

# Mathematics 53 - Multivariable Calculus

Professor M. Zworski

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**Office Hours:** noon-2 PM on Wednesdays in Evans 801.

**Class meetings:** The main lectures are TT 2-3:30 PM in Wheeler 150. There are in addition 20 discussion sections meeting on MWF.

**Course Webpage:** The handouts and assignments on [bCourses](#).

**Text:** J. Stewart, UC Berkeley Custom version of *Calculus (Early Transcendentals)* for Math 53

## Overview

Material	Number of Lectures
Introduction, parametric equations	3
Vectors and Planes	2
Partial Derivatives	6
Multiple Integrals	7
Vector Calculus	8
Review (RRR Week)	2
<b>Total</b>	28

## Tests

Exam	Date	Material covered
Midterm # 1	September 26, in class	Lectures 1-8
Midterm # 2	November 7, in class	Lectures 9-20
Final Exam	December 12, 8–11 AM	All Lectures with 21-26 emphasized

## Grades

Work	Percentage of final grade
Homework and Quizzes	20 %
Midterm #1	20 %
Midterm #2	20 %
Final Exam 20	40 %

Grades will be computed in the following way. You will be given a letter grade (+ or -, if appropriate) for each item of work above and we will later combine these grades as indicated in the table to obtain the final grade for the course. The TAs will lastly identify borderline cases, for which we will carefully look at the numerical grades on the various tests to determine the grade.

If you do not take Midterm #1, Midterm # 2 will count for 40 % of your grade. If you take Midterm #1 but not Midterm #2, the Final Exam will count for 60 % of your grade. If you take neither Midterm #1 nor Midterm #2, you will fail the course (or at best get an incomplete grade). You **cannot** pass the course without taking the Final Exam. Consequently, please mark the dates in your calendars. This policy is **not** to make one of the midterms optional but to allow for unforeseen circumstances.

**Homework and Quizzes:** There will be a weekly quizz given each Friday in sections. There will be **no** make-up quizzes, but we will drop the two lowest quiz scores in computing your grade. Homework from the main lecture on Tuesday is due on Friday at midnight, and homework from the main lectures on Thursday is due on Wednesday at midnight. The submission should be done online. Since the Tuesday's material is reviewed in the lecture on Thursday, etc. and there is one section meeting before homework is due, you will be able to absorb the material. The homework will be graded "pass/fail".