	5: Differential Equations Syllabus
Aug. 27	4.1 nth order linear equations
29	4.1–2 nth order linear equations
Sep. 1	4.2 Homogeneous equations with constant coefficients
3	4.3 Undetermined coefficients
5	8.1 Euler method
8	8.2 Errors
10	8.4 Runge-Kutta
12	6.1 Definition of Laplace transform
15	6.2 Solution of initial value problems
17	6.2–3 Solution of initial value problems
19	6.3–4 Step functions
	Computer Assignment 1
22	Review
23	Exam I
24	6.4 Discontinuous forcing functions
26	6.5 Impulse functions
29	6.6 Convolution integral
Oct. 1	7.1 Intro to systems of 1st order equations
3	7.2 Matrices
6	7.3 Linear systems/independence
8	7.3 Eigenvalues/vectors
10	7.4 Basic Theory of 1st order systems
13	7.5 Homogeneous systems, constant coefficients
15	7.5 Homogeneous systems, constant coefficients
17	7.6 Complex eigenvalues
	Computer Assignment 2
18 - 26	Fall Break
27	Review
28	Exam II
29	7.7 Repeated eigenvalues
31	7.8 Fundamental matrices
Nov. 3	7.9 Nonhomogeneous linear systems (variation of parameters)
5	9.1–2 Autonomous systems
7	9.1–2 Phase plane: linear systems
10	9.3 Almost linear systems
12	9.3 Almost linear systems
14	9.3 Pendulum
17	9.4 Competing Species
19	9.5 Predator-Prey
21	10.1 Separation of variables, heat conduction
	Computer Assignment 3
24	Review
25	Exam III
26	10.1 Separation of variables, heat conduction
28	Thanksgiving
Dec. 1	10.2–4 Fourier series (summary)
3	10.5 Heat equation: non-homogeneous boundary conditions
5	10.6 Wave equation
8	10.6 Wave equation
	10.6 Wave equation Review Final Exam Friday, 1:45–3:45

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