

Math H53: Honors Multivariable Calculus

Spring 2020

TuTh 2–3:30, 70 Evans

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office hours: Tu 3:30–5:30

Prerequisites: Math 1A, 1B

Textbook: J. Stewart, *Calculus: Early Transcendentals*, UCB Custom Version for Math 53, or 8th Edition, Cengage Learning.

This book will be supplemented by occasional handouts, on topics such as partial differential equations and differential forms, which will be posted on the class webpage.

In this course we will study functions in several variables and operations on them, such as integration and partial differentiation, as well as their myriad applications. Since this is an honors course, the material will be presented in a more conceptual and rigorous way than in the regular Math 53. For instance, we will give proofs of some of the key statements, and in the last part will discuss differential forms. This course will therefore require a higher motivation and dedication on the part of the students.

In addition to lectures, students will have 3 hours of weekly section meetings taught by the GSI, Alexander Sherman, to discuss and elaborate on the material presented in the lectures. The GSI will also hold office hours on Mondays, 12-2 pm, at 1057 Evans.

Homework: Homework assignments will be posted on the class webpage Thursday evening. Solutions will be posted the following Monday.

Quizzes: There will be a quiz in the section every Wednesday based on the material and the HW of the preceding week. Two worst quiz scores of every student will be dropped. **There will be no make-up quizzes.**

Exams: There will be one in-class **midterm exam on Thursday, Feb 27, 2:10–3:30 pm.**

The final exam will be on Monday, May 11, 11:30-2:30pm (Exam group 2).

There will be NO MAKE-UP EXAMS. It is your responsibility to make sure that you have no exam scheduling conflicts!

Homework will not be collected or graded. However, problems for the quizzes and exams will follow closely the HW assignments (and some might be taken directly from the HW), so it is in your interest to do homework on a regular basis.

Grades will be computed as follows: 20% quizzes, 30% midterm exam and 50% final exam.

If you miss the midterm exam due to a *documented* illness or emergency, the formula for the grade will be adjusted as follows: 30% quizzes, 70% final exam.

If you miss the final exam, you will automatically fail the course.

According to the official University policy, to receive Incomplete grade, a student must have completed the majority of the required work in the course **and have a passing grade** (C or better), but for reasons beyond the student's control cannot complete the entire course (for which the student must provide documentation).