

# MATH 242: SECTION 101 - ELEMENTARY DIFFERENTIAL EQUATIONS

Lecture: M, T, W, Th                      3:30pm - 4:55pm                      LeConte 310

## Instructor

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Office Hours: T, Th 1:00pm-2:00pm (or by appointment)

**Course Description:** The lectures will be used for covering new material. The student will read the section to be covered in the lecture prior to the lecture. The instructor will present new and additional material, answer questions and work examples. Homework will be assigned to each lecture. There will be 8-10 recitation quizzes in the course covering the homework problems assigned.

**Learning Outcomes:** A student who successfully completes the course should develop as an independent learner and problem solver with the ability to approach problems from a conceptual viewpoint, to utilize more than one idea in a single problem, and to apply appropriate calculus skills to problems in context. The successful student will master concepts and gain skills needed to solve problems related to initial value problems and their particular and general solutions, integrating factors, substitution, variation of parameters, undetermined coefficients, Laplace transform, approximations and will be able to apply these to differential equations to solve mixture, cooling, mechanical vibrations or electrical circuit problems.

**Prerequisite(s):** qualification through placement or a grade of C or better in math 241.

**Calculators:** calculators will not be allowed for the tests and quizzes.

**Text(s):** *Differential Equations: Computing and Modeling*, by C. Henry Edwards and David E. Penney, 5th edition, Pearson, ISBN 978-0-321-81624-2, 2015.

### Grade Distribution:

Quizzes	30%
Midterm Exam I	15%
Midterm Exam II	15%
Midterm Exam III	15%
Final Exam	25%

### Letter Grade Distribution:

$\geq 90.00$	A	70.00 - 74.99	C
85.00 - 89.99	B+	65.00 - 69.99	D+
80.00 - 84.99	B	60.00 - 64.99	D
75.00 - 79.99	C+	$\leq 59.99$	F

## COURSE POLICIES AND EXPECTATIONS

Participation: Participants are expected to attend every class meeting and to get involved in the discussion. We will learn much more if we explore the mathematics together. Out-of-class participation is also expected, so read the text and other classroom materials. Get to know the other students in class; exchange phone numbers; work together on assignments; and give each other moral support.

Cell Phones: Make sure that your cell phone is off and away during our sessions.

Attendance: Attendance will not be taken. We are all adults here.

Academic Integrity: I expect you to familiarize yourself with the Honor Code found in the current student handbook. Keep in mind that Any student who violates this Honor Code or who knowingly assists another to violate this Honor Code shall be subject to discipline.

Students with Disabilities: Students who would like to request accommodations for disabilities must to talk to me as soon as possible. Students must register with the Office of Student Disability Services before I can make any accommodations.

Make-Up Policy: Exams can be made up ONLY in the case of an emergency, and ONLY if you request a make-up exam before the scheduled time. It is your responsibility to contact me within a reasonable time to request a make-up exam. Make-up quizzes will not be allowed. I will drop your lowest quiz grade at the end of the semester.

# ADDENDUM

## TESTING AND GRADING POLICIES

Below I will outline my testing and grading policies. Of course, policies can (and may) change as the semester progresses - I will let you know if this is to occur.

**QUIZZES** One or two quizzes will be given weekly. In general you can expect 1-2 questions on the quiz and you will have 15 minutes to complete them. Questions for the quizzes will be selected to reflect the material covered in the past 2-3 classes. Doing your homework and understanding the nature of the homework problems assigned is the best way to prepare for quizzes. In fact, homework problems will commonly double as questions for the quizzes.

**EXAMS** Midterm Exams:

Due to the time constraint of summer courses midterm exams will be biweekly (see schedule below). Calculators (and other electronic devices) will not be permitted during exam. A typical exam will have 4-5 exercises covering the material and you will be given 75 minutes to complete it.

Exam Grading:

Each exercise will be assigned a number of points indicated on the exam. Full credit will show that you had full understanding of the question and did all math properly. Missing a few points will indicate that the understanding of the question was there, but some math was done incorrectly. The correct answer with no work will receive 0 points.

Class #	Date	DAY	Proposed Topic	Homework (odd #'s only)
1	5/8	M	1.1	1-9, 13-21, 27-41
	5/8	M	1.2	1-17, 25-33
2	5/9	T	1.2	1-17, 25-33
	5/9	T	1.3	1-5, 11-17
3	5/10	W	1.4	1-15, 19-23, 33-45, 49-61
4	5/11	Th	1.5	1-25
5	5/15	M	1.5	31-41
	5/15	M	1.6	1-21, 31-39, 43-51, 57-61
6	5/16	T	2.1	1-5, 9-21
	5/16	T	REVIEW	
7	5/17	W	EXAM I	
8	5/18	Th	LIBRARY DAY	
9	5/22	M	2.2	5-21
	5/22	M	2.3	1-11, 19-25
10	5/23	T	2.4	1-5, 11-15, 25
	5/23	T	2.5	1-5
11	5/24	W	3.1	1-47
	5/24	W	3.2	1, 7-17, 21-25
12	5/25	Th	3.3	1-31
13	5/30	T	3.4	1-17 (odd), 24-26 (all)
14	5/31	W	3.5	1-27, 31-37, 57-59
15	6/1	Th	3.6	1-6 (all)
16	6/5	M	3.7	1, 7, 11-15
	6/5	M	REVIEW	
17	6/6	T	EXAM II	
18	6/7	W	7.1	1-31, 35-41
19	6/8	Th	7.2	1-5, 11-23 (odd) 27-33 (all)
20	6/12	M	7.3	1-21, 27-35
21	6/13	T	7.4	1-33
22	6/14	W	7.5	1-29, 33-37
23	6/15	Th	REVIEW	
24	6/19	M	EXAM III	
25	6/20	T	4.1	1-7, 17-25
26	6/21	W	4.2	1-11
27	6/22	Th	REVIEW	
	6/23	F	FINAL EXAM	4 pm