

MAP2302 Elementary Differential Equations Online

Summer B 2020

Section: 4D15(12341) online

Instructor: Carol Demas, LIT323, email: demasc@ufl.edu

Online Office/Conference Hours: MTRF 9:30-10:30 through Zoom Conferences or by appointment except for exam days. **Attendance is required** at least one day per week. If you have valid documentation for missing an entire week, you must contact your instructor for an alternative assignment. Conference attendance comprises 3% of the grade.

Canvas Messages: Check your messages **daily** so that you do not miss any important announcements.

Text: Fundamentals of Differential Equations by R. Kent Nagle, Edward B. Saff and Arthur David Snider, ninth edition, ISBN-13: 978-0321977069, ISBN-10: 0321977068. You may use the eighth edition if you prefer.

Requirements: A hardwired connection (not wireless) is strongly recommended when working on quizzes, exams and /or submitting assignments. It is the student's responsibility to have a reliable internet connection, adequate internet speed (check with Honorlock and do a system check prior to the exam) and cleared cache and cookies before each exam. Webcams are required for online exams.

Time commitment: University students are expected to spend at least 3 hours for each hour watching lecture videos in order to keep up with the course material.

Content: We will cover Chapters 1(Introduction), 2(First Order ODEs), 4(Second Order ODEs), 7(Laplace Transforms), and some of 8(Series Solutions).

Lecture Quizzes: Each lecture has a brief online quiz in Canvas. Lecture quizzes are worth 8% of the grade. The lowest three scores are dropped. Each lecture quiz has two attempts.

Homework: Doing homework is essential to success in this course and is one of the best ways to prepare for quizzes and tests. Online homework is completed in Canvas. Homework is worth 8% of the grade. The lowest three scores are dropped. Each homework has three attempts. Students who miss parts of a multiple-part question should feel free to ask about which parts were missed.

Quizzes: There will be ten quizzes covering 2-4 lectures with one attempt each. The lowest two scores are dropped. Quizzes are worth 8% of the course grade.

Discussion board: There is one discussion board for each exam period. Students must ask (1pt) and answer (1 pt) at least one question per exam period. Please show your work! The question must not have already been asked so read the boards daily. If you ask a question that has been answered in an online conference, you will be directed to watch the video of that conference unless you require specific clarification. The discussion board comprises 3% of your grade. Discussion boards are locked at 10 PM the night before each exam. Late submissions are not possible.

Practice Exams: Four online practice exams are due on the dates shown in the calendar. Practice exams are worth 4% of your grade. The lowest score is dropped. Each practice exam has one attempt. Late submissions are not possible as practice exams are reviewed the day after the due date.

Exams: Four exams will be given through Honorlock on the dates shown in the calendar. The fourth exam is comprehensive. Each is worth 17.5% of your grade. A hardwired connection (not wireless) is strongly recommended when working on quizzes, exams and /or submitting assignments. It is the student's students responsibility to have reliable internet connection, sufficient internet speed and cleared cache and cookies before each exam. Webcams are required for use of Honorlock.

Grades: The letter grade will be awarded as follows:

| | | | |
|----|----------|-----|---------|
| A | 90%-100% | C | 70%-74% |
| A- | 87%-89% | C-* | 67%-69% |
| B+ | 85%-86% | D+ | 64%-66% |
| B | 80%-84% | D | 60%-63% |
| B- | 77%-79% | D- | 57%-59% |
| C+ | 75%-76% | E | 0-56% |

Grades ending in 0.5 or higher are rounded up. If you have a grade dispute, please resolve it with your instructor within a week of the assignment deadline. Your grade is comprised of the following:

4 Exams 17.5% each

Quizzes 8% (drop two lowest scores)

Lecture Quizzes 8% (drop lowest three scores)

Homework 8% (drop lowest three scores)

Practice Exams 4% (drop lowest score)

Discussion board 3%

Conference Attendance 3% (attend at least once per week, drop lowest score)

Total: 104% (there are four extra credit points built in to the course).

Accommodations for students with learning disabilities: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting disability.ufl.edu/students/get-started

Academic Honesty: The course will be conducted in accord with the University honor code and academic honesty policy which can be found at www.dso.ufl.edu/sccr/honorcodes/honorcode.php. The Mathematics Department expects you to follow the Student Honor Code. We are bound by university policy to report any instance of suspected cheating to the proper authorities.

In addition, we remind you that lectures and the lecture notes given in this class are the property of the University/faculty member and may not be taped/shared without prior permission from the lecturer and may not be used for any commercial purpose. Students found to be in violation may be subject to discipline under the Student Conduct Code.

Makeup Exams: If you miss an exam with valid documentation, you may take a Makeup on Monday August 10. If you miss without valid documentation, there will be a 10% penalty for its replacement. Valid documentation includes documented illness, court-ordered or military appointments, and religious holidays. If you miss a second exam, the comprehensive fourth exam will replace it.

Late submissions: Homework, lecture quizzes, and quizzes can be submitted late with a 20% penalty for each day beyond the due date.

Evaluations: Course evaluations are now at <https://gatorevals.aa.ufl.edu/>

Exam Coverage

Exam 1 covers 1.1-1.4, 2.2-2.6 (L1-L9)

Exam 2 covers 4.2-4.7 (L11-L17)

Exam 3 covers 7.2-7.6, 7.8-7.9 (L18-L24)

Exam 4 is comprehensive, approximately 33% chapter 8 (L25-L28) and 67% chapters 1-2, 4, and 7.(L1-9, 11-17, 18-24)

Final Exam: August 14

Tentative Schedule with due dates (subject to possible revision)

| Sun | Mon | Tues | Wed | Thur | Fri | Sat |
|-----------------------------|---------------------------------|---|------------------------|----------------------------|--|----------------------------|
| July5 | July6 | 7 | 8 | 9 | 10 | 11 |
| | | LQ1-2 due HW1-2 due Syllabus quiz due | LQ3 HW3 Q1(L1-3) | LQ4 HW4 | LQ5 HW5 | LQ6 HW6 Q2(L4-6) |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| LQ7 HW7 | LQ8 HW8 | LQ9 HW9 Q3(L7-9) | PE1 | Review DB1 | Exam1 (L1-9) | LQ10 HW10 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| LQ11 HW11 | LQ12 HW12 | LQ13 HW13 Q4(L11-13) | LQ14 HW14 | LQ15 HW15 Q5(L14-15) | LQ16 HW16 | LQ17 HW17 Q6(L16-17) |
| 26 | 27 | 28 | 29 | 30 | 31 | Aug1 |
| PE2 | Review DB2 | Exam2 (L11-17) | LQ18 HW18 | LQ19 HW19 | LQ20 HW20 | LQ21 HW21 Q7(L18-21) |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| LQ22 HW22 | LQ23 HW23 | LQ24 HW24 Q8(L22-24) | PE3 | Review DB3 | Exam3 (L18-24) | LQ25 HW25 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| LQ26 HW26 Q9 (L25-26) | LQ27 HW27 Exam 1-3 makeup | LQ28 HW28 Q10(L27-28) | PE4 | Review DB4 | Exam 4 (L1-9, 11-17, 18-24, 25-28) | |

HW: 28 homework (3 attempts, drop 3 lowest) due 11:59 PM

LQ: 28 lecture quizzes (2 attempts, drop 3 lowest) due 11:59 PM

Q: 10 quizzes (1 attempt, drop two lowest) due 11:59 PM

DB: 4 discussion boards (ask and answer questions) due 10 PM

PE: 4 practice exams (1 attempt, drop 1 lowest) due 11:59 PM

Tentative Book HW for extra practice (not collected for grade)

| 9th edition (mechanical clock) | | 8th edition (apple) | |
|--------------------------------|---|---------------------|--|
| section | problems | section | problems |
| 1.1 | 1-11 odds | | same |
| 1.2 | 1-11 odds, 21-27 odds | | same |
| 1.3 | 1-7 odds, 11-17 odds | | same |
| 1.4 | 1,3,5, take two steps only | | same |
| 2.2 | 1-25 odds | | same |
| 2.3 | 1-21 odds | | same |
| 2.4 | 1-25 odds | | same |
| 2.5 | 1-11 odds | | same |
| 2.6 | 1-27 odds | | same |
| 1st order apps | 2.4 33, 3.2 23-25 3.3 1-5 odds | | same |
| 4.2 | 1-19 odds, 27-31 odds | | same |
| 4.3 | 1-25 odds | | 1-17 odds, 21-25 odds |
| 4.4 | 1-25 odds, 27-31 odds | | same |
| 4.5 | 9-35 odds | 4.5 | 11-19 odds, 23-25 odds, 31-35 odds |
| 4.6 | 1-9 odds, 11 | | same |
| 4.7 | 9-13 odds, 19-20, 41-44 | 4.7 | 9-13 odds, 19-20, 37-39 odds, 45-47 odds |
| 7.2 | 1-19 odds | | same |
| 7.3 | 1-9 odds, 13-17 odds, 25 | | same |
| 7.4 | 1-25 odds | | same |
| 7.5 | 1-7 odds, 12, 15-23 odds, 35 | | same |
| 7.6 | 1-17 odds, 21-23 odds, no sketch | 7.6 | 1-17 odds |
| 7.8 (convolution) | 1-21 odds, 23, 25 | 7.7 (convolution) | 1-21 odds, 23, 25 |
| 7.9 (dirac delta) | 1-17 odds, no sketch, 25, 27 | 7.8 (dirac delta) | 1-17 odds, no sketch, 25, 27 |
| 8.1 | 1-5 odds, 9a | | same |
| 8.2 | 1-5, odds, 11-13 odds, 17-27 odds, 29, 33 | | same |
| 8.3 | 1-27 odds | | same |
| 8.4 | 1-15 odds | | same |