represent multiple factors)
- d) averages (mean)
- e) order of operations
- f) divisibility, factors, primes, multiples
- g) estimation and application

2. Common Fractions

- a) naming, changing, comparing
- b) multiplying and dividing
- c) adding and subtracting
- d) combined operations, average
- e) estimation and application

3. Decimals

- a) reading and writing, comparing, rounding
- b) adding, subtracting, multiplying, dividing
- c) bar notation (repeating decimals)
- d) equivalence with common fractions
- e) estimation and application

4. Ratio and Proportion

- a) ratios, rates, unit rates
- b) equal ratios, cross/products, proportions
- c) solving proportions for missing term
- d) applications in problem solving

5. Percents

- a) definitions, meaning of percent
- b) conversions to and from other fractions
- c) calculations, use of proportion
- d) increase/decrease, simple interest, and other applications

6. Measurement and the Metric System

- a) metric (S.I.) units; abbreviations and prefixes
- b) metric estimation
- c) conversion within metric
- d) calculations involving metric units
- e) applications
- f) concepts of perimeter, area and volume
- g) calculations of perimeter, area and volume of selected common geometric figures and forms
- h) applications

7. Graphs and Tables

- a) reading and interpreting graphs
- b) reading and interpreting tables
- c) applications of graphs and tables

Q. METHOD OF INSTRUCTION

A combination of different instructional methods will be used in order to balance instructional efficiency with individual student needs. small group instruction, individual assistance (in lab tutorial or scheduled appointments) and student directed learning will be selected where appropriate and possible.

The student will be expected to maintain regular attendance and progress and to undertake independent learning as directed. Regular feedback and informal progress reports will be available from the instructor.

R. COURSE EVALUATION

A mastery model of on-going evaluation will be used. A student will have completed the course when he/she has demonstrated through satisfactory completion of exercises and assignments that the course objectives have been achieved.

Where formal tests of specific skills are used, mastery will be defined as a score of 70 percent or more.

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