SYLLABUS FOR **MATH 2200**
Text: Edwards and Penney,
Calculus, Early Transcendental Functions,
Seventh Edition (2007)
(Custom Edition for UGA)
Effective Summer, 2007

Outline of course

This syllabus is based on a MWF schedule. TR classes should cover 3 days' worth in 2 days.

I. Prelude to calculus (2 1/3–2 1/2 weeks)

2.1 Tangent Lines and Slope Predictors
2.2 The Limit Concept (2 days)
2.3 More About Limits (2 days)
2.4 The Concept of Continuity (2 days)

II. The derivative: Rules of differentiation (3 weeks)

3.1 The Derivative and Rates of Change (3 days)

——EXAM 1——

3.2 Basic Differentiation Rules (2 days)
3.3 The Chain Rule (2 days)
3.4 Derivatives of Algebraic Functions (1 day)

III. The derivative: Applications and differentiation of transcendental functions (3 1/2–3 2/3 weeks)

3.5 Maxima and Minima of Functions on Closed Intervals
3.6 Applied Optimization Problems (3 days)
3.7 Derivatives of Trigonometric Functions (2 days)

——EXAM 2——

3.8 Exponential and Logarithmic Functions
3.9 Implicit Differentiation and Related Rates (3 days)

IV. Additional Applications of the Derivative: Mean Value Theorem and First Derivative Test (2 weeks)

4.2 Increments, Differentials, and Linear Approximation
4.3 Increasing and Decreasing Functions and the Mean Value Theorem (2 days)
4.4 The First Derivative Test and Applications (3 days)

——EXAM 3——

V. Additional Applications of the Derivative: Curve Sketching (1 2/3–2 weeks)

4.5 Simple Curve Sketching
4.6 Higher Derivatives and Concavity (2 days)
4.7 Curve Sketching and Asymptotes

VI. Antiderivatives (2 weeks)

5.2 Antiderivatives and Initial Value Problems (2 days)
8.3 Separable Equations and Applications (3 days)

——EXAM 4——