Math 443  
Advanced Algebraic Structures  
Fall 2010

Professor: Pete Goetz  
CRN: 46551

Office: BSS 358

Office Hours: Monday 3-4, Tuesday 9-9:50, Wednesday 10-10:50, Thursday 11-12, and by appointment.  
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Time and Place: We meet MWF from 11:00-11:50 in SCIA 460.


Pre-requisite: Math 343 or consent of the instructor.

Course Overview:
  Part 1: Applications of Ring Theory  
  Part 2: Advanced Group Theory  
  Part 3: Groups in Topology

Course Goals: The following three fundamental goals are what I will keep in mind as I teach the course, design assignments, and assess your work. Your final grade will depend on how well you achieve each of these goals.  
  (1) Obtain a basic understanding of some of the theory and techniques of abstract algebra.  
  (2) Gain ability in abstract reasoning, problem solving, and formulating conjectures.  
  (3) Be able to clearly communicate and express mathematical ideas.

Homework: Homework sets require both problem solving and presentation skills. It is of no use to solve a problem if you can’t clearly communicate your solution to someone else. A solution to a problem or the proof of a theorem should be a clear, concise, logical, written argument. I will be grading your homework sets on both presentation and mathematical correctness. Some of the homework problems could be difficult. I highly suggest starting the assignment as soon as possible. Be sure to come see me in office hours if you need extra guidance. Homework is due in class on the day listed on the homework assignment handout. I will not accept late homework unless in case of an emergency. I will drop your lowest homework score.
**Reading Quizzes:** On some days at the beginning of class we will have a short 5-minute reading quiz on the material in the textbook for that day’s lecture. Make sure to do the reading before class. Check the timeline handout for exact dates. I will drop your lowest quiz score.

**Exams:** We will have two midterm exams during the semester in addition to a cumulative final exam. The dates for these exams are given below. Mark your calendars and plan accordingly as **no makeup exams** will be given. Each exam will consist of four parts: definitions, theorem statements, true or false, and statements to prove.

- Midterm Exam 1: Friday, September 24
- Midterm Exam 2: Friday, November 12
- Final Exam: Wednesday, December 15, 10:20-12:10

**Grading Components:** Your course grade will be based on the following components:

- Reading Quizzes: 10%
- Homework Sets: 25%
- Midterm Exam 1: 20%
- Midterm Exam 2: 20%
- Final Exam: 25%

**Academic Integrity:** Please see [http://studentaffairs.humboldt.edu/judicial/academic_honesty.php](http://studentaffairs.humboldt.edu/judicial/academic_honesty.php) for HSU’s policy on academic honesty.

**Emergency Evacuation Procedures:** The evacuation plan for the classroom is posted on the orange signs. Also review [http://studentaffairs.humboldt.edu/emergencyops/campus_emergency_preparedness.php](http://studentaffairs.humboldt.edu/emergencyops/campus_emergency_preparedness.php) for information on campus Emergency Procedures. During an emergency, information can be found on campus conditions at: 826-INFO or [www.humboldt.edu/emergency](http://www.humboldt.edu/emergency).