

Mathematics 104A Syllabus: Winter 2026

1 About the instructor

1. Name: Aaron Pollack
2. Office: APM 7349
3. email: apollack@ucsd.edu
4. Office hours: Please see course website
5. All days and times refer to US Pacific time

2 Basic course information

- Textbook: *A classical introduction to modern number theory*, Second edition, by Kenneth Ireland and Michael Rosen. I will also provide written notes or alternate sources for material not in the text.
- Official class meeting time: MWF, 10:00am-10:50am (Applied Physics and Mathematics B412).
 - First day of lecture: Monday 5 January 2026
 - Last day of lecture: Friday 13 March 2026
- Holidays (no lecture):
 - Monday 19 January 2026 (MLK Day)
 - Monday 16 February (President's Day)
- Discussion section
 1. Tuesday 6:00-6:50pm COA 121
- Scheduled Final Exam:
 1. **Friday 20 March 2026 8:00am-11:00am in APM B412**
- Midterm Exam:
 1. **Monday 9 February, during class, in APM B412**
- Homework: Will be due by 1:00 pm (US Pacific Time) on Gradescope on the Thursdays of weeks 2-5 and 7-10. There will not be a homework due in Week 6 (the week of the midterm.)

3 Grading

Your grade percentage will be computed via the following weights:

- Attendance: 5%. There are 27 regular lecture days in the quarter. If you attend 25 of these, you will receive the full 5%, and proportionally thereafter. I.e., if you attend $x \leq 25$ of the regular lectures, you will receive $5\% \times \frac{x}{25}$. So long as course attendance is at least 75% of the enrolled students in a given lecture, I will not take attendance and everyone will receive credit for attending. If attendance drops below 75% of enrolled students, I reserve the right to take attendance in class for the rest of the quarter (e.g. by iClicker or some other method).
- Homework: 35%, with the lowest score automatically dropped. So, each counted homework will be worth 5% of your grade.
- Midterm: 15%
- Final Exam: 45%

Important note: The midterm and exam questions will be almost exactly a subset of the questions from homework and discussion section. This is to encourage you to put significant effort into the homework (instead of, for example, using generative AI) to make sure you learn the material.

The following final percentages will guarantee you the corresponding grade (although the actual grade cutoffs may be lower):

A+	A	A-	B+	B	B-	C+	C	C-
97	93	90	87	83	80	77	73	70

Late homework will not be accepted. However, as mentioned, your lowest homework score will automatically be dropped. **Plan on doing all the homework** as this is the only way to learn the material.

The above policies are guidelines. The instructor reserves the right to alter these in any and all unusual circumstances (e.g., pandemic, severe weather)

3.1 Exam policy

The midterm and final exam will be closed book, closed note, with no calculators or other aids allowed.

3.2 Homework policy

The only way to learn the concepts and techniques, and to do well in this course is to work through all of the homework problems. This will ensure that you do not get a false sense of security about if you truly understand the material. However, working with your peers is acceptable. **You must write up the solutions to the problems yourself.** Copying solutions from others or a solutions manual will be deemed academic misconduct. If you worked with peers to solve a problem, you should acknowledge on your homework who you worked with.

Use of generative AI: You are welcome to type the homework questions into generative AI applications, such as ChatGPT. When you're stuck on a problem, the output might provide a useful

guide to how to get started. Note however that these outputs may be incorrect; you should not copy from them or rely on them in any serious way. You are certain to learn the material much better if you work through the homework problems without outside assistance.

- Homework must be written clearly. All work must be shown.

4 Administrative policies

- University-excused absences: If you will miss one of the exams due to religious observation or for representing the university in varsity athletics, you must **email** me at the above email address **no later** than two weeks before the absence, but preferably as soon as possible.
- Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter (paper or electronic) issued by the Office for Students with Disabilities. Students are required to discuss accommodation arrangements with instructors and OSD liaisons in the department in advance of any exams or assignments.
- Exam Versions: There may be different versions of exams given. All versions of any exam will cover the same topics and will be calibrated to the same level of difficulty. It is standard Math Department practice to utilize different versions of exams, both within each lecture's exam, and between lectures whose exams are at different times
- Violations of UCSD's academic integrity policies (cheating, plagiarism, etc.) will be handled by the instructor using UCSD administrative measures. In addition, the instructor reserves the right to assign a 0 score to any homework or exam affected by a violation.