

## M302-010 Ordinary Differential Equations

**Lecture Schedule:** MTWRF 8:00 – 9:30 AM in Old College 122

**Instructor:** Todd Gutekunst  
Office: Ewing 331  
Office Hours: MTWRF 11:00 – 12:00  
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**Text:** Boyce and DiPrima,  
*Elementary Differential Equations and Boundary Value Problems*,  
8th ed.

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### Course Content

The following topics will be covered:

- First order differential equations
- Second order differential equations
- Series solutions to differential equations
- Laplace Transforms
- Systems of first order differential equations
- Nonlinear differential equations

These topics correspond to Chapters 2, 3, 5, 6, 7, and 9 in your textbook. Not all sections of these chapters will necessarily be covered, and we may consider material from outside these chapters.

Suggested homework problems will be assigned after each day's lecture. A running list of assigned problems will be maintained on the course webpage under the link "practice problems". Some of the problems may require you to use the Maple software package. Maple is available at all public computing sites on campus. Tutorials will be posted on the course website containing all the information about Maple that you will need to know for this course.

## Assessment

The grading scale will be standard: 92 points and above is an *A*, between 90 and 92 is an *A-*, 88 to 90 is a *B+*, 82 to 88 is a *B*, etc. There will be no curve on the final grades.

Your grade will be determined by two homework sets, two exams, and a participation grade. The apportionment of points is as follows:

Exam Type	Overall Value
Homework submission 1	15 points
Homework submission 2	15 points
First Exam	30 points
Second Exam	30 points
Attendance and Participation	10 points

The first exam will be held Friday, June 27. The second exam will be Saturday, July 12, and will not be cumulative. **Note that a replacement exam will be given only in the case of a documented serious emergency and, where possible, notification is expected to be given to me a minimum of one day before the exam date.**

Each homework assignment will be distributed at least one week before its due date. The homework assignments must be completed independently and communicate your own understanding of the material. If it is clear to me that you are simply copying your classmate's work, the points earned will be divided equally between you and your classmate.

**Academic dishonesty will be prosecuted to the maximum extent allowed under University of Delaware policy.** The University statement on academic dishonesty can be found at

<http://www.udel.edu/stuguide/07-08/code.html#honesty>

To make a long story short, don't cheat.

Since this class moves quickly, attendance is expected every day. Skipping classes is a bad idea, and will impact your participation grade. If you know you will have to miss a class, let me know ahead of time, and speak with me during office hours about the material you missed.

## Office Hours

I encourage you to visit if you have questions about the day's lecture, if you need assistance on the homework assignments, or if you are curious about related topics not covered in the lectures. If you would like to meet with me but are unable to attend my office hours, speak with me after class and we can set up an appointment at a time available to us both.