

Prerequisites: Grade of C or better in MAT 137.

This might be the hardest class you have ever taken. Good visualization skills will be helpful so play a lot of 3D tetris. You need to be able to find derivatives and integrals without notes or calculators. You must be familiar with vectors, basic vector arithmetic, dot product, cross product, equations of lines and planes, equation of the sphere.

Description: Calculus III (4). Multidimensional calculus; partial derivatives, gradients, optimization, multiple integrals, parametric curves and surfaces, vector calculus, line integrals, flux integral, and vector fields.

Textbook: James Stewart: Calculus concepts and Contexts (second edition)

Grading:

A : 90.0%, B : 80.0%, C : 70.0%, D : 60.0%

- Weights: 20% homework, quizzes; 55% tests; 25% final
- Tests: There will be 4 in-class tests. The exact dates will be announced at least a week before the tests in class and on the course web page. Use of calculators and cheat sheets will not be allowed on the tests. Class attendance is very important. You are responsible for material covered in class whether or not it is in the text. It is important to take notes, and review them after class.
- Comprehensive final exam:
- Quiz: A quiz may be given at any time without announcement, especially on days with low attendance. There may be group and individual quizzes.
- Homework: Homework will be assigned regularly on WebWork. Check the course web page for assignments and due dates. Homework is the foundation of your learning. You cannot expect to solve the assigned problems easily. Some problems require a great deal of effort and time. Even if you are unable to solve a problem, the time spent on trying is not wasted. The only way to build mathematical skills is to think about problems. The more you think the more you know. Do not spend your time on memorization. Try to understand everything as deeply as possible. The emphasis in this class, like in any mathematics class, is on understanding. Your questions are always appreciated.

No late homework is accepted. It is recommended to create study groups and discuss the assigned problems but you need to solve your homework set on your own.

Please collect and save all graded and returned material. Check your scores regularly on the grade-sheet posted on the web. Grades are not negotiable based on personal reasons like scholarships job offers etc. Cutoff levels are firm.

Make up tests will be given only in case of verified medical or other emergency which must be documented. You must make a reasonable effort to notify me as soon as you can, before the missed test is given. The best way to contact me is by email.

All the information on this syllabus are subject to change and any class announcements regarding the syllabus are considered official amendments to it. This syllabus and other information is available on the course web page.