

MATHEMATICS 309B AUTUMN, 2007

Instructor : Prof. Curtis Office hours: (Padelford C548) Tue, Thurs 11:45 - 1:00

There will be two hour tests (100 points each) and a final (200 points). There will be 2 or 3 quizzes (50 points each). based on the current assignments. The first quiz will be Monday, Oct 8. Each HW assignment will be given a due date, and each one counts 10 points. The scores of the quizzes, the final and the HW will be averaged.

The grading scale is: 50 = 1.0, 65 = 2.0, 80 = 3.0, and 95+ = 4.0

Text: *Elementary Differential Equations*, (Eighth Edition), by Boyce and DiPrima.

No.	Sections	Topic	Page	Assigned Problems	Practice Problems
I	7.1	Linear Systems	360	22ab	2
	7.2	Matrices	372	10, 22	12, 23
	7.3	Eigvals, Eigvectors	383	1, 15	2, 16, 17
	7.4	Basic Thepy	389	-	5
	7.5	Homog Lin Systems	398	15	16
II	7.5	Homog Lin Systems	398	1, 10, 17	5, 7, 18
	-	Complex Numbers	I and II	-	1, 2, 5, 6, 8, 10
	7.6	Complex Eigenvalues	410	1, 3, 9	7, 11ab, 12ab
III	7.7	Fund Matrices	420	1	2
	7.8	Repeated Eigenvalues	428	1	2
	7.9	Nonhomog Systens	439	1, 4, 8	2, 3, 7
IV	8.1	Euler (Tangent Line)	449	1a	
	8.6	Euler (Tangent Line)	480	5a	
	9.1	Phase Plane	492	1ab, 2ab, 7ab	3ab, 4ab, 5ab, 6ab
	9.3	Almost Lin Systems	511	1, 5	2,3,4, 6,8
V	9.4	Competing Species	525	2bcdef	6bcdef
	9.5	Predator-Prey	534	2abcd, 3abcd	4abcd
VI	10.1	2-point BV Problems	575	3	1, 2
	10.2	Fourier Series	585	9, 13, 14	6, 7, 8, 10, 15, 20ab
VII	10.4	Even, Odd Fcts	600	7, 18, 21	1 - 6, 10, 20, 24, 35, 36
	10.5	Separation of Vars	610	7, 8, 10	1, 2, 4, 5, 9, 11
	10.6	Heat Conduction	620	1, 2, 3	6, 12ab
VIII	10.3	Convergence	592	1, 5, 6	7, 9
	10.7	Wave Equation	632	1a, 5a	3a, 4a
IX	10.8	Laplace's Equation	645	1a	3a
	10.3	Parseval's Equality	592	17	
		Additional Problem for IX	-	1	