Math 409.501l  
**Advanced Calculus I**  
**Course Information**

**Course Description**
From the catalog: axioms of the real number system; points set theory of $\mathbb{R}^1$; compactness, completeness, and connectedness; continuity and uniform continuity; sequences, series; theory of Riemann integration. This term the course will cover the one-dimensional theory of differential and integral calculus. A list of topics can be found in the table of Contents for Chapters 1–4 in the text.

**Text and Prerequisites**
The text is *Fundamental Ideas of Analysis* by Michael Reed, John Wiley & Sons, Inc. 1998. Prerequisites for the course are Math 220 and Math 221, or equivalent, or consent of the instructor.

**Instructor and Class Information**
Jon Pitts  
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Class meets TR 8:00–9:15 in ENPH 212.  
**Revised** office hours are M 8:15–9:15, R 9:30–10:30 and by appointment.  
Students with disabilities can get assistance from the Office of Services for Students with Disabilities (845-1637).

**Basis for Grading**
Course grades will be awarded as follows: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (59% or less). Semester scores will be determined on the following basis:

- Classwork score (20%) (including both homework and class participation). Problem sets will be regularly assigned and collected. You may form groups of at most three persons and turn in joint copy.

- Two major examinations (25% each), scheduled for October 10 and November 14.

- Comprehensive final examination (30%), scheduled for 1–3pm, December 11.

Make-ups are governed by university regulations.
Math 409.5011  
Advanced Calculus I  
Examinations and Assignments

Schedule of Major Benchmarks

First Examination  
October 10, 2000  
Second Examination  
November 14, 2000  
Final Examination  
1–3 p.m., December 11, 2000

Assignments

Write your proofs carefully. In each proofs, please use only axioms, facts proven in the text, facts proven in the text, or facts you have proved previously.

Due 9/5: §1.1: #1, 3, 6, 7, 8
Due 9/12: §1.2: #1, 3, 4, 10
§1.3: #1, 5, 8