MA214 Sec 010 Calculus IV:
Ordinary Differential Equations Spring 2012

Instructor: Leonardo Marazzi
Office: 707 POT
        859-257-6802 or leonardo.marazzi@uky.edu
Text: E. Boyce and R. C. DiPrima: Elementary Differential Equations and Boundary
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

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>Total Points</th>
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</thead>
<tbody>
<tr>
<td>10 Quizzes at 10 points each</td>
<td>approximately every week</td>
<td>100</td>
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<tr>
<td>First Hour Exam</td>
<td>17 February (target)</td>
<td>100</td>
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<tr>
<td>Second Hour Exam</td>
<td>6 April (target)</td>
<td>100</td>
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<tr>
<td>Final Exam</td>
<td>30 April, 8:00-9:00 AM</td>
<td>200</td>
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<tr>
<td>TOTAL</td>
<td></td>
<td>500</td>
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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