

UNIVERSITY COLLEGE OF THE FRASER VALLEY

COURSE INFORMATION

DISCIPLINE/DEPARTMENT: Mathematics **IMPLEMENTATION DATE:** May 1994

Revised: June 1997

<u>Math 095</u>	<u>Introduction to College Math II</u>	<u>4</u>
SUBJECT/NUMBER OF COURSE	DESCRIPTIVE TITLE	UCFV
CREDITS		

CALENDAR DESCRIPTION: Students using this course for credit towards a credential must refer to the *Provincial Transfer Guide*, or check with a program advisor for the amount of credit awarded.

Math 094 and Math 095 together complete the Math 12 course. In Math 095 the students examine logarithmic, exponential, and trigonometric functions, identities, and equations. Additional topics covered as time allows include graphing of rational functions, geometric and arithmetic sequences and series, the binomial series, exponential and logarithmic series, matrices, determinants, vectors, complex numbers, and the complex roots of unity.

RATIONALE:

COURSE PREREQUISITES: Math 094 with "C" or better

COURSE COREQUISITES: None

HOURS PER TERM FOR EACH STUDENT	Lecture	75	hrs	Student Directed	
	Laboratory		hrs	Learning	hrs
	Seminar		hrs	Other - specify:	
	Field Experience		hrs		hrs
				TOTAL	75

MAXIMUM ENROLMENT: 35

Is transfer credit requested? **:** Yes **9** No

AUTHORIZATION SIGNATURES:	
Course Designer(s): <u>C. Guidera, V. Alford, J. Cannon</u>	Chairperson: <u>N/A</u> Curriculum Committee
Department Head: <u>S. Milner</u>	Dean: <u>Wayne Welsh</u>
PAC: Approval in Principle _____ (Date)	PAC: Final Approval: <u>June 1997</u> (Date)

SYNONYMOUS COURSES:

(a) replaces _____
(course #)

(b) cannot take _____ for further credit
(course #)

SUPPLIES/MATERIALS:

TEXTBOOKS, REFERENCES, MATERIALS (List reading resources elsewhere)

Algebra & Trigonometry with Applications. 3rd edition.

OBJECTIVES:

To study the exponential and logarithmic functions and their graphs.

The student should be able to solve equations using these functions, and solve applied problems involving these functions.

To study the circular functions, their graphs, their inverses, graphs of their inverses, and identities involving circular functions. The student should be able to solve equations and applied problems involving these functions.

METHODS:

Traditional lectures mixed with problem sessions.

STUDENT EVALUATION PROCEDURE:

Suggested:	Assignments and quizzes	20%
	Tests	40%
	Final Exam	40%

Students must earn at least 40% on the final examination in order to receive credit for the course.

NAME & NUMBER OF COURSE

COURSE CONTENT

I. Exponential and Logarithmic Functions:

1. Definitions and basic properties, graphs
2. Common logarithms
3. The number e , change of base
4. Applied problems

II. Circular Functions:

1. Unit circle definitions of sine and cosine functions
2. The other circular functions
3. Graphs
4. Identities
5. Solutions of equations
6. Applied problems

III. Trigonometry:

1. Solving right triangles
2. Law of Sines
3. Law of Cosines

IV. Inverse Circular Functions:

1. Definitions
2. Graphs

V. Three Unknown - Matrices

VI. Series and Sequences