



EFFECTIVE: SEPTEMBER 2002

CURRICULUM GUIDELINES

A. Division: Educational Services Date: May 28, 2002.
 B. Department / Student Development New Course Revision
 Program Area Developmental Studies
 If Revision, Section(s)
 Revised G, N
 Date Last Revised:
 May 24, 2001
 C: DVST 310 D: Mathematics I E: 3

Subject & Course No.	Descriptive Title	Semester Credits
F: Calendar Description: This course deals with a variety of topics in algebra and geometry. It is designed for students with no previous experience in Algebra. Algebra topics include operations with rational numbers; order of operations; roots; powers; rules for exponents; polynomial operations; factoring; solving linear equations in one variable; problem solving and solving linear equations by graphing; geometry topics include perimeter, area and volume of geometric figures and forms; lines, angles and triangles.		
G: 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: 13.5	H: Course Prerequisites: DVST 210 or permission of Instructor	
	I: Course Corequisites: None	
	J: Course for which this Course is a Prerequisite DVST 410	
	K: Maximum Class Size: 20	
L: PLEASE INDICATE: <input type="checkbox"/> Non-Credit <input checked="" type="checkbox"/> College Credit Non-Transfer <input type="checkbox"/> College Credit Transfer: Requested <input type="checkbox"/> Granted <input type="checkbox"/> SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)		

M: Course Objectives / Learning Outcomes

The aims of the course are for students to:

1. gain initial experience with algebra and geometry for application in subsequent course in mathematics;
2. learn to apply the basic operations and order of operations to the rational numbers and to polynomials;
3. learn to perform operations using integer exponents;
4. develop a facility for factoring: into primes, by removal of a common monomial factor, by recognition of special products - applications with simple binomials and trinomials;
5. recognize and adopt appropriate strategies for the solution of linear equations in one variable and linear equations in two variables (by graphing);
6. use and manipulate formulas for solving problems of perimeter, area and volume.

N: Course Content:

The course consists of the following topics:

1. Number and Number Operations
 - a. operations with rational numbers: positive and negative integers and fractions
 - b. order of operations in whole number expressions
 - c. factoring integers into primes
 - d. powers of integer bases and roots which yield rational answers
 - e. operations with integral bases and exponents:
 $a^m x^n$, $a^m + a^n$, $(a^m)^n$, a^{-n} , $a^0 a^1$ $(a^m + b^n)^2$
2. Algebra
 - a. evaluating expressions
 - b. polynomial addition and subtraction
 - c. polynomial multiplication
 - d. polynomial division by monomials
 - e. operations with variable bases and integral exponents as in 1e. above
 - f. factoring: greatest common factor, differences of squares, trinomials
 - g. linear equations in one variable: solution axioms
 - h. rearranging formulas
 - i. writing expressions for unknowns
 - j. problem-solving techniques
 - k. solving word problems leading to linear equations in one variable.
3. Analytic Geometry
 - a. Cartesian co-ordinators
 - b. graphing linear equations in two variables: table of values
4. Geometry
 - a. plane figures + 3-dimensional forms: formulas for perimeter, area and volume
 - b. Pythagorean Theorem

O: Methods of Instruction

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

P:	<p>Textbooks and Materials to be Purchased by Students</p> <p>Students are required to supply a three-ring binder, paper, pen, pencil, and a scientific calculator.</p> <p>All other materials and textbooks will be available on loan from the department when needed.</p>												
Q:	<p>Means of Assessment</p> <p>Attendance is a course requirement. The final grade may be UN if more than 30% of classes are missed or if less than 70% of items for evaluation are undertaken.</p> <p>Evaluation will be based on examinations and assignments in accordance with college policy. Details regarding the number and weighting of individual components will be announced in a "Course Information" handout at the beginning of the semester.</p> <p>Grades will be assigned as follows:</p> <table style="margin-left: 40px; border: none;"> <tr> <td>A+ 95-100%</td> <td>B+ 80-84%</td> <td>C+ 65-69%</td> <td>P 50-54%</td> </tr> <tr> <td>A 90-94%</td> <td>B 75-79%</td> <td>C 60-64%</td> <td>F < 50%</td> </tr> <tr> <td>A- 85-89%</td> <td>B- 70-74%</td> <td>C- 55-59%</td> <td></td> </tr> </table>	A+ 95-100%	B+ 80-84%	C+ 65-69%	P 50-54%	A 90-94%	B 75-79%	C 60-64%	F < 50%	A- 85-89%	B- 70-74%	C- 55-59%	
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A- 85-89%	B- 70-74%	C- 55-59%											
<p>Prior Learning Assessment and Recognition: specify whether course is open for PLAR</p> <p>No</p>													

Course Designer(s)

Education Council / Curriculum Committee Representative

Dean / Director

Registrar