

MATHEMATICS 201-203

Calculus II --- Commerce Study

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Course Context

This course is the second mathematics course in the Social Sciences program. It forms the second of a sequence of two courses introducing the fundamental concepts of Calculus. The main focus of Calculus II is Integral Calculus, which is the study of areas bounded by the graphs of functions.

Required Materials

Textbook: "Applied Calculus for the managerial, life, and social sciences", 7th edition, by S. T. Tan, Thomson Brooks/Cole, 2007

Course Objectives

In Calculus II, students will learn to apply the methods of Integral Calculus to the study of function models in the field of Social Science. Topics in this course include: review of differentiation, integration techniques, applications of integration, improper integrals and infinite series. Applications and examples will be drawn from economics, business and social sciences.

Evaluation of Learning

There will be a quiz every week. The lowest mark of all quizzes will not be counted. There will be four term tests. The exact dates will be announced at least one week prior to the tests. Attendance is required for all term tests and quizzes. No possibility of making up test or quiz exists unless a written medical notice is presented immediately after student's recovery.

Quizzes 20%, Tests 80% (each term test is worth 20%)

Instructional Approaches and Learning Activities

Class time will be devoted to lectures and problem solving. During problem solving sessions, students are encouraged to work in groups. Problems taken from the textbook will be suggested after each session. They indicate the level of difficulty of the problems that the students are expected to solve. The book will be followed closely and it is absolutely essential that each student has a copy and brings it to every problem solving session. Additional exercises will be provided by the instructor.

Outline

The course will cover the following material:

Integrals and Applications:	Chapter 6, sections 1 - 8
Additional Topics in Integrals:	Chapter 7, sections 1 - 4
Differential Equations:	Chapter 9, sections 1 and 2
Taylor Polynomials and Series:	Chapter 11, sections 1 - 6
Trigonometric Integrals:	Chapter 12, sections 3 and 4