MAT 534 — INTRODUCTION TO ABSTRACT ALGEBRA
FALL 2016

Instructor:	Professor Graham Leuschke
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Lecture:	TR 9:30–10:50, Carnegie 110
Office hours:	M 2:30–4:00, W 11:00–12:00, Th 3:30–5:00; by appt, and any time my door is open
Text:	Joseph Gallian, *Contemporary Abstract Algebra*, **8th ed.**
Text website:	www.d.umn.edu/~jgallian/

Prerequisites: MAT 531 or graduate standing in the mathematical sciences.

Course Description: Theory of groups, rings, and fields, including the integers and polynomial rings.

The objective of this course is to provide an introduction to modern abstract algebra, primarily groups and rings, and to the axiomatic treatment of mathematics. This course is proof-based and is primarily intended for mathematics majors.

We will cover most of chapters 1–11 (groups) and 12–15 (rings) from the textbook, with some additions and some omissions.

Homework and quizzes: Homework sets will be assigned weekly. They will not be collected, but *these homework assignments are crucial to your learning experience in the course.* There will be weekly in-class quizzes based on the homework problems. The problems will be a mixture of problem-solving and formal proofs.

You are always welcome, in fact encouraged, to ask questions about homework in class and in office hours.

Learning outcomes: In addition to learning the basic theory of groups and rings, the student should learn how to read, understand and write proofs and other abstract mathematical arguments based on axioms and rules of logic.

Grading: I will use the following scheme to compute your grade:

Quizzes:	35%
In-class midterm exams:	2 @ 20% each
Cumulative final exam:	25%

Hour exams: There will be two in-class midterm exams during the semester. Here are the approximate dates:

Exam 1: Thursday 14 October

Exam 2: Thursday 1 December

Any changes to this schedule will be announced in class and on BlackBoard.

There will be no makeups for the in-class midterm exams or the final exam. If you have a documented excused absence for one of the in-class midterm exams, your grade on the relevant portion of the final exam will be used.

Final exam: The final exam is scheduled for **Friday 16 December, 5:15–7:15pm**. Do not make plans to leave campus before this date, as the final will not be given at any other time.

The final exam will be cumulative.

Students with Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 303 of 804 University Avenue, or call 315-443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible co-ordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations.

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academicintegrity.syr.edu.

Religious observances policy: SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services -> Enrollment -> My Religious Observances) from the first day of class until the end of the second week of class.