

## COURSE OUTLINE

Revision: Frank Post and Heidi Lyman, December 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	Mathematics
COURSE TITLE:	Business Calculus
COURSE NUMBER:	MATH& 148
TYPE OF COURSE:	Academic Transfer
Special Requirement Met:	QSR
AREA(S) OF KNOWLEDGE:	The Natural World: Science, Technology, and the Environment/ The Language of Science
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	55
LAB HOURS:	0
CLASS SIZE:	35 (25 online)
PREREQUISITES:	MATH 116 with a 3.5 or Math 102 or better or appropriate placement score.

## COURSE DESCRIPTION:

An intuitive and elementary treatment of differential and integral Calculus with emphasis on polynomials, exponential and logarithmic functions, and applications from the social sciences, biology, medicine, ecology, physics, business and economics.

MATH& 148 Business Calculus  
December 2008

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Computation – Identify, interpret and utilize higher-level mathematical and cognitive skills (for those students who choose to move beyond the minimum requirements as stated above).
2. Communication – Read and listen actively to learn and communicate.
3. Critical Thinking and Problem Solving – Think critically in evaluating information, solving problems and making decisions.
4. Technology – Select and use appropriate technological tools for personal, academic and career tasks.

GENERAL COURSE OBJECTIVES:

A student will learn and apply the basic tools of Calculus as problem-solving aids in business and sciences.

TOPICAL OUTLINE:

- I. Functions
- II. Introduction to limits
- III. Derivations
- IV. Applications of the derivative
- V. Exponential and logarithmic functions
- VI. Integration
- VII. Techniques of integration
- VIII. Partial derivatives of functions of two variables with applications of extrema

APPROX HOURS: 55

REVISED BY: Frank Post and Heidi Lyman  
DATE: December 2008

MATH& 148 Business Calculus  
April 2008

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1	Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1	Computation - Use mathematical operations
SLO 2.2	1	Computation - Apply quantitative skills
SLO 2.3	1	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1		Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2		Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1	Critical Thinking and Problem Solving -
SLO 5.1	1	Technology - Select and use appropriate technological tools
SLO 6.1	1	Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2	1	Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3	1	Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5	1	Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1	1	Information Literacy - Access and evaluate information
SLO 7.2	1	Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

PREPARED BY: Frank Post and Heidi Lyman  
DATE: April 2008