

Math 3341

Number Theory

Fall 2025
Dr. Ryan C. Daileida

Course URL: `ramanujan.math.trinity.edu/rdaileida/numbers`

Office Hours and Contact Information: Consult the course web page or *Canvas*.

Textbook: Lectures will loosely follow Burton's *Elementary Number Theory*, 7e.

Course Content: Divisibility theory, modular arithmetic, and elementary Diophantine equations, with applications to cryptography. Additional topics may include quadratic forms, continued fractions or elliptic curves.

Assignments: Exercises and reading will be assigned daily and posted to *Canvas* shortly after class. However, assigned exercises will only be turned in once a week (typically Wednesday). Due dates for all assignments will be clearly indicated. I reserve the right to penalize or refuse to accept late assignments.

All assignments must be typeset in \LaTeX and submitted electronically through *Gradescope*. Handwritten work will not be accepted.

Collaboration on assignments is permitted and encouraged, and you are free to consult any individual or resource that you find helpful. However, plagiarism is unacceptable. Attempting to pass off the work of others (regardless of the source) as your own will be considered a violation of the honor code.

Exams: There will be two (evening) midterm exams during the semester, as well as a cumulative final exam. Times for the midterm exams will be announced at least one week in advance.

Exam 1	September 29
Exam 2	November 3
Final Exam	December 17, 12–3pm

Use of Previous Exams: Students are permitted to obtain and study exams given in previous semesters. However, previous exams should not be used to judge the content or difficulty of the exams that will be given in this course.

Attendance: Attendance is highly encouraged but is not mandatory. Roll will not be taken, but excessive absences should be explained to me.

Grades: Your course grade will be based upon the scores on the homework, midterm exams, and the final exam as follows:

Homework	30 %
Midterm Exams	20 % (each)
Final Exam	30 %

Use of ChatGPT or Other Generative AI: All assignments submitted for this course should reflect your own thinking and work. Any use of generative AI, such as but not limited to Chat GPT, will be considered “unauthorized assistance” and a violation of academic integrity and of the Trinity University Academic Integrity (Honor Code) discussed below.

Additional Information

Academic Support Resources: Trinity faculty hold students to the highest academic standards, but we also know that the very best students seek out help when necessary. To learn more about the resources that are in place to support your academic success, visit Trinity's Academic Support Homepage [here](#).

Special Needs: If you have a documented disability and will need accommodations in this class, please speak with me privately early in the semester so I may be prepared to meet your needs. If you have not already registered with Student Accessibility Services, contact the office at 999-7411 or SAS@trinity.edu. You must be registered with SAS before I can provide accommodations.

Academic Integrity: All students are covered by the Trinity University Honor Code which prohibits dishonesty in academic work. Under the Honor Code, a faculty member will (or a student may) report an alleged violation to the Academic Honor Council. It is the task of the Council to investigate, adjudicate, and assign a punishment within certain guidelines if a violation has been verified. Students are required to pledge all written work that is submitted for a grade: "On my honor, I have neither given nor received any unauthorized assistance on this work" and their signature. The pledge may be abbreviated "pledged" with a signature.

The specifics of the Honor Code, its underlying philosophy, and the norms for sanctioning can all be found on the Academic Honor Council website [here](#).

Title IX/Sexual Misconduct Reporting: As a Responsible Employee who is committed to creating an environment where every member of our community can thrive, I want to let you know that I am a Mandatory Reporter. What that means is that I am required to report any instances of sexual misconduct, including sexual harassment, non-consensual sexual intercourse, non-consensual sexual contact, sexual exploitation, intimate partner violence, stalking, and related retaliation that I am aware of to the Title IX Coordinator. So, if you share information with me about any incidents that implicate the Sexual Misconduct or Anti-Harassment Policies, I am required to report all information to the Title IX Coordinator to make sure you have information about support resources and complaint resolution options. My report does not initiate the complaint process, and you are in control over how you choose to engage with our Title IX Coordinator. If you or someone you know has experienced sexual misconduct, including sexual harassment, I encourage you to share this information directly with the Title IX Coordinator or one of the individuals who has been designated as a confidential resource on campus. The reporting form is available [here](#).