

Math 2433 - Section 10833. CALCULUS III.      Fall Semester 2006.

Time and Place: MWF 12-1pm in 102 SW.

Instructor: Dr. David Blecher.

Office Hours: MW 1-2:30 in 622 PGH (or call 743-3451 for appointment).

Email: dblecher@math.uh.edu

Website: <http://www.math.uh.edu/~dblecher> Text: Salas and Hille's, *Calculus - One and Several Variables*, Wiley. Online.

Prerequisites: Math 1432.

TAs: Damon Johnson, Yuanchen Liu

See TA for his mathlab hours.

Final exam: 11-2 Monday December 11. There will be no make-up final.

Last day to drop the course or withdraw: November 1.

Holidays November 22-25. Last day of class December 2.

In this course we study vector calculus—calculus in two and three dimensions. Calculus is basically a collection of recipes for solving a certain stock of problems. In Calculus III we also need to get used to thinking and sketching in 3-D, and learning the language, notation, and geometry of 3 dimensions, but this will become easier with time and practice. I find Calculus III much more cohesive and enjoyable than Calculus II.

Please download the course syllabus, calendar, and homework assignments from the web (starting at my webpage <http://www.math.uh.edu/~dblecher>). The tests and exam will be based on the notes given in class, and on the homework, but will also require you to think on your own (that is, some questions on the tests will not be quite like the homeworks. They will be easy, but do require you to have absorbed concepts and ideas that were in the lectures/notes, and to use some basic deductive reasoning). Therefore it is not sufficient merely to read the text—it is essential to have good class notes. The syllabus is quite long. We need to move fast through the first few chapters so that we get enough time to spend on the more difficult material at the end. It is important to keep up to date. You will need to be quite good at algebra and trigonometry, and integration and differentiation techniques. So review these well.

You should attempt all homework problems. They are there to help you learn and INTERNALIZE the material. Remember that Math is always easy when you look back on it, AFTER you have spent the time wrestling with the new concepts and doing plenty of exercises. No pain, no gain. So, a recipe for success is: 1) Do as many problems as possible, 2) Clear up confusions (ask for help if you are lost - we want to help you get found!), 3) Learn from your mistakes - for example, check carefully through your graded work, 4) Give sufficient time to study (particularly for tests).

You are encouraged to work with others, form study groups, and so on. However you should not simply copy homework. There will be mock exams and review sessions given before each test and exam. Please bring unused blue books and student ID, but no calculators, to tests and exams. If you know that you will have to miss a test, let me know by email as soon as you know. I will need an excuse (doctors note, etc) for my records.

Please bring comments or complaints to my attention as soon as possible. Don't wait until the end of the semester to bring up a matter which we could deal with and solve early on.

Incompletes: only given to students with at least a C average who are unable to take the Final

for unforeseeable, unpreventable, documented circumstances. Course grade is approximately based on a total score of 600 points consisting of quizzes (100 points), three semester tests (100 points each), and a final exam (200 points). The instructor may change this at his discretion if doing so will benefit the class as a whole. No WebCT for Calculus III.

Recitation class: you will be given at least 20 minutes to ask any questions you may have. The TA is not there to lecture the lecture material again. On occasion I may ask the TA to present some material there is no time for in class. There will be a weekly quiz of NO MORE than 10 minutes in duration, they should pretty much be standard questions from the homework set—so that anyone who has been doing the homework should have already solved these problems and be able to answer them easily. In this way, it will be clear if you are doing the homeworks. If the class is not doing a good job with homeworks, we will start to collect homework (this will then be graded, not for mathematical accuracy, but to check that you are doing nearly all the homeworks). You will be quizzed on sections that have been covered the previous week. Thus if Friday's lecture ends in the middle of 12.5, the quiz the next week will be on up to and including 12.4. There are no make-up quizzes, but the lowest few of these grades will be dropped.

There are two free tutoring services through Mathlab and in the Social Work building. Also there are videos available covering all the prerequisite classes. You have already paid for these through your fees so use them. They're also a good 'hang-out' place.