Math 214–DL1 (Elementary Differential Equations)
Spring 2022

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Office hours: TR 10:30am–12:00pm, and by appointment.
Text: Boyce, DiPrima, and Meade *Elementary Differential Equations* (Eleventh Edition)
Topics: The course will cover portions of Chapters 1–4, and Chapters 6–7 in the text. Precise sections covered are indicated in the list of exercises accompanying this syllabus.

Deadlines: Please be aware of all relevant deadlines, especially the drop deadlines. You will receive your grade on the first exam before the unrestricted withdrawal deadline. This grade should be a strong indicator of how well you will do in the course. Use it to decide whether to stay or drop. The student who is undecided about what to do should talk with me before deciding. More information can be found at the registrar's website https://registrar.gmu.edu.

Method of Instruction: This course is an asynchronous distance-learning class and instruction will be entirely online, **but the midterms and final exams will be in-person**. Students will be required to learn the content of the course through reading the textbook, working problems, and viewing recorded lecture videos that will be posted on Blackboard. In addition, students will be required to attend their recitation section weekly each Monday which will be run by the graduate teaching assistant for the class. In recitation, students can get their questions answered and will be given worksheets that will be worked on in groups. This course also has a learning assistant who will be assisting the teaching assistant in recitation, and who will himself hold office hours.

Additional Support: In addition to recitation, the instructor, the teaching assistant, and the learning assistant will have scheduled office hours during which you can get help. I also recommend the Mathematics Tutoring Center. Information on this and other sources of help can be found here
https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring.

Blackboard: The Blackboard page for this course contains announcements and useful information for students. Solutions to exams, handouts, and this syllabus will be made available in downloadable form. **You are responsible for checking the web page regularly so that you will not miss important information.**

Grading:

Homework. Included with this syllabus is a list of homework exercises for the course. Homework will not be collected but it is absolutely essential that you do the homework problems in a timely fashion in order to do well on the midterm exams. The assigned problems are representative of the test questions.

Worksheets. Each week in your recitation section, you will be given a worksheet containing problems related to the material that you viewed the previous week. These worksheets will be worked on in recitation in groups. It is important that you complete these worksheets even if you do not get them finished in recitation. You will receive a grade of 0, 1, or 2 for each recitation based on attendance and participation.**Your recitation grade will count for 10% of your final grade.**

Exams: Midterm exams will be given on Saturday, February 12, Saturday March 5, and Saturday, April 9. The exams will be given in-person on campus on the GMU Fairfax campus. The exact location and time of the exams will be announced as soon as they are known. Makeup exams will not be given except in cases of extreme hardship and then only when the student has contacted me **in advance**. If I am not contacted in advance, then no makeup exam will be given. **Each midterm exam will count for 20% of your final grade.**

Final Exam: There will be a cumulative final exam given on Saturday, May 14, 2022, room and time to be announced. **The final exam will count for 30% of your final grade.**

Grading Scale:

A+:	**99 +;**	**A:**	**92 - 98;**	**A-:**	**90 - 91;**
B+:	**88 - 89;**	**B:**	**82 - 87;**	**B-:**	**80 - 81;**
C+:	**78 - 79;**	**C:**	**72 - 77;**	**C-:**	**70 - 71;**
		D:	**60 - 69;**		
		F:	**0 - 59.**		

There will be no curve.

Week by Week Description of the Course (tentative)

Week 1 (1/24 – 1/28): Sections 1.1 – 1.3.
Week 2 (1/31 – 2/4): Sections 2.1 – 2.3.
Week 3 (2/7 – 2/11): Section 2.4, 2.6; Midterm Exam 1 – 2/12/2022.
Week 4 (2/14 – 2/18): Sections 3.1 – 3.3.
Week 5 (2/21 – 2/25): Sections 3.4, 3.5.
Week 6 (2/28 – 3/4): Sections 3.6 – 3.8; Midterm Exam 2 – 3/5/2022.
Week 7 (3/7 – 3/11): Sections 4.1 – 4.3.
Week 8 (3/21 – 3/25): Sections 4.4, 6.1, 6.2.
Week 9 (3/28 – 4/1): Sections 6.3 – 6.5
Week 10 (4/4 – 4/8): Sections 7.1 – 7.3; Midterm Exam 3 – 4/9/2022.
Week 11 (4/11 – 4/15): Sections 7.4, 7.5.
Week 12 (4/18 – 4/22): Sections 7.6, 7.7.
Week 13 (4/25 – 4/29): Sections 7.7, 7.8.
Week 14 (5/2 – 5/6): Review; Final Exam 5/14/2022.

Homework Exercises

Section	Exercises
1.1	1-13 (odd)
1.2	3, 7, 11
1.3	1-15 (odd)
2.1	1-11 (odd)
2.2	1-9 (odd)
2.3	1, 5, 7, 9
2.4	1-13 (odd)
2.6	1-11 (odd), 15, 19, 21
3.1	1-13 (odd)
3.2	1-11 (odd), 17
3.3	3-13 (odd)
3.4	1-11 (odd)
3.5	1-13 (odd), 17(a)
3.6	1-13 (odd)
3.7	1, 3, 5
3.8	1-7 (odd)
4.1	1-11 (odd), 17
4.2	1-9 (odd)
4.3	1-7 (odd), 11, 13
4.4	1, 3, 5
6.1	1-19 (odd)
6.2	1-15 (odd)
6.3	1-15 (odd)
6.4	1-7 (odd)
6.5	1-7 (odd)
7.1	1-9 (odd)
7.2	1-19 (odd)
7.3	1-7 (odd), 15, 17, 19
7.4	1-5 (odd)
7.5	1(b), 3(b), 5(b), 7, 9, 11
7.6	1(b), 3(b), 5, 7
7.7	1-7 (odd)
7.8	1-7 (odd)