

Syllabus for Math 5331, Abstract Algebra I, Fall 2025

Class information

Class time: MWF 9:05–10:00AM

Room: Ratliff Building North 4032

Instructor information

Name: Prof. Joseph Vandehey

E-mail: jvandehey@uttyler.edu (**NOT** jvandehey@patriots.uttyler.edu)

Book: *Abstract Algebra*, third edition

by David S. Dummit and Richard M. Foote

Office Hours: 1:30-4:30 PM Thursdays

We will use Canvas in this course. Homework assignments, grades, study guides, and even this syllabus will all be posted to Canvas.

1. COURSE DESCRIPTION

Basic structure, substructure, morphisms, and quotient structures in the categories of groups, rings, and modules.

2. GRADING

Homework will contribute 50% of your overall class grade. Exams will contribute 50% of your overall class grade. Letter grades will be determined by standard cut-offs (90% and up for A, 80% to 90% for B, and so on). Any curve will only be to your benefit. **HOWEVER**, in order to obtain a C or better letter grade, you must obtain at least a C on both the homework and exam portions of your grade.

2.1. Homework. One homework assignment will be assigned every Friday and will be due the following Friday. To account for a hectic semester, the lowest homework grade will be dropped.

2.2. Exams. There will be two midterms as well as a final, all equally weighted. Midterms will take place October 3rd (Week 6) and November 7th (Week 11). Midterms will take place during our usual class period for the day and last the whole class period. Generally, exams will not be cumulative except in those ways that they must because we are building on knowledge from earlier in the semester. The final exam will take place on Monday, December 8th from 8AM to 10AM.

Books, notes, calculators, phones, and any similar objects are not allowed for the exams.

3. A WORD ON PLAGIARISM AND CHEATING

Since the grading scheme of this course is different from the typical math class with so much focus on writing, we need to make it clear what is and is not cheating for the purposes of this course.

The following are all perfectly acceptable and even encouraged:

- Working together with other students in class to figure out how to solve a problem.
 - Coming to office hours and asking me for help.
 - Copying typesetting techniques for LaTeX off the internet, if you choose to TeX your homework.
- For example, suppose you want to write something like the following

$$\sum_{\substack{n>1 \\ n \text{ not square}}} \frac{1}{n}$$

but cannot figure out how to make multiple lines appear beneath the sigma notation. It is perfectly acceptable for you to Google how to do this, copy someone else's LaTeX code for this, and paste it into your TeX file.

The following are NOT allowed and will be considered cheating:

- Copying an answer from another student in class. (In other words, it is fine to work with your friends in class to figure out how to solve a problem, but the solution you write up needs to be your own.)
- Copying an answer from an answer key or website.

- Asking a service or website to solve a problem for you.

The penalty for cheating may range from a reduction in score on a homework assignment to failing the course, depending on the severity of the infraction.

4. MAKE-UP POLICY

For homework, if you have a preplanned absence (such as for a sporting event), please turn in your homework on the due date. If you have an unplanned absence, please let me know and the reason why, and you may be granted an extension.

For exams, if you have a preplanned absence, illness, or other major life event that causes you to miss an exam, please let me know and provide documentation, and we will set up an alternate test time.

5. ADDITIONAL COMMENTS

- (1) Exceptions to the above rules will be made in the case of extreme circumstances (death in the family, severe illness, etc.).
- (2) Cheating is strictly prohibited and carries severe consequences, up to and including expulsion from the university.
- (3) Calculators, phones, tablets, laptops, or any other computing or communication devices are not permitted on quizzes or tests. Use of them will be considered cheating.
- (4) If you believe I have graded an exam in error, come see me at the end of the class in which I handed it back. Leaving class with the exam means you accept the grade you have been given.
- (5) September 8 is this semester's Census Date, the deadline for all registrations, schedule changes, and section changes.
- (6) I frown upon the use of erasers on tests. They make me sad.
If you think your work is wrong, cross it out. Do not erase! I can't give partial credit for work that has been erased and I can no longer read.
- (7) Important campus-wide policies that you should be aware of can be found on Canvas under Modules, then UT Tyler Syllabus Module, then University Policies and Information.

6. SPECIAL COMMENTS ABOUT AI

UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

In this class, to best support your learning, you must complete all graded assignments without the aid of AI. Refrain from using AI tools to generate any course content (e.g., text, video, audio, images, code, etc.) for any classroom assignment.

This syllabus is a general guideline for the course. Deviations may be necessary as the semester progresses.