

Syllabus for MATH 357 Undergraduate Abstract Algebra II, Spring 2021
(changes due to February winter storm in red below)

Instructor: Dr. Chelsea Walton

Email: notlaw@rice.edu.

Format: Fully Online + Pre-recorded (asynchronous) lectures. Questions about lecture material will be addressed and groupwork on certain homework problems will be conducted during the regularly scheduled MWF class time. Assessment will consist of weekly homework sets, two midterms, one final exam, and participation in discussion sessions.

Discussion Days, Times, and Location: MWF 8:30AM - 9:25AM to discuss lecture material and for groupwork on certain homework problems. See 'Welcome Email' for meeting link.

Office Hours: Mondays 6:00PM - 7:00PM + an additional hour if needed.
See 'Welcome Email' for link.

Prerequisite courses: MATH 356

Course website: <https://math.rice.edu/~notlaw/teaching.html#current>

Textbook: Algebra: Abstract and Concrete, Edition 2.6 by Frederick M. Goodman. It is available at no cost here (with an optional charity donation):

<http://homepage.math.uiowa.edu/~goodman/algebrabook.dir/download.htm>

Supplementary text: Abstract Algebra, Third Edition, by D. Dummit and R. Foote. See 'Welcome Email' for course material.

Course Objectives: Successful students will gain experience with concepts and methods of abstract algebra at the undergraduate level, especially on the theory of modules/ representations, and fields and their connections to group theory. Successful students will also develop their skills in the written communication of mathematical ideas. See the Teaching Schedule on the course website for more details on the algebraic structures covered in the course.

Lectures: Pre-recorded lectures and lecture notes will be available at least 24 hours before the regularly scheduled MWF discussion time. It is expected that students go through the lecture material (video+notes) ****before**** the discussion meetings.

Assessment, % of Course Grade:

Homework, 40%; Discussion, ~~13%~~ 12%; Midterm Exams, 20%; Final Exam, ~~27%~~ 28%.

See the Teaching Schedule on the course website for assignments and due dates. Students will be responsible for keeping track of their own grades. See more details below.

Homework: There will be 12 homework sets, due at noon (**by 12:00pm *sharp***) on the due date. Homework solutions should be submitted through gradescope. Each homework set

will consist of ‘practice problems’ (discussed during the MWF discussion sessions), along with ‘advanced problems’.

The lowest ~~two~~ ~~four~~ homework scores will be dropped, so that each homework set is worth ~~4%~~ ~~5%~~ of the course grade. There will also be a bonus homework set due at the end of the semester– the score from this set will be added to the student’s total homework score as extra credit.

**No late homework submissions are allowed
(not even by 1 minute so it is best to submit your homework early).**

Each homework score will be out of 10 points, including credit for composition. The use of full sentences, proper grammar, and overall neatness counts towards ‘good composition’. See <https://math.rice.edu/~notlaw/teaching.html> for proof writing tips if needed.

Handwritten and Latex-ed solution sets are both acceptable. Students are expected to write up their own solutions, and to acknowledge any references (to theorems, exercises, etc.) and collaborations with peers when pertinent. Solutions should be submitted via one scanned/ typed pdf (not several pdfs/ jpgs of individual pages). The Genius Scan app or Dropbox app is recommended for scanning with a smart phone.

Discussion period and Assessment: Student will be assessed on their participation during the regularly scheduled MWF discussion time, and **with the exception of the week of February 15th - 19th**, each week of participation is worth 1% of the course grade. Successful participation includes asking clarifying questions about the lecture material, and providing solutions or hints to the practice homework problems, once per week. Of course, participation more than once per week is welcomed and encouraged! Approximately half of class time will be dedicated to groupwork in Zoom breakout rooms.

Midterm Exams: The midterm exams will held during class time on ~~Friday, February 26th~~ ~~and on Friday, April 9th~~ **Friday, March 19th**. Please see the information on disability accommodations below if applicable. Further details will be provided closer to the exam date. The midterm grade counts for 20% of the course grade. **but only the top score of the two midterm exams will be counted.**

Final Exam: The date of the final exam is between Wednesday, May 5th and Wednesday, May 12th; the precise date to be announced later. It will be a 3 hour exam. The time of exam and further details will be provided closer to the exam date.

Academic calendar: See: <https://registrar.rice.edu/calendars/spring-semester-2021>.

Disability Accommodation: Any student who has a need for accommodation based on the impact of a disability should contact me privately to discuss the specific situation as soon as possible. Students should also contact Disability Resource Center (DRC) at adarice@rice.edu or 713-348-5841 to obtain a Letter of Accommodation to present to me and to learn about further resources: <https://drc.rice.edu/>.

Statement on Collegiality, Respect, and Sensitivity: The Department of Mathematics supports an inclusive learning environment where diversity and individual differences are understood, respected, and recognized as a source of strength. Racism, discrimination, harassment, and bullying will not be tolerated. We expect all participants in mathematics courses (students and faculty alike) to treat each other with courtesy and respect, and to adhere to the mathematics department standards of collegiality, respect, and sensitivity (link to department statement on collegiality, respect, and sensitivity goes here) as well as the Rice Student Code of Conduct. If you think you have experienced or witnessed unprofessional or antagonistic behavior, then the matter should be brought to the attention of the instructor and/or department chair. The Ombudsperson is also available as an intermediate, informal option, and contacting them will not necessarily trigger a formal inquiry.

Title IX Responsible Employee Notification Rice University cares about your wellbeing and safety. Rice encourages any student who has experienced an incident of harassment, pregnancy discrimination or gender discrimination or relationship, sexual, or other forms interpersonal violence to seek support through The SAFE Office. Students should be aware when seeking support on campus that most employees, including myself, as the instructor/TA, are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. For more information, please visit safe.rice.edu or email titleixsupport@rice.edu.