Math 375: Representation Theory

Spring 2025

Instructor:	David Zureick-Brown ("DZB")	**Office:**	502 Seeley Mudd
Email:	dzureickbrown@amherst.edu		
		Note!	No office hours May 2
Time:	10-11:15am	**Hours:**	Mon 1:45-3:15 (in person)
Place:	014 Seeley Mudd		Wed 1:30-3:50 (in person)

Textbook: "A Course in the Theory of Groups" by Robinson

Course website: https://dmzb.github.io/teaching/2025Spring375/

Math Fellow(s): none.

Prerequisites: Math 350; knowledge of group theory.

Getting help

Office Hours: Please stop by to see me (in Seeley Mudd 502) during my scheduled office hours; you can stop by unannounced during these times! If you have scheduling conflicts with my office hours then you are also welcome to make appointments to see me (outside of my regularly scheduled office hours) at a time which is mutually convenient. To schedule an appointment simply send me an email! (In which case, please include your availability in your message.)

Peer tutoring: If you need regular one-on-one help from a tutor, we can (probably) help to set up a (free) peer tutor. To do so, please send me an email.

Homework is **due** <u>Tuesday, 5 minutes before classtime</u>, via <u>Gradescope</u>. The assignment should be submitted as a <u>single file</u>. See the homework page for the Gradescope code and instructions for submitting homework.

Please be kind to our dear grader(s) and take care to make the assignment legible.

See the document here

https://dmzb.github.io/teaching/2025Spring375/assignments-S25-375.pdf

for a list of all assigned work and a weekly breakdown of the course content.

Grading: Your grade will consist of the following. Your lowest weekly assignment will be dropped.

Weekly Homework Assignments	45%
1 midterm and a final exam	55% =
Best exam	25%+
Second best exam	20%+

Grade scale: A lower bound on your final grade is given by the following table.

A = 93-100	B+ = 87-90	C+ = 77-80	D+ = 67-70	F = 0-63
A- = 90-93	B = 83-87	C = 73-77	D = 63-67	
	B- = 80-83	C- = 70-73		

Typical rubric: Proofs will typically be graded on the following rubric (out of 10 points).

10	Flawless
9	Basically correct, but not literally 100% correct
7	Mostly correct, but with at least one error
5	Numerous errors
2	Proof contains a fundamental misunderstanding
0	No part of the proof was correct

Assignment and exam dates:

Weekly Assignments	Generally due Tuesdays, 5 minutes before classtime, via Gradescope.
Midterm	Thursday, March 6 (oral exam)
Final Exam	Friday, May 9 (oral exam)

See the study guides on the homework page for more information about the oral exams.

If you have any conflict with these test dates, PLEASE let me know at least two weeks in advance.

Rewrites will be allowed (and encouraged) on weekly graded assignments; and students can recover up to half of the missed points. Rewrites are to be submitted through Gradescope. You may rewrite a problem multiple times, and you may resubmit a rewrite as late as you like (including right before the final exam).

When you submit a rewrite, please make it clear which problems you are rewriting.

Late submissions. Any assignment submitted after the due date will be treated as a "rewrite" (you can receive up to half credit for the assignment).

Honor Code: Remember that copying another student's (or AI's) work is a violation of the Honor Code and will be treated as such. Please review Amherst College's Honor Code, available here.

You are free to consult any sources (animate or inanimate) while doing your homework; working in groups is encouraged! On the other hand, you are expected to make an honest attempt to do every problem on your own before consulting other sources. Learning and retaining knowledge is a back and forth process of trying problems on your own and asking for help or for a small hint. Please do not copy a solution that you do not understand or you are not sure is correct onto your assignments.

Plagiarism: a good rule of thumb to avoid plagiarism is the following – when doing the final write up of a problem, do not have any textbooks, web pages, or classmate's write up open in front of you. If you get stuck when writing up an assignment, go back and look again; just make sure that you organize the mathematics in your head before writing a proof rather than copying a solution from some source. **This is a generous homework policy. Please do not abuse it.**

Inclusivity: I put great value in welcoming each and every student into the classroom, regardless of their sex, race, nationality, gender identity, socioeconomic status, ability (intellectual or physical), religious beliefs, or sexual orientation. Each student brings with them to the classroom a unique set of experiences and I expect everyone to contribute to providing an inclusive environment. If, at any time, you experience a situation within this course that you feel challenges your sense of inclusion or accurate assessment of achievement, then please notify me as soon as possible.

Accessibility and accomodations. Amherst College complies with the regulations of the Americans with Disabilities Act of 1990 and offers accommodations to students with disabilities. Please do not hesitate to ask for accommodations or to contact me about accommodations. (Please also do so as soon as possible.) For more information, please go here.

Attendance policy. Attendance is not part of your grade; but to do well in the class, the expectation is that you attend regularly. If you are sick, I would prefer that you stay home from class and get notes from a classmate.