Instructor: Joseph Gubeladze

- Lecture: MWF 10:10-11:00am  Room: HSS 302
- Office: TH 941
- Phone: (415) 338 7722
- e-mail: soso@math.sfsu.edu


Prerequisite: (a) Math 325 (Linear Algebra) and (b) Math 301 (Exploration and Proof) or instructor’s consent.

Office Hours: We 1:00 – 3:15pm

Grading:
- Two midterms – 15% each
- Final – 30%
- Homework (assigned each week on Fridays) – 30%
- Attendance – 10%
- Make-up exams will be given for serious documented reasons, by prior arrangement.

Tentative Exam Dates:
- 1st Midterm – October 4
- 2nd Midterm – November 12
- Final – December 17

Course Description
In the first approximation we can say that algebra studies structures, i.e. sets with operations: like integers or rational numbers with addition and multiplication, vector spaces, linear mappings, matrices.

The abstract point of view, based on axiomatic approach, reveals many deep ideas subtly intervened at the origin of seemingly innocent structures such as arithmetic of integers. Yet the ubiquity of these ideas in many mathematical disciplines is truly astonishing. They serve as an elegant and mathematically rigid organizing laws/forces of the vast universe of the contemporary mathematics. The generations of brilliant minds have crystallized these ideas in the concepts of group, ring, field, quotient structures, homomorphisms – the topics we will cover in this course.

As usual, we will not strive for the maximal possible generality, rather will develop theory to the extent to attain some familiarity with the mentioned structures,
with emphasis on factor groups and factor rings. Also, we will mostly skip non-commutative groups and rings. It is therefore important that you come to classes and, hence, the grading policy regarding the attendance.

- In the first part we will cover Chapters 0,1,2,3,4,7.
- In the second part we will cover Chapters 9,10,12,13,14.
- In the final part we will cover Chapters 16,17,19,20.
- During the semester we will have several open days devoted to discussion on coming exams, homework, etc. I will post practice problems before each midterm. The exams will not be comprehensive – they will be related only to the corresponding part of the course.

Homework
You will be assigned homework problems every week on Fridays which will be due at the start of the lecture on the following Friday. At the end of the semester the two homeworks with the lowest grade will be dropped and will not be considered for your letter grade.

All homeworks can be done either individually or in groups up to 3 students. Due to the increased size of the class I actually encourage you to consider working in such groups.

Policy
- Please be punctual, not be late in class; cell phones must be switched off in class.
- No late homeworks will be accepted.
- If a schedule conflict does not allow you to come to my office hours please feel free to e-mail me and make an appointment.
- All up-to-date information (homework assignments, solutions, announcements) will be posted on the course page:
  http://math.sfsu.edu/gubeladze/fall2004/335/335.html

FROM THE MATHEMATICS DEPARTMENT

Every semester about 4,000 students enroll in mathematics courses ranging from Algebra I to advanced graduate theory. Your teacher will explain all the procedures for your class, but some rules apply to all classes. This note will explain the most important University rules, the ones that cause students the most trouble each semester.

Here is a short version of the University calendar for Fall, 2004. Note that the Mathematics Department strictly enforces the deadlines for CR/NCR grading and withdrawals.
- September 10 Last day to add classes.
- September 22 Last day to drop classes online.
• October 20 Last day to select CR/NCR grading November.
• 15 Last day to withdraw from a course.
• November 25-28 Thanksgiving Break December.
• 1 Advising Day. Classes cancelled.
• December 10 Last day of instruction.
• December 11-17 Final exams.
• January 3 Grades due from instructors.

CR/NCR Grading
Most Mathematics classes allow CR/NCR grading, but many majors—including Mathematics—do not count CR/NCR grades towards the major. Mathematics majors should not take their Mathematics classes CR/NCR. All other majors should check with their academic advisors before deciding to take a Mathematics class CR/NCR.

If—after checking with your advisor—you want to apply for CR/NCR grading, you must log onto the web site www.sfsu.edu/student and sign up for CR/NCR grading before the October 20 deadline. Your instructor will not pass out a CR/NCR sheet in class.

Incompletes.
The Incomplete grade (I) is assigned only to students doing satisfactory work until the last few weeks of a course, when events beyond the students’ control prevented them from completing the course. If this happens to you, discuss with your instructor the possibility of taking an Incomplete rather than withdrawing from a class that you cannot finish.

Late and Retroactive Withdrawals.
Petitions for withdrawal from a class after the November 15 deadline, either before the end of the semester (late withdrawal) or after the semester ends (retroactive withdrawal) must be justified by events that occurred after the deadline. In general, only petitions for withdrawal from all courses will be approved. Late withdrawal from your math course alone is usually not approved.

Students with Disabilities
Students with disabilities needing reasonable accommodations must bring an official written request to their instructor from the Disability Programs and Resource Center (Student Services Building, Room 110, (415) 338-1041, drc@sfsu.edu). The DPRC is available to facilitate the reasonable accommodations process.

Religious Holidays
Reasonable accommodations will be made for you to observe religious holidays when such observances require you to be absent from class activities. It is your responsibility to inform the instructor during the first two weeks of class, in writing, about such holidays.