

Youngstown State University

Department of Mathematics and Statistics

Course Outline for Mathematics 1549

Course Title: College Business Math 2

Text: Lial, Greenwell and Ritchey, Finite Mathematics and Calculus with Applications, 7th Edition, Addison Wesley, 2005

Course Credit: 4 s.h.

Course Prerequisite: MATH 1548. Credit will not be given to students who have completed MATH 1570, 1571, or 1585H.

Course Description: An introduction to the foundations and principles of calculus of one variable. Intended for students in business. Topics include: exponential and logarithmic functions, limits, derivatives, and integrals with applications.

Course Objectives: General Education Requirement: MATH 1549 is a General Education course. This course is designed to introduce students to the concepts of calculus. A primary goal of the course is to improve quantitative, critical thinking, written and oral communication skills. Successful students will be expected to develop skills to:

- calculate derivatives and integrals of polynomial, rational, exponential, and logarithmic functions
- investigate the relationship between functions, derivatives, and graphs
- investigate the relationship between functions, integrals and area
- employ calculus to solve elementary problems

<u>Chapter/Section</u>	<u>Topics</u>
1.1-1.2	Linear Functions – **Review as Needed**
10.1-10.6	Nonlinear Functions **Review as Needed**
11.1-11.5	The Derivative
12.1-12.5	Calculating the Derivative
13.1-13.4	Graphs and the Derivative
14.1-14.3	Applications of the Derivative
15.1-15.5	Integration
16.1-16.3	Further Techniques and Applications of Integration
Optional Sections: 14.4-14.6	Implicit Differentiation, Related Rates and Differentials
17.1-17.3	Multivariable Calculus

Grading:

- Grades will be determined by performance on exams, a comprehensive final and homework assignments that may include an oral or written project. Instructor will either collect and grade homework or give frequent quizzes.
- An important component of doing mathematics is expressing ideas in a clear and correct manner. With practice, students will become adept at communicating in mathematics. Responsible collaboration with peers is encouraged as it will help to assess whether you are expressing your mathematical ideas well. It is also important to work independently.
- Attendance and grading policies will be distributed by the instructor.

*Students are required to use a graphing calculator in this course. The recommended calculator is a TI-83 Plus.

Students with Disabilities: In accordance with University procedure, if you have a documented disability and require accommodations to obtain equal access in this course, please contact the Office of Equal Opportunity and Disability Services at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the Office of Disability Service (330) 941-1372 intake procedure.

Semester: Spring 2007

The last day to drop the course with a grade of "W" is: Thursday, March 29, 2007