Douglas College

EFFECTIVE: SEPTEMBER 2001

CURRICULUM GUIDELINES

A.	Division:	Educational Services	Date:May 24, 2001.		
B.	Department / Program Area	Student Development Developmental Studies	New Course		Revision X
			If Revision, Section(s) Revised N,P,Q		
			Date Last Revised: April 19, 1992..		

C:	DVST 310	D:	Mathematics 1	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 learning.

Number of Contact Hours: (per week / semester for each descriptor) 4 hours per week x 14 week

Number of Weeks per Semester:

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:

		Non-Credit					
	X	College Credit Non-Transfer					
		College Credit Transfer:	Requested		Granted		

SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)

M:	**Course Objectives / Learning Outcomes** **e aims of the course are for students to:** gain initial experience with algebra and geometry for application in subsequent course in mathematics; learn to apply the basic operations and order of operations to the rational numbers and to polynomials; learn to perform operations using integer exponents; 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; recognize and adopt appropriate strategies for the solution of linear equations in one variable and linear equations in two variables (by graphing); use and manipulate formulas for solving problems of perimeter, area and volume.
N:	**Course Content:** **e course consists of the following topics:** **mber and Number Operations** **erations with rational numbers: positive and negative integers and fractions** **der of operations in whole number expressions** **toring integers into primes** **wers of integer bases and roots which yield rational answers** **erations with integral bases and exponents:** $a^m x^n$, $a^m + a^n$, $(a^m)^n$, a^{-n}, a^0 a^1 $(a^m + b^n)^2$ **f. operations with radicals.** **gebra** **aluating expressions** **lynomial addition and subtraction** **lynomial multiplication** **lynomial division by monomials** **erations with variable bases and integral exponents as in le. above** **toring: greatest common factor, differences of squares, trinomials** **ear equations in one variable: solution axioms** **arranging formulas** **iting expressions for unknowns** **oblem-solving techniques** **lving word problems leading to linear equations in one variable.** **alytic Geometry** **rtesian co-ordinators** **aphing linear equations in two variables: table of values** **ometry** **ane figures + 3-dimensional forms: formulas for perimeter, area and volume** **thagorean 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:	**Textbooks and Materials to be Purchased by Students** **Students are required to supply a three-ring binder, paper, pen, pencil, and a scientific calculator.** **All other materials and textbooks will be available on loan from the department when needed.**
Q:	**Means of Assessment** **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.** **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.** **Grades will be assigned as follows:** **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%**
	Prior Learning Assessment and Recognition: specify whether course is open for PLAR **No**

Course Designer(s)		**Education Council / Curriculum Committee Representative**
Dean / Director		**Registrar**