
Math 8510: Abstract Algebra I

FALL 2018

Martin E-004, MWF 10:10–11:00

Instructor	Matthew Macauley (macaule@clemsun.edu) OFFICE: Martin Hall O-325 PHONE: (864) 656-1838 (no voicemail!) OFFICE HOURS: MWF 9-10am WEBSITE: http://www.math.clemson.edu/~macaule/classes/f18_math8510/
Textbook	None required. Many useful resources are freely available online, such as <i>Abstract Algebra: The Basic Graduate Year</i> , by Robert B. Ash (Univ. Illinois). Though I will draw from a number of sources, the book that I will follow the closest is <i>Algebra</i> by Larry C. Grove, available new for \$19.95 on Amazon. I will also draw from <i>Algebra</i> by Thomas W. Hungerford.
Policies	<ul style="list-style-type: none">• Attendance on test days is mandatory. Class attendance at other times is not mandatory, but is strongly recommended.• If you get an A on the final exam, then you get an A in the course.• All drop/add procedures are your responsibility.• Absent Professor Policy: If the instructor has not arrived within 10 minutes of the scheduled class time, you may assume that class has been canceled.• All use of cell phones and laptops is prohibited during lecture. Tablets may be used for taking notes only.• I will NOT post homework solutions. However, I will gladly help you with any of the problems during office hours or whenever I'm around.
Learning Outcomes	This course, along with MATH 8520, is a standard year-long graduate-level course in abstract algebra class. It will cover groups, rings, fields and Galois theory, and modules. By the end of the semester, students should be able to: <ul style="list-style-type: none">• Earn a <i>Strong Pass</i> on the Abstract Algebra half of the Clemson Algebra graduate prelim.• Demonstrate a solid understanding of abstract algebra at the graduate level.• Formulate a number of abstract constructions using universal properties.• Understand, read, write, and critique rigorous mathematical proofs on abstract algebra.• Further improve and develop good mathematical writing skills. Important aspects of this are <i>accuracy</i>, <i>clarity</i>, and <i>conciseness</i>.
Grading	The final grade will be calculated as follows: HOMEWORK: 20% MIDTERM 1: 20% MIDTERM 2: 20% FINAL EXAM: 40%

Homework Homework assignments will accumulate from lecture to lecture and will be due several times a week. I will post the assignments on my website, as I like to make all materials freely available to everybody (Warning: Websites such as *Course Hero* are a SCAM!). Students can collaborate on their homework problems, but they *must* write up and submit their homeworks separately and cite all collaborators and outside sources (websites included). Late homeworks will **not** be accepted. You are encouraged to typeset your homework assignments (L^AT_EX preferred but not required). You should keep all the graded homeworks in case of missing grades due to missing name or typo errors.

Key Dates	Aug 22 (Wed)	Classes begin; late enrollment fee applies
	Aug 28 (Tue)	Last day to register or add a class
	Sep 4 (Tue)	Last day to drop a class or withdraw from the University without a W grade
	Oct 31 (Tue)	Last day to drop a class or withdraw from the University without final grades
	Nov 5-6 (M-Tu)	Fall break
	Nov 21-23 (W-Fr)	Thanksgiving break
	Dec 7 (Fri)	Last day of class
	Dec 11 (Tue)	Final Exam, 3:00–5:30pm.
	Dec 20 (Thu)	Graduation

The official statement on Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a *high seminary of learning*. Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

When in the opinion of a faculty member, there is evidence that a student has committed an act of academic dishonesty, the faculty member shall make a formal written charge of academic dishonesty including a description of the misconduct, to the Dean of the Graduate School. At the same time, the faculty member may, but is not required to, inform each involved student privately of the nature of the alleged charge.
