
Emory University
MATH 328
Number Theory
Fall 2023

Instructor: Andrew J. Kobin

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Class location: Psychology 225

Class meeting time: TTh 1PM - 2:15PM

Office Hours: W 2 - 4PM in MSC E406

The following are some course guidelines. They should serve as an outline of my expectations for you as a student, and of what you can expect from me as an instructor.

Prerequisites: MATH 250 or MATH 276

Course Description: This course introduces the basic concepts of algebraic and analytic number theory. Topics include: the fundamental theorem of arithmetic, congruence relations, the distribution of prime numbers, quadratic reciprocity, Diophantine equations and generating functions.

Textbook: *A Friendly Introduction to Number Theory*, 4th ed., by Joseph H. Silverman.

Assessments

Homework: You will be asked to turn in written solutions to homework problems approximately every week. This will be my primary tool for evaluating your ability to write a complete solution to a mathematical problem.

Discussion Forum: It's likely that you will have questions as you review your notes and complete homework assignments. Those that occur to you will likely also occur to other students. You should raise these questions at the course Discussion Forum, accessed through Canvas. Your activity on the forum can lead to up to fifteen extra credit points towards your Homework grade.

Reflections: Each week, you will identify what course material needs to be revisited through weekly submissions of course-related reflections. Responses are to be submitted through Canvas after class each Thursday and before 5PM on Friday. For each thoughtful reflection statement you submit, you will earn two extra credit points towards your Homework grade.

Midterms Exams: There will be two midterm exams given during class, on **September 28** and **November 9**. You will be given the full class period (75 minutes) to take each midterm. Any conflicts with the midterm dates must be reported to me at least one week before the midterm date. No makeup exams will be given.

Final Project: At the end of the semester, you will be asked to write a report on a special topic related to what you learned in the course. I will make topic suggestions throughout the semester, and there are more example topics in the textbook. In lieu of a written report, you may instead choose to give a 10 minute presentation on the topic, using slides, the chalkboard or another format that I approve.

Course Grade: The course grade will be determined as follows:

Homework:	30 points
Midterm 1:	25 points
Midterm 2:	25 points
Final Project:	<u>20 points</u>
	100 points possible

The number of points you earn will be mapped to a letter grade as follows:

A*: [98, 100]	A: [93, 98)	A-: [90, 93)	B+: [87, 90)	B: [83, 87)	B-: [80, 83)
C+: [77, 80)	C: [73, 77)	C-: [70, 73)	D+: [67, 70)	D: [63, 67)	D-: [60, 63)

In borderline cases, your letter grade may be higher—the one assigned to the interval immediately above the one your point total lies in. **Although Emory does not award A+ grades, you will have my eternal admiration.*

Policies

Attendance and classroom etiquette: My philosophy is that a college student is primarily responsible for their own academic success. Accordingly, regular attendance and participation will be expected but not recorded. That being said, consistent absence will be a detriment to your ability to keep up with the coursework. Please come to class on time, minimize distractions, and stay for the entire class period. Because of the special circumstances surrounding the COVID-19 situation, it is especially important that you focus on your learning experience as well as that of your classmates.

COVID-19 policies: In accordance with the University's COVID-19 policies, masks are optional in indoor learning spaces. Any changes to the University's policies during the semester will be followed as they are implemented.

Learning needs: As an Emory instructor, I am committed to creating a learning environment that meets the needs of the University's diverse student body. If you anticipate or experience any barriers to learning in this course, please feel welcome to discuss your concerns with me. If you have a disability, or think you may have a disability, you may also contact the Department of Accessibility Services (DAS), to request an official accommodation. You can find more information about DAS, including how to apply online, through their website at <https://accessibility.emory.edu/>. If you have any questions about eligibility for DAS accommodation, please don't hesitate to ask me!

Honor code: The Honor Code will be strictly observed in this class. Please remember to pledge each quiz and exam.

Important Dates:

Classes start	Wednesday, August 23rd
Last day to add/drop/swap a course	Wednesday, September 6th
Midterm 1	Thursday, September 28th
Last day to withdraw from a course	Wednesday, October 11th
Midterm 2	Thursday, November 9th
Last day of classes	Tuesday, December 5th