MATH 3200: Introduction to Higher Mathematics, Fall 2018

Lecture: Boyd 221, MWF 9:05-9:55
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Class Web Page: https://faculty.franklin.uga.edu/brian/content/math-3200-fall-2018

Office Hours: M 2:25–3:25 pm, W & F 10:00–11:00 am (tentative)

Textbooks: Required: *Mathematical Proofs: A Transition to Advanced Mathematics*, 4th ed., by Chartrand, Polimeni, and Zhang.
Optional: *How to Think Like a Mathematician: A Companion to Undergraduate Mathematics*, by Kevin Houston.

Course Objectives: This course is designed to provide a transition from introductory mathematics courses (e.g., calculus), which are generally computational, to upper-level mathematics courses (e.g., abstract algebra, real analysis, number theory), which are proof-based. The main objective of this course is to teach students to think and write in rigorous mathematical style.

You will likely find this course to be very different from the mathematics courses you have had before. The focus will be on studying the proofs of theorems, rather than applying theorems to solve problems. You will be learning to communicate your mathematical understanding clearly and correctly to others, both orally and in writing. Because you will be looking at mathematics at a much deeper level than you have in the past, you will likely find this course to be challenging.

Grading: Course grades will be weighted according to the following scale:

Homework	25%
Midterms (2)	35%
Final exam (comprehensive)	40%

Exams: The in-class midterm tests and the final exam are tentatively scheduled as follows:

Test 1:	Wed. Sep. 26
Test 2:	Wed. Nov. 7
Final Exam:	Mon. Dec. 10, 8–11am

I do not give make-up exams. Please inform me as soon as possible if you have a conflict with one of the test dates.

Homework: Written homework will be assigned and collected weekly, on Wednesdays. A complete and up-to-date list of all homework assignments will be posted on the course web page. Homework will be due at the beginning of class. Late homework will normally not be accepted.

Homework is the most important part of this course. Much of your learning will take place as you work on problems. You are encouraged to work with classmates while solving homework problems. Learning to explain clearly your own reasoning, and learning to understand the reasoning of others are important goals of this course. However, the work you turn in must represent your own personal understanding of the material. *In particular, you must write up your assignments by yourself.*

Attendance and class participation: You are expected to attend class every day, read the textbook, and do homework regularly. The official University attendance policy states: "Students who incur an excessive number of absences may be withdrawn from the course at the discretion of the instructor." In the Mathematics Department, excessive means four or more unexcused absences. You are encouraged to attend office hours; of course, I expect that you will have thought about the questions you would like to ask before you come.

Academic Honesty: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in"A Culture of Honesty" found at:

https://honesty.uga.edu/Academic-Honesty-Policy/.

Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Copyright: All of the course tests and exams are copyright by the instructor, even if the © symbol does not appear on them. You may not upload or post copies of these materials to the web without my explicit written permission.

Electronics: As a courtesy to me and to your classmates, please turn off and put away all cell phones, tablets, laptops, etc. during class time. An exception can be granted if you plan to take notes on a laptop or tablet; please see me if that is the case.

Changes: The course syllabus provides a general plan for the course; deviations may be necessary. Any modifications will be prominently announced on the course website.