Differential Equations I

Math 3410.001, Spring 2023, TR 12:30-1:50, Wooton 217

ATTENTION: syllabus modified due to 3$^{\text{rd}}$ week ice closure

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

Website: www.math.unt.edu/∼conley. Please note that there will be no Canvas page for this course; assignments and announcements will be posted at the course page on my faculty website.

Office Hours: Tuesdays and Thursdays, 2:00-4:00

Text: *Elementary Differential Equations and Boundary Value Problems,* 11$^{\text{th}}$ 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 (dates modified due to ice closure): There will be two 100 point midterms, both on Tuesdays: Feb. 28 and Apr. 11. There will be a comprehensive 180 point final on Thursday, May 11, 10:30-12:30. There will be no make-up exams.

Homework: There will be 12 problem sets, worth 10 points each, due Thursdays, excepting exam weeks. 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 1-5. 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 Thursday, Jan. 19):

> *Section 1.1:* 1, 4, 5, 11, 14, 16, 18
> *Section 1.2:* 8

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MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1/16	1/17 First lecture	1/18	1/19 HW1	1/20
1/23	1/24	1/25	1/26 HW2	1/27
1/30	1/31 ICE CLOSURE	2/1	2/2 ICE CLOSURE	2/3
2/6	2/7	2/8	2/9 HW3	2/10
2/13	2/14	2/15	2/16 HW4	2/17
2/20	2/21	2/22	2/23 HW5	2/24
2/27	2/28 EXAM 1	3/1	3/2	3/3
3/6	3/7	3/8	3/9 HW6	3/10
3/13 Spring Break	3/14	3/15	3/16	3/17
3/20	3/21	3/22	3/23 HW7	3/24
3/27	3/28	3/29	3/30 HW8	3/31
4/3	4/4	4/5	4/6 HW9	4/7
4/10	4/11 EXAM 2	4/12	4/13	4/14
4/17	4/18	4/19	4/20 HW10	4/21
4/24	4/25	4/26	4/27 HW11	4/28
5/1	5/2	5/3	5/4 HW 12	5/5 Reading Day
5/8	5/9	5/10	5/11 Final Exam: 10:30	5/12