

MA214 Sec 010 Calculus IV: Ordinary Differential Equations Spring 2012

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Text: . E. Boyce and R. C. DiPrima: *Elementary Differential Equations and Boundary Value Problems*, 8th Edition, Wiley 2005
Class Meetings: MWF 1:00–1:50 PM CB 337
Office Hours: MR 4-5PM or by appointment
Course material and information: Blackboard

Grading Policy

Item	Date	Total Points
10 Quizzes at 10 points each	approximately every week	100
First Hour Exam	17 February (target)	100
Second Hour Exam	6 April (target)	100
Final Exam	30 April, 8:00-10:00 AM	200
TOTAL		500

The minimum cut-offs for letter grades are: A 450-500; B 400-449; C 350-399; D 300-349; E below 300. If your final total of all scores is within one of these intervals, you are guaranteed to receive the corresponding letter grade or higher. Homework will be assigned every class period. *Cheating in any form will not be tolerated.*

Course Content

MA214 is a basic course in *ordinary differential equations*. The basic problem is to determine an unknown function from an equation that involves only the derivatives of the function. Differential equations are used to model a wide variety of physical and biological phenomena, from atoms to animal populations. We'll study basic equations for which the unknown function—the solution—depends on one real variable only, like time or position. This is the meaning of the adjective *ordinary*. We will study first- and second-order ordinary differential equations extensively, especially linear differential equations. We will discuss applications to other natural sciences, like physics and biology. Approximate course material: Chapter 1, Chapter 2 (sections 2.1, 2.2, 2.3, 2.5, 2.7), Chapter 3, and Chapter 6.

This is a **paperless** class to the extend possible. Homework problems and practice exams will be posted on blackboard. Please consult it regularly.

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Special Dates in Spring 2012

16 January	Martin Luther King, Jr. Day - No classes
1 February	Last day to drop with no W
5 March	Midterm of Spring 2010 Semester
12-17 March	Spring Break
6 April	Last day to withdraw from a course
27 April	Last Class
30 April	8:00-10:00AM Final Exam