

# Tentative Course Schedule

## Math 2280-007 (Summer 2002)

	Day	Month	Date	Description
1	M	May	20	What are DEs?
2	T	May	21	Existence/Uniqueness/Pathologies/Exp. Growth
3	W	May	22	Exp Growth/Decay cont'd, Logistic Eqn, Direction fields
4	F	May	24	Direction fields, Solving the Logistic eqn
	M	May	27	<b>Memorial Day</b>
5	T	May	28	1st order DE, integrating factor
6	W	May	29	Substitution, Exact DEs, Applications
7	F	May	31	More applicaitons of 1st order DEs
8	M	June	3	Linear DEs w/ constant coeff's. Complementary soln (char. eqn)
9	T	June	4	Char. eqn cont'd. (repeated roots, complex roots)
10	W	June	5	Linear dependence and Wronskians
11	F	June	7	Particular soln: undertermined coeffs, variation of parameters I
12	M	June	10	Particular soln: undertermined coeffs, variation of parameters II
13	T	June	11	Applications of Linear DEs
14	W	June	12	More applications of Linear DEs
15	F	June	14	<b>First Mid-term Test (on 1st order DEs)</b>
16	M	June	17	Systems of ODEs. Motivation/applications. Method of Elimination
17	T	June	18	Eigenvalue/vector methods for linear systems with constant coeff's
18	W	June	19	Eigenvalue/vector methods for linear systems with constant coeff's
19	F	June	21	Matrix Exponentials and 1st Order Linear Systems
20	M	June	24	Matrix Exponentials and 1st Order Linear Systems
21	T	June	25	Nonhomogeneous systems of 1st linear systems
22	W	June	26	Nonlinear systems, phase portraits of 2D systems
23	F	June	28	Linearization near critical points of 2D systems
24	M	July	1	Laplace Transforms: definition and properties I
25	T	July	2	Laplace transform methods for DEs: turning them algebraic
26	W	July	3	Inverse Laplace Transforms: the idea
27	F	July	5	Inverse Laplace Transforms: translation and partial fractions
28	M	July	8	Laplace Transforms: further properties forward transform
29	T	July	9	Periodic and piecewise continuous forcing term
30	W	July	10	Impulses and delta functions
31	F	July	12	<b>Second Mid-term Test (on Systems of ODEs)</b>
32	M	July	15	Power Series Methods
33	T	July	16	Taylor Series Methods
34	W	July	17	Method of Frobenius
35	F	July	19	Method of Frobenius
36	M	July	22	Method of Frobenius
37	T	July	23	Partial differential equations: Heat eqn, separation of variables
	W	July	24	<b>Pioneer Day</b>
38	F	July	26	
39	M	July	29	
40	T	July	30	
41	W	July	31	
42	F	August	2	
43	M	August	5	
44	T	August	6	
45	W	August	7	Review. Classes end.