## Math 225, Spring 2004, Tentative Schedule:

Date Section/Topic

W 1/28/04 First Day Handout;
§1.1 - Background
F 1/30/04 §1.2 - Solutions and Initial Value Problems
M 2/2/04 $\S 1.3$ - Direction Fields
W 2/4/04 §Project D - Phase Line
F 2/6/04 §1.4 - Approximation Method of Euler
M 2/9/04 $\S 2.2$ - Separable Equations
W 2/11/04 §2.3-Linear Equations
F 2/13/04 Review for Exam 1
M 2/16/04 $\S 3.2$ - Compartmental Analysis
W 2/18/04 EXAM 1
F 2/20/04 §3.2 - Compartmental Analysis
M 2/23/04 §3.6-Improved Euler's Method
W 2/25/04 §3.7 - Higher-Order Numerical Methods: Taylor and Runge-Kutta

F 2/27/04 §4.1 - Introduction: the Mass-Spring Oscillator
M 3/1/04 §4.2 - Homogeneous Linear Equations: The General Solution
W 3/3/04 §4.2 - Homogeneous Linear Equations: The General Solution
F 3/5/04 §4.2 - Homogeneous Linear Equations: The General Solution
M 3/8/04 §4.3 - Auxiliary Equations with Complex Roots

W 3/10/04 §4.4 - Nonhomogeneous Equations: Method of Undetermined Coefficients

F 3/12/04 $\S 4.5$ - Superposition and Undetermined Coefficients
M 3/15/04 $\S 4.6$ - Variation of Parameters
W 3/17/04 Review for Exam 2
F 3/19/04 EXAM 2
M 3/22/04 SPRING BREAK
W 3/24/04 SPRING BREAK
F 3/26/04 SPRING BREAK
M 3/29/04 §5.2 - Elimination Method for Systems with Consistent Coefficients

W 3/31/04 $\S 5.4$ - Introduction to the Phase Plane
F 4/2/04 $\S 5.5$ - Coupled Mass-Spring Systems
M 4/5/04 §7.2 - Definition of Laplace Transform
W 4/7/04 $\S 7.2$ - Definition of Laplace Transform
F 4/9/04 $\quad 7.3$ - Properties of the Laplace Transform
M 4/12/04 STUDENT PRESENTATIONS
W 4/14/04 STUDENT PRESENTATIONS
F 4/16/04 STUDENT PRESENTATIONS
M 4/19/04 §7.4 - Inverse Laplace Transform
W 4/21/04 §7.4 - Inverse Laplace Transform
F 4/23/04 §7.5 - Solving Initial Value Problems

Date Section/Topic

M 4/26/04
W 4/28/04 §7.6 - Transforms of Discontinuous and Periodic Functions and Review for Exam 3

F 4/30/04 EXAM 3
M 5/3/04 $\S 9.5$ - Homogeneous Linear Systems with Constant Coefficients

W 5/5/04 Linear Systems in the Plane
F 5/7/04 Connections Between Eigenvalues and Guess and Test Method
M 5/10/04 Review for Final Exam
M 5/17/04 FINAL EXAM

