Text   We will be using *Abstract Algebra: Theory and Applications*, by Thomas W. Judson as our textbook. We will cover material from the first 14 chapters (Chapter 0 through Chapter 13), see the tentative schedule for exact chapters covered.

Home Page   Start at `http://buzzard.ups.edu/courses.html` to locate the WWW page for this course.

Office Hours   My office is in Thompson 303; the telephone number is 879–3564. Making appointments or simple, non-mathematical questions can be handled via electronic mail — my address is `beezer@ups.edu`. Office Hours are 11:00–11:50 on Monday and Friday, and 11:00-12:20 on Tuesday and Thursday. You may make an appointment for other times, or just drop by my office. Office hours are your opportunity to receive extra help or clarification on material from class, or to discuss any other aspect of the course.

Homework   Homework will be assigned for each chapter, but will not be collected. Of course, you are not limited to working *just* these assigned problems. Once per chapter we will have a problem session where we can discuss these problems. It is your responsibility to be certain that you are learning from the homework exercises. The best ways to do this are to work the problems diligently when assigned and to participate in the classroom discussion. If at this point you are still unsure about a problem, then a visit to my office is in order. Making a consistent effort outside of the classroom is the easiest way to do well in this course.

> Mathematics not only demands straight thinking, it grants the student the satisfaction of knowing when he [or she] is thinking straight.
> — D. Jackson

> Mathematics is not a spectator sport.
> — Anonymous

> I hear, I forget.
> I see, I remember.
> I do, I understand.
> — Chinese Proverb

> An education is not received. It is achieved.
> — Anonymous

Reading Questions   Reading questions for the entire semester are posted on the course WWW page, along with careful directions about submitting your responses. These are due to me by midnight the evening before we begin discussing a new chapter. These should be submitted to the email address announced in class, not my `beezer@ups.edu` address.

Sage Exercises   For each chapter there will be an assigned exercise to work in Sage. These will be due on the day of the problem session preceding the quiz on that chapter, as a Sage worksheet attached to an email sent to the same address as for reading questions.

Quizzes There will be twelve one-hour quizzes — see the attached sheet for tentative dates — at the conclusion of each chapter. The lowest two of your quiz scores will be dropped. The comprehensive final exam will be given at 8 AM on Friday, December 18. The final exam cannot be given at any other time, so be certain that you do not make any travel plans that conflict, and also be aware that I will allow you to work longer on the final exam than just the two-hour scheduled block of time.

Grades Grades will be based on the following breakdown: Quizzes — 70%; Reading Questions — 5%; Sage Exercises — 5%, Final — 20%. Homework, attendance and improvement will be considered for borderline grades. Scores will be posted anonymously on the World Wide Web at `http://buzzard.ups.edu/courses.html`.

Reminders Three reminders about university policies contained in the *Academic Handbook*. These are described thoroughly online, or a printed copy may be requested from the Registrar's Office (basement of Jones Hall).

"Regular class attendance is expected of all students. When non-attendance is in the instructors judgment excessive, the instructor may levy a grade penalty or may direct the Registrar to drop the student from the course."
See `http://www.pugetsound.edu/x4741.xml#registrationattendance`.

Withdrawal grades are often misunderstood. A Withdrawal grade (W) can only be given during the third through sixth weeks of the semester, after that time (barring unusual circumstances), the appropriate grade is a Withdrawal Failing (WF), *even if your work has been of passing quality.* See the attached schedule for the last day to drop with an automatic 'W'.
See `http://www.pugetsound.edu/x4727.xml#withdrawal`.

All of your graded work is expected to be entirely your own work. Anything to the contrary is a violation of the university's comprehensive policy on Academic Honesty (cheating and plagiarism). Discovered incidents will be handled strictly, in accordance with this policy. Penalties can include failing the course and range up to being expelled from the university.
See `http://www.pugetsound.edu/x4718.xml`.

Attendance Daily attendance is required, expected, and overall a pretty good idea.

Purpose At this point in your college career, you should be well on your way to being an independent scholar, who appreciates the beauty of mathematics and understands the effort needed to master new and difficult ideas. Consistent with that, I will be giving you a fair degree of freedom to learn this material in a manner that suits you.

Read the book before the lectures, work the exercises diligently, tidy up your class notes each evening, and ask questions. Arriving late to class, or having conversations with others during class, not only disrupts your peers, but tells me you are not serious about your education. I will not routinely check attendance, but our class is small enough that I will notice when you are not here, and again this will be another way that you signal me about your commitment to the endeavor.

Many consider group theory (the branch of Abstract Algebra that we will concentrate on this semester) one of the most fascinating areas of mathematics. The investment of your time and energy applied to studying it will be amply repaid by a full understanding of its deeper ideas.

Tentative Daily Schedule

Monday	Tuesday	Thursday	Friday
Aug 31 Syllabus Chapter 0	Sep 1 Chapter 0	Sep 3 Introduction to Sage	Sep 4 Problem Session
Sep 7 Labor Day Holiday	Sep 8 Quiz #0	Sep 10 Chapter 1	Sep 11 Chapter 1
Sep 14 Chapter 2 Dept Seminar 4:00 Prof. Perkinson	Sep 15 Problem Session	Sep 17 Quiz #1	Sep 18 Chapter 2
Sep 21 Problem Session	Sep 22 Quiz #2	Sep 24 Chapter 3	Sep 25 Chapter 3
Sep 28 Problem Session	Sep 29 Quiz #3	Oct 1 No class	Oct 2 Chapter 4
Oct 5 Chapter 4	Oct 6 Problem Session	Oct 8 Quiz #4	Oct 9 Chapter 5
Oct 12 Chapter 5 Last day to drop	Oct 13 Problem Session	Oct 15 Quiz #5	Oct 16 Chapter 8

Midterm

Monday	Tuesday	Thursday	Friday
Oct 19 Fall Break	Oct 20 Fall Break	Oct 22 Chapter 8	Oct 23 Problem Session
Oct 26 Quiz #8	Oct 27 Chapter 9	Oct 29 Chapter 9	Oct 30 Problem Session
Nov 2 Quiz #9a	Nov 3 Chapter 9	Nov 5 Chapter 9	Nov 6 Problem Session
Nov 9 Quiz #9b	Nov 10 No class	Nov 12 Chapter 11	Nov 13 Chapter 11
Nov 16 Problem Session	Nov 17 Quiz #11	Nov 19 Chapter 12	Nov 20 Chapter 12
Nov 23 Problem Session	Nov 24 Quiz #12	Nov 26 Thanksgiving	Nov 27 Thanksgiving
Nov 30 Chapter 13	Dec 1 Chapter 13	Dec 3 Chapter 13	Dec 4 Problem Session
Dec 7 Quiz #13	Dec 8 Housekeeping		

Final Examination
Friday, December 18, 8 AM

Suggested Exercises

Chapter	Computational	Theoretical
0	18, 25	8, 9, 22c, 28, 29
1	15	5, 10, 16, 18, 27
2	1, 3, 5, 6, 10, 17, 32	29, 30, 31, 38, 43, 44, 45, 46, 53
3	3, 4, 5, 6, 7, 8, 9, 11, 20, 21, 22b	24, 26, 27, 28, 30, 34, 37
4	2, 3, 5, 7, 9, 10, 15	4, 18, 20, 23, 25, 27, 30, 33, 35
5	1, 2, 5	3, 6, 11, 12, 17, 19, 20, 21, 22, 24
8	3, 5, 10, 12, 14, 16, 17	20, 21, 22, 24, 25, 29, 34, 35, 38, 48
9a	1bcd, 2, 3, 6	13, 17, 18, 20, 22, 23, 25, 26, 28
9b	5, 7, 8, 9, 10; Additional: 7, 8	12, 27, 29, 30; Additional: 2, 3, 9, 10
11	1, 2, 3, 4bc	6, 9, 11, 12, 13
12	2, 3, 4, 6, 9, 11, 13, 17 (S_3 only)	20, 22, 24
13	1, 2, 3, 5, 6, 9, 15, 16, 17, 24	4, 7, 8, 10, 12, 14, 21