

Mathematics and Computer Science 128A
Fall 1995

Instructor: Professor R. Alperin, Duncan 239, Office hours: 3:30-5:00MW or by appointment

Text: *Contemporary Abstract Algebra* by Joseph A. Gallian, Heath, 3rd Edition

Course: Abstract Algebra

The main goal of this class is to introduce the students to the main ideas of modern algebra: groups, rings and homomorphisms. Final grade is based on a 400 point total on tests and homework. Students are required to keep a notebook of homework exercises which will be collected before each exam.

Chapter 0: Integers and Equivalence Relations, August 28

Chapter 1: Introduction to Groups, August 30-September 6

Chapter 2: Groups, September 11-13

Chapter 3: Subgroups, September 18

Chapter 4: Cyclic Groups, September 20-25

Chapter 5: Permutation Groups, September 27-October 2

MIDTERM 1: October 4, 100 points

Chapter 6: Isomorphisms, October 9-11

Chapter 7: Direct Products, October 16

Chapter 8: Cosets and Lagrange's Theorem, October 18-23

Chapter 9: Normal Subgroups and Factor Groups, October 25-30

Chapter 10: Homomorphisms, November 1-6

MIDTERM 2: November 8, 100 points

Chapter 12: Introduction to Rings, November 13-15

Chapter 13: Integral Domains, November 20

Chapter 14: Ideals and Factor Rings, November 27-29

Chapter 15: Ring Homomorphisms, December 4-6

REVIEW, December 11

COMPREHENSIVE FINAL, 150 points, December 13, 19:45-22:00