

## Differential Equations I

Math 3410.003, Fall 2022, MWF 11:00-11:50, BLB 225

**Professor:** Conley, GAB 419, conley@unt.edu

*Assignments, announcements:* [www.math.unt.edu/~conley](http://www.math.unt.edu/~conley)

**Office Hours:** M 2:00-4:00, W 2:30-3:30, F 12:00-1:00

**Text:** *Elementary Differential Equations and Boundary Value Problems*, 11<sup>th</sup> edition, by Boyce, DiPrima, and Meade

**Prerequisites:** Calculus II (1720) with a grade of C or higher is required. Linear Algebra (2700) is recommended, but may be taken concurrently.

**Exams:** There will be two 100 point midterms, both on Wednesdays: Oct. 5 and Nov. 9. There will be a comprehensive 180 point final on Monday, Dec. 12, 10:30-12:30. There will be no make-up exams.

**Homework:** There will be twelve problem sets, worth 10 points each, usually due Fridays (see over). They are due at the beginning of class. If you are late to class or your work is messy or unstapled, I will have to deduct 1 point. Problem sets will not be accepted after class.

**Notes:** You may work on the problem sets together with your friends, but the best way to prepare for the exams is to begin by trying them on your own, looking for help only after making a good effort. It is best to work first on scratch paper and then recopy your solutions.

**Calculators:** Calculators are not allowed during exams.

**Disabled Students:** Please let me know of your disability.

**Topics:** Tentatively, we will cover the following chapters and sections: Chapter 1: Sections 1-2. Chapter 2: Sections 1-3 and 6. Chapter 3: Sections 1-6. Chapter 4: omitted. Chapter 5: Sections 1-6. Chapter 6: Sections 1-3. Chapter 7: Sections 1-8. This list skips most sections not crucial to the flow of the material, allowing us to cover all the main topics in the book.

**Problem Set 1** (due Friday, September 2):

*Section 1.1:* 1, 4, 5, 11, 14, 16, 18

*Section 1.2:* 8

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<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>
8/29 First lecture	8/30	8/31	9/1	9/2 HW 1
9/5 Labor Day	9/6	9/7	9/8	9/9 HW 2
9/12	9/13	9/14	9/15	9/16 HW 3
9/19	9/20	9/21	9/22	9/23 HW 4
9/26	9/27	9/28	9/29	9/30 HW 5
10/3	10/4	10/5 EXAM 1	10/6	10/7
10/10	10/11	10/12	10/13	10/14 HW 6
10/17	10/18	10/19	10/20	10/21 HW 7
10/24	10/25	10/26	10/27	10/28 HW 8
10/31	11/1	11/2	11/3	11/4 HW 9
11/7	11/8	11/9 EXAM 2	11/10	11/11
11/14	11/15	11/16	11/17	11/18 HW 10
11/21	11/22	11/23 No Classes	11/24 Thanksgiving	11/25 No Classes
11/28	11/29	11/30	12/1	12/2 HW 11
12/5	12/6	12/7 HW 12	12/8	12/9 Reading Day
12/12 Final Exam: 10:30-12:30	12/13	12/14	12/15	12/16