

UNIVERSITY COLLEGE OF THE FRASER VALLEY

COURSE INFORMATION

DISCIPLINE/DEPARTMENT: Mathematics **IMPLEMENTATION DATE:** March 1988

Revised: December 9, 1996

Math 114 Integral Calculus and Linear Methods 4

SUBJECT/NUMBER OF COURSE CREDITS	DESCRIPTIVE TITLE	UCFV
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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 SFU.

Topics will include integral calculus of one variable, multivariate differential calculus, differential equations, matrices and linear optimization. Students may receive credit for only one of Math 112 or Math 114.

* UBC, SFU and Uvic will accept only the Math 111/112 stream for calculus credit in the Faculty of Science.

RATIONALE:

COURSE PREREQUISITES: Math 113 with "C" or better

COURSE COREQUISITES: None

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

MAXIMUM ENROLMENT: 35

Is transfer credit requested? Yes 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)

Math 114**NAME & NUMBER OF COURSE**

SYNONYMOUS COURSES:

(a) replaces

(course #)

(b) cannot take Math 112 for further credit

(course #)

SUPPLIES/MATERIALS:**TEXTBOOKS, REFERENCES, MATERIALS (List reading resources elsewhere)****Mathematics With Applications for the Management, Life and Social Sciences; Anton, Kolman, Averback, 3rd edition. HBJ****An Introduction to Calculus, Methods and Applications, Evans, Groetch, Walker. WEST****Applied Calculus - An Intuitive Approach, Faber, Freedman & Kaplan. WEST****OBJECTIVES:**

To provide a student in the life or social sciences or commerce stream with the methods of integral calculus, multivariate differential calculus and some linear methods for application in their fields of interest. The student is expected to apply the techniques to problems related to their areas.

METHODS:

Lecture and problem sessions in class.

Assignments, quizzes, midterm and three-hour comprehensive final exam.

The presentation is less analytic than the math/engineering calculus.

STUDENT EVALUATION PROCEDURE:

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

Math 114

NAME & NUMBER OF COURSE

COURSE CONTENT

Integration

 Indefinite - substitution

 Definite Integral

 F.T. of Calculus

 Techniques of Integration

 Applications of Integration

 Functions of Several Variables

 Linear Systems of Equation

 Matrix Methods

 Linear Programming

 - Geometric

 - Simplex