

## MATH 521A: Abstract Algebra

Fall 2015 MWF 12-12:50 E 328

### Overview:

This course is on the theory of rings. It is an abstract course, with many definitions and proofs, but also motivating examples.

### Learning Objectives:

Students will carefully state all definitions and theorems relevant to the course, including all conditions and exceptions (if any). They will prove these theorems, as well as specializations and generalizations. They will apply the theorems and techniques to solve concrete problems.

### Textbook:

None required, although Hungerford's *Abstract Algebra, 3rd ed.*, Chapters 1-6 may be helpful. Students are expected to take careful notes in class, and to remedy any difficulties immediately.

### Course Mechanics:

Homework assignments will typically be collected Mondays, and brief quizzes given on other days. Quizzes immediately after exams will typically be "second-chance" quizzes on an exam question. There will also be three exams and a final. Schedule:

Homework: Aug. 31; Sep. 9,14,28; Oct. 5,12,19,26; Nov. 2,16,30; Dec. 7  
Holiday: Sep. 7; Nov. 11; Nov. 23-27  
Exam: Sep. 18; Oct. 14; Nov. 9  
Quiz: All other class days  
Final: Wed. Dec. 16, 10:30-12:30

### Grading:

The three exams are all open-notes, while the final is closed-book closed-notes. All grades will be normalized to lie between 50% (blank but present) and 100% (perfect score). Missing grades will still be 0%. The grading policy is as follows:

A	A-	B+	B	B-	C+	C	C-	D+	D	F
92.0	90.0	88.0	82.0	80.0	78.0	72.0	70.0	68.0	62.0	0

Each student will earn seven grades: the three exam grades, the homework grade (best 10 out of 12), the quiz grade (best 25 out of 27), the final exam

grade, and the final exam grade a second time. The course grade will be the average of the highest six out of these seven grades. This policy is in place to accommodate students for whom one of the measures does not accurately represent their abilities.

**Collaboration:**

Students are expected to work homework exercises in groups, with weekly meetings. Groups are normally expected to consist of 3 or 4 people. Initial groups are chosen by the students. After each midterm they will be re-assigned, by the instructor, to contain people with similar grades. If you have strong preferences for these reassignments, please notify the instructor.

Each group will turn in one homework set, with the grade shared by all group members. Also, quiz scores will be averaged within each group, with each member of the group receiving the average grade. Note that one missing group member will dramatically lower the average for the whole group.

**Attendance:**

Students are expected to attend every class, and to get copies of the notes should a class be missed. Makeup quizzes and exams are not given under any circumstances. Under extraordinary circumstances (e.g. hospitalization), an alternative grading policy may be used.

If missing a quiz is unavoidable, you may notify the instructor in advance and earn 5/10 (instead of 0/10). This may be done at most twice.

**SDS:**

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that accommodations based upon disability cannot be provided until you have presented your instructor with an accommodation letter from Student Disability Services. Your cooperation is appreciated.

**Professor:**

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Office hours: GMCS 511, MWF 11-11:45am, and by appt.