

MATH 2220 MULTIVARIABLE CALCULUS SPRING 2017 AT CORNELL

Spring 2017

Instructor: Bo Yang **Email:** boyang@math.cornell.edu

Lecture 001: MWF 9:05am- 9:55pm in Malott Hall 253 .

Instructor: Robert Connelly **Email:** connelly@math.cornell.edu

Lectures 002: MWF 11:15am- 12:05pm in Malott Hall 228.

TA (DIS 201, 202, and 205): : Anwesh Ray, **Email:** ar2222@cornell.edu

TA (DIS 203 and 204): : Ian Lizarraga, **Email:** iml32@cornell.edu

Discussion Sections:

DIS 201: 1:25 PM - 2:15 PM Malott Hall 203

DIS 202: 2:30 PM - 3:20 PM Malott Hall 203

DIS 203: 2:30 PM - 3:20 PM Malott Hall 224

DIS 204: 3:35 PM - 4:25 PM Malott Hall 224

DIS 205: 3:35 PM - 4:25 PM Malott Hall 203

Course Website:

1. The main website: <http://www.math.cornell.edu/~boyang/math2220%20s2017%20yang.html>
2. [Math 2220 Blackboard site](#)

Textbooks: Lax and Terrell, Multivariable Calculus with Applications, Book, 2016. This book is available in print (as a packet) form through the Cornell Store.

A Remark: The textbook we are using is the multivariable calculus sequel to Peter Lax and Maria Terrell's single variable calculus text "Calculus with Applications, second edition, Springer 2014". That text is free and available at [publisher's website](#). Note that you will need a Cornell IP address to download it. It is not a necessary prerequisite, but contains the proofs of some key theorems about numbers and about real valued functions of a single variable.

Blackboard site of Math 2220: The site is used to maintain HW, Quizzes, exam grades, and post supplementary course materials.

General information on Math 2220: Math 2220 is a multivariable calculus course intended for students who may be considering majoring in mathematics or a major that requires a strong background in mathematics. The prerequisites are Math 1110 and 1120 or their equivalent (for example a 4 or 5 on the BC advanced placement calculus exam) and a course in linear algebra (Math 2210 for example). In Chapter 1 we briefly review some of the key concepts about vectors and linear maps. Math 2220 includes all of the topics discussed in Math 1920 and Math 2130 but 2220 is designed to prepare students for more advanced courses in mathematics. We do this by providing you with opportunities to read and write proofs, and to become more familiar with how mathematics is expressed and communicated. **Forbidden Overlap:** Due to an overlap in content, students will receive credit for only one course in the following group: MATH 1920, 2130, 2220, 2240.

Important Dates:

First day of lecture: Wed 01/25
First HW due Wed 02/01 in discussion
First Quiz Wed 02/08 in discussion
Last day to add classes: Wed 02/08
Prelim 1: at Thu 02/23, 7:30-9 PM in RCK 203 and 230
Feb break: No class on 02/20
Last day to drop classes: 03/22
Prelim 2: at Tue 03/28, 7:30-9 PM in RCK 203 and 230
Spring break: Sat 04/01 to Sun 04/09
Final Exam: Some time between 05/15-05/23.

Course calendar, HW assignments, and some occasional quizzes: HW assignments and due dates will be updated regularly on [the course calendar](#). Usually they are due **at the beginning of the weekly Wed discussion section**. Late homework will not be accepted, however we will **drop two of your lowest HW grades** when determining your final grade. There should be 4 quizzes in total and they will take place in discussion sections. The first quiz will be during the 02/10 discussion section (the 3rd Wed). We will **drop your lowest Quiz grade** when determining your final grade.

Writing ups of the HW: Normally HW is assigned from textbooks, if we assign additional problems, they will be posted on [on Math 2220 main website](#). Writing HW is very important for you to practicing clear mathematical reasoning. You may discuss with others about your solutions but the work must be your own. Your homework is a document that our TAs have to read. **They are not obliged to read unreasonably messy or unstapled papers! So please be clear and neat with your homework.** Though not required, we encourage you to practice writing up HW solutions in Latex and turn in printed out papers. Regarding the theTeX source. Here is a helpful resource for learning LaTeX <http://www.artofproblemsolving.com/wiki/index.php/LaTeX> and a book [Math into LATEX](#).

Final grades: Your final grades will be based on Homework and Quizzes (20%), Prelim 1 (20%), Prelim 2 (20%), and Final (40%). Active participation in class may be taken into account when determining your final grade.

Missed Exams or Exam Conflicts: If you have a serious emergency (a proof from a doctor needed), or are unable to make exams due to athletic purposes in the university level (a proof needed), contact your instructor immediately. and you will be excused from the prelim or given a make-up prelim. We will assess your mastery of the material tested on that prelim either based on how well you do on the corresponding part of the final exam or the actual grades from make up prelims. Students who miss the final examination in cases of illness or serious emergency will be granted an INC if they have passing level work on their prelims and homework. Make ups for the final can be taken with a final of the same course during the following semester.

Academic Integrity: Cornell's code of academic integrity applies to this and all other courses. In particular, academic misconduct of any kind may result in a grade penalty or the assignment of a failing grade. You may collaborate with other students on homework, indeed you are encouraged to do so. However, for maximum benefit, you should try hard to do all the problems yourself before consulting others. What you turn in should be your own account expressed in your own words. Verbatim copying someone else's homework and presenting it as your own will be treated as a violation of Cornell's Academic Integrity Code, as will copying solutions that you might find on the internet or elsewhere.