

# Mw427K Summer 2009

## Unique No. 91550, 91555

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**Rules:** Don't miss class. Don't be late. Don't buy plane tickets which conflict with exams. Don't pack up early. Staple homework. Don't be rude.

**Text:** (Required) *Elementary DEs and BVPs* 8th Ed., Boyce and DiPrima.

**Students with disabilities:** The University of Texas at Austin provides, upon request, appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY

<b>Grading:</b> Homework/Attendance:	10%
8 Quizzes:	40%
Midterm	20%
<u>Final Exam:</u>	<u>30%</u>
Total:	100%

90% is at least an A, 80% is at least a B, etc.

**Exams and Quiz Dates:** Nearly chiseled in stone, the date for the midterm exam is Monday July 20. Quizzes are every Thursday in the discussion session. There won't be a quiz on July 16th before the Midterm. The Final will be scheduled by the Registrar on either the 15th or 17th of August. Exams will be closed-book, closed-notes, and no-calculator.

**Homework** Assignments are on the next page and are subject to change. Due dates are announced in class and no where else. Late home work will not be accepted, and it hurts to ask. Homework is due at the *beginning* of the discussion session. Staple multiple pages and polish your work; we take points off for missing staples and sloppy or disorganized work.

**Overview** A differential equation is an equation relating the derivatives of an unknown function to each other. The goal of this course is to learn various techniques for finding such unknown functions and using these techniques to solve physical problems. After studying first and second-order equations, we look at the Laplace transform methods and then at partial differential equations.

### **Assignments:**

Work the following problems at the appropriate time, as announced in class. Underlined problems have no counterpart in the 7th edition. Numbers in parentheses are the 7th edition number, if it's different from the 8th edition number.

Section	Warm-up Exercises	Hand-in Exercises
1.1	3, 4, 11, <u>23</u> , 29(22)	2, 14, 21(15), 33(26)
1.2	1, 8(7), 14(12)	2ac, 7(6), 9(8), 12(10), <u>16</u> , 18(14)
1.3	2, 4, 9, 17, 25	12, 14, 18, 20

Section	Warm-up Exercises	Hand-in Exercises
2.1	2, 16, 18, <u>42</u>	14, 15, 19, 28(26), <u>41</u>
2.2	3, 8, 11, 15, 31ab	2, 6, 14, 20, 24, 36ab
2.3	1, 2 20(21), 23(24)	3, 13(15), 16(18), 21(22), 22(23)
2.4	1, <u>2</u> , 8	3, 7, 14, 18, 25, 28
2.5	3, 9, 12	8, 10, 13
2.6	3, 6, 13, 25, 27	2, 4, 8, 12, 14, 19, 28
2.7		2, 11a, 12a
2.8	3	4, 7, 14
3.1	3, 5, 7, 10, 11	4, 6, 12, 16, 20
3.2	3, 7, 12, 29(28)	6, 11, 13, 22, 25, 30(29)
3.3	1, 7	<u>2</u> , 4, 9
3.4	2, 3, 9, 39	5, 8, 12, 17, 20, 23, 40
3.5	5, 6, 14, 23, 24, 27	8, 12, 26, 28, 41
3.6	1, 3, 8, 13, 18, 22a	4, 6, 14, 24a
3.7	2, 7, 13, 15	5, 6, 10, 16, 17
3.8	3, 4	5, 6, 11, 17
3.9	2, 3	5, 7, 10
4.1	3, 11, 18	4, 8
4.2	5, 8, 11, 29	12, 14, 24, 33
4.3	2, 11	9, 16
4.4	4, 12	10, 13
5.1	1, 5, 9, 14, 21, 22	7, 16, 24
5.2	1, 3, 11, 15	5, 6, 12, 18
5.3	1, 3, 6, 11	2, 7, 14
5.4	2, 3, 6, 8	4, 5, 13, 16
5.5	3, 5	6, 10, 14, 17
5.6	3, 6, 7	4, 8, 9
6.1	2, 4, 5, 15, 16, 26	6, 8, 9, 18, 19, 27
6.2	1, 3, 7, 11, 12, 29	4, 9, 16, 24, 30, 33
6.3	1, 2, 4, 7, 9	12, 14, 15, 18, 21, 27, 31
6.4	1, 3	5, 7, 10
6.5	1, 2, 5	3, 7, 9
7.1	3, <u>5</u>	4, 15, 23
7.2	4, 6, 8, 21cd	24, 26
7.3	15, 17	13, 18
7.4	6	5, 7
7.5	1, 2, 3	4, 8, 9, 15
7.6	1, 2, 9	6, 10, 12abc
7.8	1, 2, 5, 9	4, 8, 10
10.1	1, 2, 3, 14, 16	4, 7, 10, 12, 18, 19
10.2	4, 7, 9, 12	13, 14, 18, 20, 21
10.4	2, 3, 4, 7	5, 14, 15, 17, 18, 25
10.5	1, 2, 3, 5	7, 8, 10, 15, 18
10.7	1, 5	4, 8, 10