

# Syllabus—Math 580

Winter 2006

**Professor:** Dr. Jim Brown

**Office:** 630 Math Tower

**Office Phone:** 688-8733

**Email:** jimlb@math.ohio-state.edu

**Office Hours:** M 3:30 - 4:30 pm, W 12:30 - 1:30 pm, Th 11:30 - 12:30 pm,  
and by appointment

**Course Website:** <http://www.math.ohio-state.edu/~jimlb/Math580.html>

**Lecture:** Lectures are at 9:30 am Monday, Weds, and Friday. I do not take attendance, but it is important for your understanding that you attend class regularly.

**Description:** The sequence 580-581-582 is intended to be your first introduction to the vast field of abstract algebra. This branch of mathematics seeks to abstract properties shared by familiar objects such as the integers and polynomials and see what other objects share these properties. A solid understanding of modern abstract algebra is essential for any mathematician. This sequence will introduce you to the concepts of groups, rings, fields, and vector spaces.

In this course we will cover Appendices A and B in Shifrin, as well as Chapters 1 and 2. If time permits we will also discuss section 5.1. A focus of this course will be to improve your proof writing skills. For my expectations of your individual and team homework assignments please visit the course homepage.

**Text:** *Abstract Algebra: A Geometric Approach* by Theodore Shifrin ISBN: 0-13-319831-6

## **Grading:**

- Individual Homework: 15% of final grade
- Team Homework: 15% of final grade
- Midterm 1: 20% of final grade
- Midterm 2: 20% of final grade

- Final Exam (Cumulative!!): 30% of final grade

**Exam Dates:** First Midterm Exam    Mon., Jan. 30 6:00-8:00 pm  
Second Midterm Exam    Mon., Feb. 27 6:00 - 8:00 pm  
Final Exam                      Wed., Mar. 15; 9:30 am - 11:18 am

Exam dates are ***absolutely*** firm. All students enrolled must plan to take exams at the scheduled times. Travel plans will ***not*** be considered an excuse to take an examination on a different date.