DAY	SECTION	DUE	TOPIC
M 8.28	1.1		Course introduction; vocabulary related to ODEs
W 8.30	1.2		What makes a differential equation "linear"
F 9.1	1.2	1-20	More on linearity
M 9.4			*No class - Labor Day*
W 9.6	1.3-1.4		Exponential growth and decay
F 9.8	1.4	21-31	Slope fields for first-order ODEs
M 9.11	1.5-1.6		Euler's method; existence and uniqueness
W 9.13	1.6-1.7		Picard's method; intro to autonomous equations
F 9.15	1.7	32-39	Classification of equilibria
M 9.18	2.1		First-order homogeneous linear equations
W 9.20	2.2		Integrating factors
F 9.22	2.3	40-43, 46-50	Undetermined coefficients
M 9.25			Review of first-order linear equations
W 9.27	2.4		Separation of variables
F 9.29	2.5	62-72	Exact equations
M 10.2	2.6		Compartmental models
W 10.4	2.6		Heating and cooling models; RL and RC circuits
F 10.6		73-86	Review
M 10.9			**EXAM 1** (covers Chapters 1 and 2)
W 10.11	3.1-3.2		Introduction to systems of ODEs
F 10.13	3.3-3.4	87-98	Existence and uniqueness for systems; matrix operations
M 10.16	3.4-3.5		Inverses and determinants
W 10.18	3.6-3.7		Characterization of linear systems
F 10.20	3.7	99-110	Theoretical solution of first-order linear systems
M 10.23	3.8		Autonomous systems; analysis of phase planes
W 10.25	3.9		Matrix exponentials
F 10.27	3.9	111-123	The meaning of eigenvalues and eigenvectors
M 10.30	3.9-3.10		Introduction to complex numbers
W 11.1	3.10-3.11		Solving systems with complex eigenvalues
F 11.2	3.11	124-132	More on systems with complex eigenvalues
M 11.6	3.12-3.13		Repeated eigenvalues
W 11.8	3.14		Non-homogeneous systems
F 11.10	3.15	133-139	Classification of equilibria
M 11.13	3.16		The trace-determinant plane
W 11.15	3.17		Interconnected tanks; SIR models
F 11.17			Review
M 11.20		140-153	**EXAM 2** (covers Chapter 3)
W 11.22			*No class - Thanksgiving break*
F 11.24			*No class - Thanksgiving break*
M 11.27	4.1		Higher-order linear equations; reduction of order
W 11.29	4.2		Constant-coefficient higher-order equations
F 12.1	4.4		Mass-spring systems
M 12.4	4.4	154-164	Pendulums and electrical circuits
W 12.6			Review
F 12.8		165-171	Review
T 12.13			**FINAL EXAM** 10-11:40 AM in SCI 136