

Mathematics MAT 202 : Calculus II
Summer 2013
MW 6:00 pm - 9:30 pm, Room 205

Instructor: Dr. Brad Emmons

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Course Materials

Calculus : Early Transcendental Functions, 5th Edition, Larson and Edwards

Introduction

Calculus is one of the major crowning achievements in 17th century mathematics. It is the branch of mathematics used to describe motion, and it has a multitude of applications in mathematics, the physical sciences, engineering, and the social and biological sciences. In this semester, we will concentrate on integral calculus. Goals include understanding the main concepts of integral calculus, and to be able to apply these concepts to a variety of applications. In addition, we will be exploring some basic integration techniques.

Exams

There will be two exams. The exams will test your understanding of concepts, your ability to work through some of the computations, as well as your ability to apply the techniques to certain applications. The first exam is scheduled for Thursday, July 24th, and the second exam is scheduled for Thursday, August 14th. Each exam will count for 35 percent of your final grade. There will be NO make-ups for missed exams. Please look over your schedule as soon as possible. If you see a potential conflict, inform me immediately.

Homework

The best way to learn Mathematics is to solve problems. At the end of each section, there are a variety of exercises that you can look at to help understand concepts and hone your skills. I will suggest problems for you to attempt from the end of the section, but I will not grade these. Instead, I will assign weekly problem sheets that will be collected and graded. These problems will be more in-depth than the drill-type activities and will require more exposition on your part. You will be graded on content, organization and completion of the assignments. In addition to the graded problems, each assignment will carry 5 completion points. To earn 5 out of 5 of the completion points, the assignment must be written up neatly and thoroughly with complete solutions to all of the assigned problems. Late homework will not be graded, but you may still earn completion points on late assignments. The homework is designed to help you identify where you might have difficulties. If you encounter any trouble with an assignment or a concept, seek help!

Attendance

Attendance in MAT 202 is extremely important. Although there is no official attendance policy, note that if you are not in class on a particular day, I will not grade your homework assignment. I will also request that you be in class at 6:00 p.m. and no later.

Grading

Your grade in this course will be based on two main factors: homework and exams. The exams will be worth 70% of your final grade and the homework 30%. In addition to these factors, minor ethereal factors such attendance, class participation, attitude, and improvement over the course of the semester can also affect your grade. To determine your final grade, 90–100% = A, 80–89% = B, 70–79% = C, 60–69% = D, 59 and below = F, with the top two percents receiving a + and the bottom two percents receiving a –.

Calculators

The use of calculators will not be allowed on any quizzes or exams. None of the work will require any sophisticated computations. You may use a calculator when working on your homework to check your work. However, since will not be allowed to use it on the exam, I suggest you do as much work without

your calculator as possible.

Important Dates

Thursday, July 24 – Exam I

Thursday, August 14 – Exam II

Suggestions

Come to class with your homework assignment completed every day

Study for at least 30 minutes each day in addition to completing your homework assignment

Read the section we will be covering *before* we cover it in class

Do not fall behind!

Come to office hours to discuss homework and concepts. I am here to help!

Syllabus

MAT 202 : Calculus II

Term : Summer 2013

Week 1	July 8	Course Policies, Syllabus Section 5.1 – Antiderivatives and Indefinite Integration Section 5.2 – Area
	July 10	Section 5.3 – Riemann Sums and Definite Integrals Section 5.4 – The Fundamental Theorem of Calculus
Week 2	July 15	Section 5.5 – Integration by Substitution Section 5.7 – The Natural Logarithmic Function : Integration
	July 17	Section 5.8 – Inverse Trigonometric Functions Section 7.1 – Area of a Region Between Two Curves
Week 3	July 22	Section 7.2 – Volume : The Disk Method Section 7.3 – Volume : The Shell Method
	July 24	Exam I Section 7.4 – Arc Length and Surfaces of Revolution
Week 4	July 29	Section 7.5 – Work Section 7.6 – Moments, Centers of Mass, and Centroids
	July 31	Section 8.1 – Basic Integration Rules Section 8.2 – Integration by Parts
Week 5	August 5	Section 8.3 – Trigonometric Integrals Section 8.4 – Trigonometric Substitution
	August 7	Section 8.5 – Partial Fractions Section 8.6 – Integration by Tables and Other Integration Techniques
Week 6	August 12	Section 8.7 – Indeterminate Forms and L'Hopitals Rule Section 8.8 – Improper Integrals
	August 14	Exam II