

DOUGLAS COLLEGE

Course Information

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A. Division ACADEMIC

Date November 14, 1990

~~NEW COURSE~~ New Course

B. Department SCIENCE

Revision of Course MAP 250

to be Purchased by Students:

N. Textbook and Materials

Business, Economics, Life  
Wiley Publishing Company

Barnett & Ziegler, Applied Mathematics For Business,  
Sciences, and Social Sciences, 3rd Edition, Dell

O. Course Objectives:

should be able to:

Upon completion of this course, the student s

limits; understand the basis of derivatives; be able to  
derivatives of algebraic and transcendental functions ( $\exp(x)$ ) and  
derivatives implicitly.

1. Compute elementary  
calculate derivative  
 $\ln(x)$ ; and find

functions by applying first and second derivative  
be able to locate the extrema of functions.

2. Sketch graphs of  
techniques; and

diminishing returns, and elasticity.

4. Understand the economic significance of partial derivatives and solve simple two-  
variable problems to optimize demand and revenue functions.

P. Course content:

1. Limits; rate of change; derivative  
tangent lines; rules and techniques for differentiating;  
analysis.

definition;  
marginal ana

2. First derivative; application to graphs  
differentials

2. First deriva  
optimization problems; curve sketching; differ

3. Derivative of exponential and logarithmic functions  
other applications to the mathematics

3. Derivative of exponential and logarithmic functions  
related rates; elasticity of demand; o  
of finance.

4. Functions of several variables; partial  
problems in several variables

4. Functions of several variables; partial  
partial derivatives; maximum/minimum p