

## MA 122 Calculus for Business and Life Sciences II

**Course Description.** Integral calculus with application in business, economics, and the management, life, and social sciences.

**Credit Hours.** 3

**Course Objectives.** To teach concepts of integral calculus and differential equations to students who choose a major in business or life science.

### Course Content:

- The Exponential and Logarithmic Functions
  - The Exponential Function
  - The Logarithmic Function
  - The Derivatives of the Exponential and Logarithmic Functions
  - Applications of the Exponential Function
- Antidifferentiation
  - Antiderivatives
  - Integration by Substitution
  - Integration by Parts
  - Tables of Integral
    - A Brief Table of Integral
- The Definite Integral
  - The Area Under a Curve
  - Properties of the Definite Integral
  - Some Applications of Integration
  - The Riemann Integral
  - Application of the Riemann Integral to Business
  - Improper Integral
  - Number Integration Techniques
- Other topics as time permits

**Evaluation:** There are at least three 50 minute examination during the semester plus a final exam.

### ACCOMMODATION STATEMENT:

In accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, the University offers reasonable accommodations to students with eligible documented learning, physical and/or psychological disabilities. Under Title II of the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973, a disability is defined as a physical or mental impairment that substantially limits one or more major life activities as compared to an average person in the population. It is the responsibility of the student to contact *Developmental Services* prior to the beginning of the semester to initiate the accommodation process and to notify instructors within the first three class meetings to develop an accommodation plan. Appropriate, reasonable accommodations will be made to allow each student to meet course requirements, but no fundamental or substantial alteration of academic standards will be made. Students needing assistance should contact *Developmental Services*.

UNIVERSITY OF NORTH ALABAMA