

MATH 215-34754: INTRODUCTION TO ADVANCED MATHEMATICS

Fall 2022

Instructor:	Tom Benhamou	Time:	MWF 09:00 – 09:50
Email:	tomb@uic.edu	Place:	Addams Hall 310

Course web page:

homepages.math.uic.edu/~tomb/

Office Hours: Wednesday 11:00 – 13:00. Office hours will be held in person compatibly with [COVID-19 safety measures](#). My office is 616 in the SEO building. Besides office hours, the best way to contact me this semester is by email.

Description: This course is an introduction to theoretical mathematics. The main goal is introducing the students to the language of modern mathematics and to some important mathematical concepts. Students are expected to learn how to prove basic properties about numbers, sets, and functions.

Prerequisites: Grade of C or better in MATH 181 and approval of the department.

Textbook: No textbook is required.

Tentative Course Outline:

█ logic truth █ arithmetic █ induction █ prime numbers and divisibility █
sets █ Relations █ functions █ enumerative combinatorics

Grading: The grade will be based on the following components: 20% homework + 20% midterm + 20% midterm + 40% Final exam (cumulative).

Academic Integrity: Students are encouraged to work together on homework problems, but the final write-up must be yours and should reflect your own understanding of the problem. You must follow this rule:

- write down your solutions with your own words at least two hours after working with others.

Plagiarism or cheating will not be tolerated. Being caught cheating may result in failing the class.

Important Dates:

Instruction begins	.....	Aug 22, M
Labor day	.....	Sep 5, M
Midterm 1	.....	Sep 26, M
Midterm 2	.....	Nov 7, M
Thanksgiving holiday	.....	November 24–25, Th–F
Instruction ends	.....	December 2, F
Final exam	.....	December 9, 10:30-12:30 (44946)
Final exam	.....	December 6, 10:30-12:30 (34754)

Student accommodations:

UIC is committed to full inclusion and participation of people with disabilities in all aspects of university life. Students who face or anticipate disability-related barriers while at UIC should connect with the

Disability Resource Center (DRC) at drc.uic.edu, drc@uic.edu, or at (312) 413-2183 to create a plan for reasonable accommodations. In order to receive accommodations, students must disclose disability to the DRC, complete an interactive registration process with the DRC, and provide their course instructor with a Letter of Accommodation (LOA). Course instructors in receipt of an LOA will work with the student and the DRC to implement approved accommodations.

Class Policy:

- Participation is essential and strongly recommended.
- No late submission will be accepted.