

COURSE INFORMATION Location: MTH 217
 Class Times: MTWRF 10:00-10:50
 Instructor: Dr. Karl Frinkle
 Office: MTH 112
 Office Hours: MTWRF 9:00-10:00 and 11:00-12:00, or by appointment
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TEXT *Calculus* (5th edition), by Robert Smith and Roland Minton, ISBN # 9780073312705

COURSE OVERVIEW In this course, we will cover such topics as functions, limits, derivatives, integrals, differentiation and integration of transcendental functions and their applications. This course is a fundamental starting point for many areas of mathematics and other sciences, such as chemistry, physics and biology.

As a general education course, this course will satisfy the goal of the mathematical or quantitative reasoning component of general education: to develop the ability of students to understand and apply mathematical abstraction. As such, students will (1) solve problems using the principles of algebra or symbolic logic; (2) apply mathematical reasoning to analyze and interpret quantitative information; and (3) use and interpret mathematical formulas.

COURSE OUTLINE We will cover most of the sections in chapters 1 through 6 from the required text . We will not cover chapter 0, as it should be a review for most students. If you are not familiar with the material in chapter 0, make sure you work to comprehend it all, as it is an important first step in understanding most of the topics we will cover over the semester.

We will spend most of our class time discussing theory as a group and working problems out on the board. You will be graded on your in-class problem solving skills and it will be in your best interest to read the material we are covering ahead of time. Instead of a lecture with question and answer session, we will keep an open dialogue throughout the class meeting times.

In addition to problem solving and group discussion, there will be an emphasis on writing *Mathematica* programs and functions to automate many of the ideas that we cover. Through this process, it is hoped that a deeper understanding of the underlying ideas and principles will be found.

POLICIES You will not be able to make up a quiz or receive credit for any other assignment which you missed the deadline for unless you notify me ahead of time. Given prior notification of an absence, I will ensure that you can take the quiz or hand in your homework at a more convenient time.

Cheating will not be tolerated in any shape or form. If you are caught cheating, it will be reported to the appropriate academic offices, and appropriate action will be pursued.

You will not be able to make up a quiz or test or receive credit for any other assignment which you missed the deadline for unless you notify me ahead of time. If you are going to miss a class, please let me know ahead of time, and I will ensure that you can take a quiz early, or make it up afterwards if one is to be given that day. The same goes for homework and projects.

All cell phones, pagers, CD/MP3 players, laptops, calculators and other such devices must be turned off and put away before class begins. It is also expected that everyone will behave in a kind and

courteous manner towards fellow students and the instructor. The only exception to this rule is when we use *Mathematica* in class, and you will be allowed to use laptops in class for this reason only.

If you are caught using a cell phone or any other electronic device during class, your final grade will be dropped by **one letter grade per incident**.

I reserve the right to change any policies as I see fit to ensure that you are indeed receiving the best possible education that I can give you in the subject matter at hand. If I feel a certain aspect of the course does not appear to be effective in its method, I will attempt to change it (for the better I hope).

GRADES

Your final grade will be based upon the following items

- 20% - Quizzes - given randomly, without warning
- 30% - Homework - required to be handed in on a regular basis
- 20% - Final Exam - a comprehensive take home exam
- 15% - *Mathematica* Programming - writing functions and procedures in Mathematica to automate topics we cover in class
- 15% - In-Class Problem Solving - being able to solve problems given to you in class, and your ability to explain them thoroughly, will be the criteria for this part of your grade

IMPORTANT DATES FOR SPRING 2011

- 2011.01.12 - Classes begin
- 2011.01.19 - Last day to enroll in or add classes
- 2011.01.19 - Last day to drop a class with no grade record
- 2011.01.19 - Last day to drop a class with refund/no charges
- 2011.03.09 - Last day to drop a class with automatic W
- 2011.04.01 - Last day to complete final application for graduation
- 2011.04.15 - Last day to drop a class
- 2011.05.09 - Final exam from 11:00-13:00
- 2011.05.13 - Classes end

SPECIAL ACCOMMODATIONS

Any student needing special accommodations due to a disability should contact the Coordinator of Student Disability Services, Student Union, Suite 204 or call (580) 745-2254 (TDD# 745-2704). It is the responsibility of each student to make an official request to the Coordinator for accommodations.