

SYLLABUS

Multivariate Calculus, Fall, 2002

Instructor: James A. Davis Office hours: MW 10:30–11:30; TR 1-2
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I. COURSE DESCRIPTION:

Math 235 is a continuation of the courses in calculus, with an extension to functions with more than one variable. The fundamental concepts of approximation and convergence play a key role in all of the topics. As often as possible, we will make analogies between what you learned in single variable calculus and what we are studying in the multivariable case. By the end of the course, the student will be expected to be fluent in taking “derivatives” of multivariable functions; in integrating over more than one variable; in analyzing multivariate functions for extremum; and in working with vectors rather than numbers in calculus settings.

We will use the book Vector Calculus by Marsden and Tromba. We will cover most of the book. We are assuming that you are familiar with the material included in Math 211 and Math 212, including all derivative formulas, basic integration facts, the Fundamental Theorem of Calculus, techniques of integration, applications of derivatives and integrals, improper integrals, and sequences and series. If you have any questions about whether this is the correct course for you, please don't hesitate to ask me.

II. <u>GRADING:</u>	<u>Three hour exams</u> (100 pts each)	300 pts
	Exam dates: 9/23 10/25 11/25	
	<u>Homework grade</u>	100 pts
	You will turn in weekly homework assignments	
	<u>Final Exam</u> (Saturday December 14, 2-5)	200 pts
	TOTAL	600 pts

(NOTE: You can get 10 bonus points for attending a lecture on Monday November 11 sponsored by the math and computer science department)

III. ATTENDANCE: Attendance is expected. You are responsible for making up any work you miss if you are not in class. I reserve the right to punish serious abuse of privileges (I will warn you before I do so).

IV. ACADEMIC HONESTY: All work on tests must be your own. Calculators are permitted on test days, but you are never permitted to share them (make sure that you bring one on test days!).

On homeworks, I want to encourage you to speak with fellow students about the assignments. However, I don't want people to directly copy other's work and pass it off as your own. Perhaps the best way to handle this is to always do the write-up by yourself without looking over anyone's shoulder. I will warn you if I see any serious abuse of this policy.