

Instructor: Jorge Rivera-Noriega.

Office and Phone number: 767 Patterson Tower, (859) 2574802 (only in weekdays from 8:30 AM to 3:00 PM)

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Class Schedule: Mon, Wed, Fri, 2:00 PM to 2:50 PM at White Hall Classroom Building 335

Office Hours: Tue, Thu 12:00 PM to 2:00 PM.

Basic Course Description: Differential Equations (DE) have been used to describe certain natural phenomena such as falling objects, flow of electricity, vibration of objects, etc. In this course we plan to describe some basic techniques to solve DE, and review some of their basic applications.

1. The textbook used for this course is:

Boyce, W. E. and DiPrima R. C., *Elementary differential equations and boundary value problems*, 8th. edition, John Wiley & Sons, New York, 2005.

We will cover selected parts of the following chapters:

- Chapter 1: Introduction
- Chapter 2: First Order Differential Equations
- Chapter 3: Second Order Linear Equations
- Chapter 4: Higher Order Linear Equations
- Chapter 6: The Laplace Transform

2. Course Evaluation. The final grade consists of a combination of Exams Points and Quizzes Points, where the highest grade will be assigned when achieving 600 points.

The sum of Exam Points is worth up to 500 points. The sum of Quizzes Points is worth up to 100 points. After adding up these points we divide it by 600, and we get a **Percentage Grade**.

The details to obtain Exams Points and Quizzes Points are as follows:

(a) Exams: up to 500 points

There will be three Monthly Exams during class time, worth 100 points each exam. The following are the preliminary dates for each of these exams. Any change will be announced in advance:

Exam 1, on Friday February 10th;

Exam 2, on Friday March 9th;

Exam 3, on Friday April 20th;

A Final Exam is given on Friday May 4th at 2:00 PM, including all the material covered during the semester. This Final Exam is worth 200 points.

(b) Quizzes: up to 100 points

Suggested homework exercises will be assigned in class, and discussed as needed during subsequent periods. However, these assignments will not be collected.

Instead, a Quiz based on the list of exercises will be given weekly, except on the weeks there is a Monthly Exam. Each Quiz is worth up to 15 points.

Any change of dates will be announced in advance.

At the end of the semester only the points of the 7 highest Quiz Scores will be added.

The standard letter grade assigned is as follows:

- a percentage of 0.9 to 1.0 = A
- a percentage of 0.8 to 0.89 = B
- a percentage of 0.7 to 0.79 = C
- a percentage of 0.6 to 0.69 = D
- a percentage of 0 to 0.59 = E

However, there may be a slight curve after the percentages are figured.

Some important dates to remember:

- January 16th – Martin Luther King Birthday: No class
- March 12th to 17th – Spring Vacation
- April 27th — Last day of classes

For a more complete list of important dates in the Academic Calendar check the website

<http://www.uky.edu/Registrar/AcademicCalendar.htm>