

Math 61051/71051  
Abstract Algebra I  
Fall 2007

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Hours: 11:00–11:50 AM Daily  
Text: Abstract Algebra, Third Edition, by Dummit and Foote

Material to be covered:	Chapter 0/Appendix	Preliminaries
	Chapter 1	Introduction to Groups
	Chapter 2	Subgroups
	Chapter 3	Quotient Groups and Homomorphisms
	Chapter 4	Group actions
	Chapter 5	Products, Abelian Groups
	Chapter 6	Nilpotent and Solvable Groups
	Chapter 7	Introduction to Rings (as time permits)

**Course Objectives:** The primary objective of this course is to learn about algebraic structures and techniques. The secondary objective, which in some ways is at least as important, is to learn to present mathematics both in written form and orally. This is vital for anyone pursuing a career in mathematics, especially at the graduate level. To this end, all work to be turned in must be in “polished” form. That is, you are expected to write in paragraphs, using clear, complete, grammatically correct sentences. (See also the handout on writing proofs.) Homework not in this form will be returned to be rewritten. Oral presentations will be done in the problem hour.

**Grading:** There will be 2 midterm exams worth 20% each and a final exam worth 40%. Written homework assignments and in-class presentations of problems will account for the remaining 20%. The grading scale will vary depending on the difficulty of the exams.

**Exams:** An exam will be given at approximately the conclusion of each of Chapters 3 and 6. These are very tentatively scheduled for October 8 and November 20. Exact dates will be announced in class. The final exam will be comprehensive. It is scheduled for Friday, December 14, at 10:15.

**Homework:** A set of homework problems will be assigned each week from the text, lectures, and/or handouts. These will usually be due on Thursday, and will be collected and graded. Homework must be turned in on time — that is, at the start of class on the due date. You can get help from the instructor or work together, but *each student must write up the solutions independently*.

**Problem Sessions:** This is a 4 hour course, and one class period of most weeks will be devoted to presentations of homework problems, either by students or the instructor.

**Attendance/Conduct:** Regular class attendance is expected. Class begins at 8:50 and all students are expected to arrive and be prepared to start class on time. Cell phones, pagers, etc., must be turned off during class.

Every effort will be made to end class on time at 9:40. However, it may occasionally be necessary to take a few extra minutes to complete a proof or idea at the end of class. On these occasions, the instructor will appreciate the courtesy of your attention until class is dismissed.

**Students with Disabilities:** University policy 3342-3-18 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments.

Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit [www.registrars.kent.edu/disability/default.htm](http://www.registrars.kent.edu/disability/default.htm) for more information on registration procedures).