

Math 307, **Differential Equations**, CRN 14274

TR 4:20-5:35pm, HLTH2000
Fall 2008

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OFFICE HOURS: MW 1:30-3:30pm or by appointment

CATALOGUE DESCRIPTION: Topics include first order differential equations and systems, second and higher order linear equations, solution by series and Laplace transform, and applications.

PREREQUISITE: Math 212

GOALS & OBJECTIVES: To continue to build understanding of key concepts of applied mathematics and apply these to various other academic disciplines.

TEXTBOOK: A First Course in Ordinary Differential Equations, D.G. Zill, 9th Edition, Brooks/Cole.

HONOR SYSTEM: By enrolling in this course you agree to adhere to the honor code on all written work: "I pledge to support the Honor System of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the Honor Code. I will report to a hearing if summoned." During exams, spread out and don't sit next to another student, if possible. Keep your eyes on your own paper and don't talk with other students. The Pledge Signature Line will be required on all written work turned in for a grade. However, you are free to collaborate on any homework exercises not turned in for a grade.

ANY STUDENT CAUGHT COMMITTING AN HONOR CODE VIOLATION WILL RECEIVE AN F FOR THE COURSE, AND REFERRAL TO THE HONOR COUNCIL.

CLASS POLICIES:

- Attendance will not be taken.
- Show all work on arriving at your answers.
- Suggested problems will be assigned regularly.
- Each student is responsible for all assignments given and material covered in class.
- Calculators may **not** be used on quizzes and tests.
- Weekly quizzes (about 15 minutes long in class or take-home) will be given. The vast majority of quiz problems will be exactly the assigned homework problems.

WRITING POLICIES: The quizzes and tests may require that you respond in writing to present a solution, derivation or proof. All such work, whether it uses standard or symbolic writing, must be presented in a clear and logical form, and be reasonably free of spelling, grammar and punctuation errors.

GRADING SYSTEM: A: 92-100%, A-: 90-91
B+: 88-89, B: 82-87, B-: 80-81
C+: 78-79, C: 72-77, C-: 70-71
D+: 68-69, D: 62-67, D-: 60-61
Below 60%: F

There will be:	2 tests + weekly quizzes (=1test)	=	70%
	<u>1 final exam, (comprehensive)</u>	=	<u>30%</u>

The two lowest weekly quizzes will be dropped. No make-up quizzes or tests. If you miss a test for a valid documented reason, your score on the final may be substituted for that test.

IMPORTANT DATES:

LAST DAY TO Drop with no grade: Friday, Aug 29, 2008

Labor Day Holiday: Monday, Sept 1, 2008

FALL BREAK: Sat-Tue, Oct 11-14, 2008

LAST DAY TO WITHDRAW: Tuesday, Nov 4, 2008

FINAL EXAM: Monday, Dec 8, 2008, 3:45-6:45pm

DISABILITY SERVICES: The instructor realizes that a student may have special needs. All reasonable accommodations will be made. Please inform the instructor of your special needs. Only those students who have been documented at the Office of Disability Services (683-4655) will be eligible for these accommodations.

The 9th Edition

Read Sections	Homework Problems
1.1 to 1.2	P.10 #1-10; 11-35 odd; P.17 # 1, 7, 12, 15, 16, 29 Ch.1 Review: 9-14, 24
2.1 to 2.3	P.43 # 21,24,25,26. P.50 #4-18 even, 19, 20, 22, 25, 32. P.60 #1-13 odd, 17,22,27,29
2.4 to 2.5	P.68 #1-21 odd; 27,29,30; 31-37 odd; 44. P.74 # 1-25 odd. Ch.2 Review: 10a-n .
3.1 to 3.2	P.89 #1-25 odd, 27, 29, 30 Ch.3 Review: p.115 13,14
4.1,4.2	P.128 #1-11,15-29 odd., 34-36,38. P.132 3,4,5,7,8,9,10,12,13,14.
4.3 ,4.4,4.6	P.136 #1-23 odd; 33,35,42;43,45;49-51 P.148 #1-17odd; 27,33,37. P.161 # 1-9odd,24,25
4.7	P. 168 #1-25 odd, 19,23; 31, 33-36
5.1.1-5.1.2	P.194 #3-11 odd; P.195 #21,23,25
5.1.3- 5.1.4	P.196 #29,30,31 P.198 #45,46,49,51
7.1 - 7.3	P.261 #1,5,6;19-41o; 42 P.269 #1-35o; 41,42 P.278 1-19o; 27,33; 37-47o;55-57; 63,65
7.4-7.6	P.290 #1-33;37-41) odd; P.300 #1-35 odd. P.295 # 1-12 odd. P.299 # 1-11odd
6.1-6.3	P.230 #1-4; 9-12; 13-16;17,19. P. 239 #1-23 odd, 31 P.250 #5

The 8th Edition

Read Sections	Homework Problems
1.1 to 1.2	P.10 #1-10; 11-35 odd; P.16 # 1, 7, 12, 15, 16, 29 Ch.1 Review: 9-14, 24
2.1 to 2.3	P.48 # 21,24,25,26. P.54 #4-18 even, 19, 20, 22, 25, 32. P.65 #1-13 odd, 17,22,27,29
2.4 to 2.5	P.73 #1-21 odd; 27,29,30; 31-37 odd; 44. P.79 # 1-25 odd. Ch.2 Review: 8a-n .
3.1 to 3.2	P.98 #1-25 odd, 27, 29, 30 Ch.3 Review: p.122 17,18
4.1,4.2	P.137 #1-11,15-29 odd., 34-36,38. P.141 3,4,5,7,8,9,10,12,13,14.
4.3 ,4.4,4.6	P.147 #1-23 odd; 33,35,42;43,45;49-51 P.158 #1-17odd; 27,33,37. P.172 # 1-9odd,24,25
4.7	P. 178 #1-25 odd, 19,23; 31, 33-36
5.1.1-5.1.2	P.207 #3-11 odd; P.208 #21,23,25
5.1.3- 5.1.4	P.209 #29,30,31 P.211 #45,46,49,51
7.1 - 7.3	P.283 #1,5,6;19-41o; 42 P.292 #1-35o; 41,42 P.301 1-19o; 27,33; 37-47o;55-57; 63,65
7.4-7.6	P.312 #1-33;37-41) odd; P.324 #1-35 odd. P.318 # 1-12 odd. P.322 # 1-11odd
6.1-6.3	P.248 #1-4; 9-12; 13-16;17,19. P. 257 #1-23 odd, 31 P.268 #5