



**DOUGLAS COLLEGE**

**EFFECTIVE: SEPTEMBER 2012  
CURRICULUM GUIDELINES**

**A.** Division: Academic Effective Date: September 2012

**B.** Department / Program Area: Faculty of Science & Technology / Mathematics Upgrading  
 Revision  New Course   
 If Revision, Section(s) Revised: A, B, C, H, J  
 Date of Previous Revision: September 2004  
 Date of Current Revision: September 2012

**C:** MATU 0110 **D:** Mathematics-Literacy Level **E:** 3

Subject & Course No.	Descriptive Title	Semester Credits
<b>F:</b> Calendar Description:  This course is designed to help students learn basic computations using whole numbers, fractions and decimals. 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.		
<b>G:</b> Allocation of Contact Hours to Type of Instruction / Learning Settings  Primary Methods of Instructional Delivery and/or Learning Settings:  Instructor directed  Number of Contact Hours: (per week / semester for each descriptor)  4  Number of Weeks per Semester:  15	<b>H:</b> Course Prerequisites:  MATU assessment	
	<b>I:</b> Course Corequisites:  None	
	<b>J:</b> Course for which this Course is a Prerequisite  MATU 0210	
	<b>K:</b> Maximum Class Size:  12	
<b>L:</b> PLEASE INDICATE: <input type="checkbox"/> Non-Credit <input checked="" type="checkbox"/> College Credit Non-Transfer <input type="checkbox"/> College Credit Transfer: SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS ( <a href="http://www.bctransferguide.ca">www.bctransferguide.ca</a> )		

**M:** Course Objectives / Learning Outcomes

The aims of this course are for students to:

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

**N:** Course Content:1. Whole Numbers

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:

- 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

**O:** Methods 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.

**P:** Textbooks and Materials to be Purchased by Students

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

**Q:** Means of Assessment

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.

**R:** Prior Learning Assessment and Recognition: specify whether course is open for PLAR

No

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Course Designer(s)

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Education Council / Curriculum Committee Representative

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Dean / Director

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Registrar