Math 275, Topics in Calculus I  
Lecture 1, Fall Semester 2006-07

Basic Information

Instructor: Professor Alexander Nagel  
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Office Hours: Mondays, 10:00 - 10:50 AM  
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and by appointment

Teaching Assistant: Jesse Holzer  
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Office Hours: To be announced

Text:  
Calculus, Volume I by Tom M. Apostol  
Second Edition, John Wiley & Sons

Lecture:  
Monday, Wednesday, Friday from 11:00 – 11:50 AM in B139 Van Vleck Hall

TA Sections:  
Dis 301  
Tuesday & Thursday from 8:50 – 9:40 AM in B329 Van Vleck Hall  
Dis 302  
Tuesday & Thursday from 11:00 – 11:50 AM in B333 Van Vleck Hall

Exams:  
There will be three exams during the semester, given in the evening, and a final exam. The tentative dates for the evening exams are:  

Exam #1  Thursday, October 12, 5:30 - 7:00 PM in B139 Van Vleck  
Early exam 2:30 – 4:00 PM in B321 Van Vleck  
Exam #2  Thursday, November 9, 5:30 - 7:00 PM in B139 Van Vleck  
Early exam 2:30 – 4:00 PM in B321 Van Vleck  
Exam #3  Thursday, December 7, 5:30 - 7:00 PM in B139 Van Vleck  
Early exam 2:30 – 4:00 PM in B321 Van Vleck

Let me know as soon as possible if you have a conflict with one of these exams. The date and time for the final exam is:  

Final Exam  Tuesday, December 19, 12:25 – 2:25 PM.

The final exam schedule is set by the University. We cannot reschedule or give make-ups for the final exam to accommodate early departures from Madison for winter break. Be sure to see me early in the semester if you have a legitimate conflict.
Assignments:

Homework problems will be assigned in lecture and collected in discussion section. They will be posted on this web page. We expect all assignments to be written neatly, and handed in on time.

Grading:

Your final grade will be based on your effort on the three exams given during the semester, the final exam, and the homework. The course will focus on ideas rather than computational techniques. If you work hard at the course material and the assigned problems, you should do well in the course.

Asking questions:

The pace of the course will depend in part on how well the material is understood. Thus if there is something that you do not understand, it is important to ask questions. In particular, I encourage questions during lecture. I know that this takes courage, but if you do, it will help me and all the other students in the class. If you do not understand something, it is most probably the case that several other students are having the same difficulty. There is no such thing as a foolish question, with the exception of

“Will this material be on the exam?”

If you have a question, please try to be brave and do yourself, the rest of the class, and me a great favor by asking it. If you do not understand something, it is almost certain that there are others who do not understand it either. If you cannot bring yourself to ask a question during lecture, then be sure to ask during the recitation section or in office hours.

Lecture schedule:

Given the above comments, is difficult to predict the exact schedule of lectures. I have prepared a very tentative schedule which can be found on this web page. However, it is subject to change.

Additional comments:

The purpose of Math 275 is to teach the fundamental ideas of the Differential and Integral Calculus. The course will cover material from the Introduction and chapters 1 – 6 and 9 of the text. While we will do some of the same kind of routine exercises that are given as homework in Math 221, the real focus of the course is on understanding mathematical ideas, and on using them with precision. Thus in addition to learning techniques of calculation, you will also be expected to learn and to reproduce mathematical definitions and mathematical proofs. This is often very difficult at first, but it does become easier with practice, and does not require that you be a mathematical genius. Learning mathematics is hard work, but also lots of fun. If you work hard at the material, you will receive a good grade.

Many of the students in the class have been exposed to calculus before, but this is not a prerequisite. My objective is to teach the material so that it is accessible to students with no prior experience in the subject, but also to make the course interesting for those who have seen some of the material before. If you find the course too easy, please let me know so that I can suggest further reading and additional interesting problems.