Math 307 Ordinary Differential Equations Syllabus

Prerequisites:

Algebra, Trigonometry, Calculus I and II, or equivalent. If you are weak in these prerequisites it is your responsibility to review necessary algebra, trigonometry or calculus techniques as they occur during the course.

Textbook:

S.L. Ross, Introduction to Ordinary Differential Equations

John Wiley and Sons, 4th edition, 1989

Course Objectives:

To obtain knowledge of: (i) First order differential equations and applicable solution techniques, (ii) Solution techniques for Second and higher Order differential equations, (iii) Solution by series methods, (iv) The use of Laplace Transforms and their properties to obtain solutions to differential equations, (v) Applications of differential equations to selected engineering and scientific problems.

homework policy:

Homework will be assigned each week except for exam weeks. The assigned homework problems are to be turned in on the date specified and so late homework is **not accepted**. If you miss class it is your responsibility to get the homework assignment.

Grading System:

	/Homework		(Average of)		/Final \
Final Grade = (0.20)	average	+(0.50)	3 tests	+(0.30)	\mathbf{Exam}
	()			<)
$97 - 100 A^+$	87 - 89	B^{+} 77	$-79 C^+$	67 - 69	D^+
94 - 96 A	84 - 86	<i>B</i> 74	-76 C	64 - 66	D
$90 - 93 A^-$	80 - 83	<i>B</i> ⁻ 70	-73 C^{-}	60 - 63	D^{-}

Less than 60 is a failing grade.

Final Exam

There is a common final exam for all sections of math 307. The date, time and room number will be announced the last week of classes.

Last day to withdraw

See registration schedule booklet.

Approximate schedule and material to be covered.

Week	Read Sections	Suggested Homework Problems	
1	1.1 to 1.3	P.4 #1-10,P.11 #1-7, P.21 #1-8, P.36 #1-23(odd)	
2	2.1 to 2.3	P.46 #1-25(odd) P.56 #1-31(odd) P.59 #1-10 P.78 #1,2,3,5,10 P.88 #1-11(odd)	
3	3.1 to 3.3	P.102 #1-9(odd) P.122 #1,3,4,5,7 P.132 #1,3,5,7,11	
4	4.1,4.2 TEST #1	P.143 #1-61(odd)	
5	4.3 to 4.5	P.159 #1-63(odd) P.169 #1-27(odd)	
6	4.6, 5.1	P.176 #1-31(odd)	
7	5.2 to 5.4	P.197 #1-9(odd), P.208 #1,3,4,6,9,11,15 P.217 #1,2,3,4,8	
8	5.5,5.6 TEST $#2$	P.224 #1,2 P.232 #1,3,4,5,7	
9	9.1	P.488 #1-7(odd) P.496 #1-17(odd)	
10	9.2 to 9.3	P.504 #1-29(odd) P.509 #1,3,5	
11	9.4 to 9.5	P.519 #1-21(odd) P.527 #1-23(odd) P.533 #1-11(odd) P.542 #1-9(odd)	
12	6.1 TEST #3	P.249 #1,5,9,13,17	
13	6.2 to 6.3	P.269 #1,5,9,13,17,21 P.280 #1-6	
14	6.3	REVIEW, SAMPLE FINAL EXAM	
15	FINAL		

Honor Code:

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.

During exams spread out as much as possible and try not to sit next to another student. The instructor reserves the right to relocate any student(s) to ensure the Honor Code is not compromised. An Honor Code Signature Line is 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.

Writing Policy:

The exams and homework exercises will require that you respond in writing to present a solution, derivation or proof. All 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. To receive full credit on homework and exams, show all work in arriving at your answers.

Computing Policy:

The student is permitted to use a hand-held scientific calculator on homework exercises and on tests.

Attendance Policy:

A student who must miss class is expected to get the notes from other students. Students are expected to be present for all quizzes, tests and exams. Although excessive absences can have a negative effect on a students learning and performance, absences from class are not counted.

Make-up Exam Policy:

A make-up exam will be offered in the case of documented illness and in other exceptional circumstances for which the student can provide documentation for his or her absence. No other work can be made up under any circumstances. It is not possible to guarantee that a make-up exam has the same difficulty level as the scheduled exam. In fact make-up exams will be cumulative in nature and consquently much harder than the scheduled exam. Therefore, a student is encouraged to be present for all exams, quizzes and tests.