MA214-003 Calculus IV:
Ordinary Differential Equations Fall 2009

Instructor	P. D. Hislop
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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 11:00–11:50PM CB 203
Office Hours:	Wednesday, 4PM in the Lab CB 313
	M 4-5; F 4-5 and by appointment
Weekly Problem Session:	to be scheduled
COURSE MATERIAL AND INFORMATION	www.ms.uky.edu/∼hislop

Grading Policy

Item	Date	Total Points
6 Quizzes at 10 points each	approximately every two weeks	60
4 Lab Projects	15 points each	60
First Hour Exam	2 October (target)	100
Second Hour Exam	20 November (target)	100
Final Exam	16 December 10:30AM–12:30PM	180
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 and discussed in the weekly problem session. *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. Approximate course material: Chapter 1, Chapter 2 (sections 2.1, 2.2, 2.3, 2.5, 2.7), Chapter 3, and Chapter 6.

This class will have a lab component using the University of Illinois IODE package that runs on MatLab. There will be four projects during the semester. **Our orientation will be on Monday, 31 August, 11:00-11:50 in the computer Lab CB 313.** Please go there instead of the usual room.

Special Dates

7 September	Labor Day - No classes
19 October	Midterm of Fall 2009 Semester
6 November	Last day to withdraw from a course
25–27 November	Thanksgiving Break - No Classes
11 December	Last Class
16 December	10:30AM-12:30PM Final Exam