Math 441, Spring 2004, Tentative Schedule:

Date	Section/Topic
W 1/28/04	First Day Handout; §1.1 – Basic Concepts and Taylor's Theorem
M 2/2/04	§1.2 – Orders of Convergence
W 2/4/04	§2.1 – Floating-Point Numbers and Roundoff Errors
M 2/9/04	§2.2 – Absolute and Relative Errors: Loss of Significance
W 2/11/04	§2.3 – Stable and Unstable Computations: Conditioning
M 2/16/04	§3.1 – Bisection Method
W 2/18/04	§3.2 – Newton's Method
M 2/23/04	§3.4 – Fixed Points and Functional Iteration
W 2/25/04	§3.6 – Homotopy and Continuation Methods
M 3/1/04	§4.2 – LU and Cholesky Factorizations
W 3/3/04	§4.8 – Analysis of Roundoff Error in the Gaussian Algorithm
M 3/8/04	§6.1 – Polynomial Interpolation
W 3/10/04	§6.2 – Divided Differences
M 3/15/04	**Midterm Exam**
W 3/17/04	§6.8 – Best Approximation: Least-Squares Theory
M 3/22/04	SPRING BREAK
W 3/24/04	SPRING BREAK

Date	Section/Topic
M 3/29/04	§6.13 – Fast Fourier Transform
W 3/31/04	§6.13 – Fast Fourier Transform
M 4/5/04	§7.1 –Numerical Differentiation and Richardson Extrapolation
W 4/7/04	§7.2 – Numerical Integration Based on Interpolation
M 4/12/04	§7.3 – Gaussian Quadrature
W 4/14/04	§7.5 – Adaptive Quadrature
M 4/19/04	§8.1 – Existence and Uniqueness of Solutions
W 4/21/04	§8.2 – Taylor-Series Methods
M 4/26/04	§8.3 – Runge-Kutta Methods
W 4/28/04	§8.4 – Multistep Methods
M 5/3/04	§8.5 – Local and Global Errors: Stability
W 5/5/04	§8.6 – Systems and Higher-Order Ordinary Differential Equations
M 5/10/04	§Review for Final Exam
M 5/17/04	**FINAL EXAM**