MATH 4107 SYLLABUS

SPRING 2010

Course Number:	Math 4107 AU, AG
Course Name:	Introduction to Abstract Algebra I
Lecture Time:	MWF 12:05–12:55 p.m.
Lecture Room:	Skiles 243
Instructor:	Dr. Christopher Heil Office: Skiles 109 Office Phone: 404-894-9231 Email Address: `heil@math.gatech.edu`
Course Web Page:	`http://www.math.gatech.edu/~heil`
Office Hours:	MF 1-2 and by appointment
Contacting me:	I encourage you to contact me by email. I try to check email daily and to respond to questions quickly. Please don't be afraid to set up other appointment times if you are having trouble getting in touch with me.
Textbook:	I. N. Herstein, Abstract Algebra, Third Edition
Material:	Chapter 2: Groups Chapter 3: The Symmetric Group Chapter 4: Ring Theory Chapter 5: Fields
Prerequisites:	Math 2406 (Abstract Vector Spaces)

Prerequisites. This is a *proof-based* course on groups, rings, and fields. One of the main goals of the prerequisite course (MATH 2406) is to teach you proofs and proof-writing. If you haven't taken that course or an equivalent course where you learned to write proofs, you may find it quite difficult to jump into the abstract setting of this course. Unlike calculus, differential equations, etc., there are no *formulas*, only *concepts*, here, and the *proofs* of those concepts—the reasons *why* things are true.

Academic Dishonesty. All students are expected to comply with the Georgia Tech Honor Code. Any evidence of cheating or other violations of the Georgia Tech Honor Code will be submitted directly to the Dean of Students. The institute honor code is available at

`http://www.honor.gatech.edu`

Grading. We will have six homework assignments, two in-class exams, and a final exam.

6 Homeworks	25 points each
Exam 1	50 points
Exam 2	50 points
Final Exam	100 points
TOTAL	350 points

Letter grades will be based on your accumulated points at the end of the semester, according to 90%, 80%, 70%, 60% cutoffs (although I may adjust the cutoffs downward at the end of the semester, depending on class distribution):

315–350	A
280–314	B
245–279	C
210–244	D
0–209	F

At the end of the course, I'll evaluate the class distribution and decide if a curve is needed. I'll only curve *down* from the above cutoffs, not up.

Homework. Homeworks will consist of problems selected from the book or problems that I make up. Assignments will be posted on the course web site. A subset of the problems will be selected for grading.

Homeworks should be written on the front side of the page only, and must be stapled. LATE HOMEWORKS WILL NOT BE ACCEPTED.

You are allowed (and encouraged) to work together with other students on the homework, as long as you each INDEPENDENTLY WRITE UP YOUR OWN SOLUTIONS. You are also allowed (and encouraged) to ask me questions, although you should try to think about the problems before asking. I strongly encourage you to work extra problems from the book on your own.

Exams. The tentative dates for the exams are:

Exam 1	Friday, February 19 (in class)
Exam 2	Friday, March 19 (in class)
Final Exam	11:30 a.m.–2:20 p.m., Monday, May 3

The exams are closed-book and closed-notes, except that you will be allowed to bring one 8.5x11 sheet of notes (you can write on both sides) to each exam. The final is comprehensive.

Makeup exams are given only in extraordinary circumstances.