

Math 1312

Calculus II

Fall 2010

Instructor: Dr. Ryan C. Daileda
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Scheduled Lectures:

Section 1: MWF 9:30 AM - 10:20 AM, Marrs McLean Science Building (MMS), Room 141

Section 2: MWF 10:30 AM - 11:20 PM, Marrs McLean Science Building (MMS), Room 141

Office Hours: Consult the course web site.

Textbook: *Calculus, Early Transcendentals* (sixth edition) by James Stewart

Course URL: <http://www.trinity.edu/rdaileda/calculus>

Prerequisites: Math 1307 (Calculus A) or Math 1311 (Calculus I)

Course Content: Calculus II is a continued study of the concepts introduced in Calculus I. We will begin by studying various techniques of anti-differentiation, including integration by parts, trigonometric substitution and partial fraction decomposition. We will then move on to a survey of ordinary differential equations, focusing primarily on how to find solutions to linear and separable equations. A study of infinite series will follow, including convergence tests, power series and representations of functions by series (i.e. Taylor series). Finally, we will touch briefly on vector and matrix arithmetic and some applications.

Homework: Homework will be assigned daily and will consist of reading (yes, you are expected to read the textbook!) as well as problem solving. All assignments will be posted on the course homework web page. Written work will be assigned after lecture daily but collected only weekly, typically on the Friday following the day it is assigned. **Due dates will be clearly indicated on the course homework web page.** Late homework will not be accepted in the absence of divine intervention or matters of similar weight. **I reserve the right to penalize unexcused late work as I see fit.**

Assigned exercises will come in two varieties: **graded** and **practice**. Graded exercises are those whose solutions are to be written up (see guidelines below) and handed in on the specified due date. Your work on these exercises will be evaluated and returned to you. Practice exercises are intended to help direct your studying and give you an opportunity to refine your skills, and will be essential to your mastery of this course. You will find it very difficult to become proficient in Calculus (indeed, in *any* math course) if you do not spend a significant amount of time working through practice exercises. While **solutions to practice exercises are not to be turned in**, I fully expect every student to be able to successfully solve each practice exercise. In particular, **both graded and practice exercises are fair game for exam material.**

Graded homework exercises are to be written **neatly** using **one side** of 8.5×11 inch paper, and multiple pages should be stapled together **before** you come to class. Do not use paper from a spiral

notebook unless you can neatly remove the ragged edge. **Failure to adhere to these guidelines may be penalized. Sloppy work and work written on the backs of pages may not be graded!**

All written homework assignments will carry equal weight toward the homework component of each student's grade (see "Grades" below), with the exception that **each student will have his or her lowest homework assignment score dropped.**

Collaboration on homework assignments is permitted and encouraged, and you should feel free to talk to other students while you are in the process of thinking about a problem. However, when it comes time to write up your solution, you should do this by yourself without outside assistance. In other words, **NO COPYING. Attempting to pass off the work of others (regardless of the source) as your own will be considered a violation of the honor code.**

Exams: There will be three evening midterm exams during the semester as well as a cumulative final exam held during Common Exam Period V. The dates and times for the exams are as follows:

| | |
|----------------------------|---|
| First Midterm Exam | Wednesday, September 22, 7:30 - 9:00 PM |
| Second Midterm Exam | Monday, October 25, 7:30 - 9:00 PM |
| Third Midterm Exam | Wednesday, December 1, 7:30 - 9:00 PM |
| Final Exam | Wednesday, December 15, 3:30 - 6:30 PM |

Please note that all exam times are the same for both sections. The locations of the exams will be announced in class and posted on the course web page.

If you have a legitimate conflict with these exam times, please contact me as soon as possible. Please do not wait until shortly before the exam. Please be aware that **the final exam will not be given early to accommodate travel plans.**

No assistance of any kind is allowed on exams, except for resources that I may distribute with the tests. This means that the use of books, notes, calculators, computers, PDAs, cell phones, etc. will not be permitted during exams. The only things you need to bring with you on the day of any exam are a pencil, an eraser and a positive attitude.

Technology: Calculators and computers can be useful tools, especially for simplification of complicated expressions, and should you feel the need you may use them to check your answers to homework problems. However, because calculators will not be allowed during exams, you should not become dependent on their use.

Grades: Your overall score in the course will be based upon your scores on the homework, midterm exams, and the final exam. The point values are as follows:

| | |
|--------------------------|-------------------|
| Homework | 100 points |
| Midterm Exams (3) | 100 points (each) |
| Final Exam | 150 points |
| Total | 550 points |

Your letter grade will be determined by how many of the 550 possible points you earn as well as by how well the class performs overall, i.e. *there will be a grading curve*. I am seriously opposed

to grade inflation and you should be aware that the curve is typically adjusted so as to award a grade of C+ or B- to the average score. So that you can gauge your performance throughout the semester, cutoffs for major grades (A, B, C, D, F) will be determined for each exam and announced in class.

Expectations: I expect each student to invest at least 2 to 3 hours of work and thought outside the classroom for every hour of lecture. To effectively study for this course it is essential that you **carefully read the assigned portions of the textbook and work through as many practice problems as possible**, as well as go over your lecture notes and turn in written assignments.

Attendance: Attendance is highly encouraged but is not mandatory. Roll will not be taken, but excessive absences should be explained to me.

Outside Help: The Math Department sponsors free weekly calculus help sessions, usually beginning the second week of the semester, and also maintains a list of peer tutors. Additional information will be posted on the course web page as it becomes available.

Use of Previous Exams: Students are permitted to obtain and study exams given in previous offerings of this course. I will (upon request) gladly provide access to copies of exams I have given in the past. However, **previous exams should not be used to judge the content or difficulty of the exams that will be given in this course.**

Academic Integrity: All students are covered by the Trinity University Honor Code that prohibits dishonesty in academic work. Under the Honor Code, a faculty member will (or a student may) report an alleged violation to the Academic Honor Council. It is the task of the Council to investigate, adjudicate, and assign a punishment within certain guidelines if a violation has been verified.

Students who are under the Honor Code are required to pledge all written work that is submitted for a grade: “On my honor, I have neither given nor received any unauthorized assistance on this work” and their signature. The pledge may be abbreviated “pledged” with a signature.

The specifics of the Honor Code, its underlying philosophy, and the norms for sanctioning can all be found on the Academic Honor Council website, accessed through the Trinity Homepage:

http://www.trinity.edu/departments/academic_affairs/honor_code/

Special Needs: If you have a documented disability and will need accommodations in this class, please speak with me privately early in the semester so I may be prepared to meet your needs. If you have not already registered with Disability Services for Students, contact the office at 999-7411. You must be registered with DSS before I can provide accommodations.