UNIVERSITY COLLEGE OF THE FRASER VALLEY

COURSE INFORMATION

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

Revised: Nov. 1996

Math 113	Differential Calculus	4
SUBJECT/NUMBER OF COURSE	**DESCRIPTIVE TITLE**	**UCFV CREDITS**

CALENDAR DESCRIPTION: This calculus stream (Math 113/114) is recommended for students of commerce at any university or students of the social sciences intending to transfer to Simon Fraser University.

Topics will include limits, differential calculus of one variable including optimization and curve sketching, as well as antiderivatives.

RATIONALE:

COURSE PREREQUISITES: Algebra 12 or Math 12, with C+ or higher, or UCFV Math 094/095 with C+ or higher, or UCFV Math 110 with C+ or higher, or a C+ in Applications of Math 12

COURSE CO-REQUISITES: None

HOURS PER TERM FOR EACH STUDENT	**Lecture**	**65**	**hrs**	**Student Directed Learning**	**hrs**	
	Laboratory		**hrs**	**Other - specify:**		
	Seminar		**hrs**			
	Field Experience		**hrs**		**hrs**	
				TOTAL	**65**	**HRS**

MAXIMUM ENROLMENT: 35

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

AUTHORIZATION SIGNATURES:

Course Designer(s): D. McDowell **Chairperson**: N/A
Curriculum Committee

Department Head: S. Milner **Dean**: W. Welsh

PAC: Approval in Principle _____ **PAC: Final Approval**: N/A
(Date) **(Date)**

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Math 113
NAME & NUMBER OF COURSE

SYNONYMOUS COURSES:

(a) replaces _____
(course #)

(b) cannot take **Math 111** **for further credit**
(course #)

SUPPLIES/MATERIALS:

TEXTBOOKS, REFERENCES, MATERIALS (List reading resources elsewhere)

Mathematics with Application for the Management, Life and Social Sciences, Anton, Kolman, Averback (3rd Ed.) - HBJ
An Introduction to Calculus, Methods and Applications, Evans, Groetech, Walker - WEST
Applied Calculus - An Intuitive Approach, Faber, Freedman & Kaplan - WEST

OBJECTIVES:

To provide students in the life, social or commerce/economics with the methods of differential calculus which are useful in their areas and to allow the students to apply the techniques to problems of interest in their areas.

METHODS:

Lecture and problem session in class
Assignments, quizzes, midterm and 3-hour comprehensive final exam
The presentation is less analytic than the math/engineering calculus stream.

STUDENT EVALUATION PROCEDURE:

Quiz/assignment	25%
Midterms	40%
3-hour final exam	35%

Math 113
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COURSE CONTENT

Limits, Rate of Change, Derivatives

Applications of Differentiation

Exp. & Log. Functions

Differentials, Antidifferentials

Simple D.E.'s