Math 2410-003 Spring 2009

Elementary Differential Equations

Text: **Differential Equations** , 6^{th} edition, by Blanchard/Devaney/Hall, Brooks/Cole.
*Outline:*We will study the linear differential equation of first and second order derived from physics and engineering. You will learn some basic methods and techniques to find the exact solutions of some type of differential equations.

Time	MWF 3:02-3:52
Place:	MSB 411
Dr.	Pengwen Chen
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Office hrs	MWF 12:30-1:30 pm, and by appointment at least 24 hours ago.

Grading: Two mid-term exams 25%,25%; final exam 35%; other (quizzes, homework) 10%,5%.

Exams: Mid-terms Wed 02/18 and 04/01; Final exam 05/05, 3:30-5:30. Midterm 1 covers section 1.1 – 1.9. Midterm 2 covers Chapter 2.1 – 2.4 and 3.1 – 3.5.

Week	Dates	Content	Notes
1	01/21-01/23	1.1, 1.2	
2	01/26-01/30	1.3, 1.4	
3	02/02-02/06	1.5, 1.6	M: last day to drop without W.
4	02/09-02/13	1.7, 1.8	
5	02/16-02/20	1.9, 2.1	Exam 1.
6	02/23-02/27	2.2, 2.3	
7	03/02-03/06	2.4, 3.1	
8	03/09-03/13	- -	Spring recess
9	03/16-03/20	3.2, 3.3	
10	03/23-03/27	3.4, 3.5	M: Last day to drop.
11	03/30-04/03	3.6	Exam 2
12	04/06-04/10	4.1, 4.2	
12	04/13-04/17	6.1, 6.2	
13	04/20-04/24	6.3	
14	04/27-05/01	5.1,5.2 Review	

Notes

- Makeup exams will only be given in extreme cases such as a true emergency or illness.
- On Wed, either a quiz is given or homework is collected.

Here is a suggested homework assignment.

- 1.1–1, 3, 5, 8, 15, 16, 19
- 1.2–1, 2, 3, 6, 9, 15, 23, 26, 30, 33
- 1.3–1, 6, 7, 8, 11, 12, 14, 15, 18
- 1.4–2, 5, 6, 12, 13
- 1.5–1, 4, 9, 11, 13, 14
- 1.6–1, 3, 5, 7, 9, 13, 15, 19, 28, 30, 33, 36, 39, 43
- 1.7–1, 3, 5, 7, 9, 11, 20
- 1.8–1, 3, 7, 8, 9, 11, 13, 19, 23, 27
- 2.1–1, 2, 4, 9, 10, 14, 15, 16
- 2.2–1, 3, 4, 7, 10, 13, 15, 16, 27
- 2.4–1, 3, 7, 8, 9, 12, 13, 14
- 3.1–7, 8, 11, 14, 17, 18, 24, 27, 34
- 3.2–1, 4, 5, 7, 11, 13b, 14a, 17, 21
- 3.3–1, 4, 7, 9, 11, 13, 19, 21
- 3.4–1, 5, 7, 11, 13, 15, 22, 23
- 3.5–1, 4, 7, 9, 11, 15, 19, 22a
- 3.6–1, 2, 4, 5, 8, 9, 13, 15, 18, 21, 23, 30, 35
- 4.1–1, 3, 5, 11, 14, 17, 20, 21, 27, 31, 33, 36, 39
- 4.2–1, 6, 9, 11, 14, 15, 16, 17
- 6.1–1, 3, 7, 9, 11, 15, 17, 27
- 6.2–1, 3, 5, 9, 13
- 6.3–1, 3, 7, 9, 11, 15, 27, 31
- 5.1–1, 4, 5, 6, 9, 17, 21
- 5.2–1, 4, 7, 15, 21