INSTRUCTOR: Leonardo Constantin Mihalcea

OFFICE: McBryde 538

EMAIL: lmihalce@math.vt.edu

PHONE: 231-5053.

OFFICE HOURS (tentative): Wednesday 3-5 PM or by appointment.

PREREQUISITES: Math 3124 (Modern Algebra) - Very Important!


COURSE CONTENT: Most sections of chapters 1,2,3,4,5,7; sections 2.5 and 3.4 will be skipped. I will assume that you are familiar with the Preliminary section (pages 1–15). I will start with section 1.1, the definition of a group; this you should know and some of the early stages of the course will be merely review.

COURSE OBJECTIVES: The purpose of this course is to introduce the students to basics of group theory and ring theory. The highlight is the discussion on group actions and Sylow Theorems (Chapter 4), which are fundamental in understanding the theory of finite groups.

HOMEWORK: There will be a substantial amount of homework, consisting mostly of exercises from the textbook. The homework will be assigned at least one week before it is due, and it will be collected on Wednesday in class, although you can still turn it in before 5PM in my office. It will be considered late after that. Late homeworks are discouraged, and may result in no credit; the maximum for a late homework is half the credit. Not only that you can discuss the homework problems with your peers, I am encouraging you to do so; but you are responsible for writing up your work individually.

EXAMS: There will be three in-class exams and a final exam. Dates:
Exam 1: Wednesday, September 23 (in the evening). Exam covers Chapters 1 - 3.
Exam 2: Wednesday, October 21 (in the evening). Exam covers Chapter 4 and 5.1.
Final exam: Friday, December 11, 10:05 AM - 12:05 PM.

GRADING: The exams are worth will count as following: exam 1 is worth 15 %, exams 2 and 3 are worth 20 %, final exam 35 %. The homework counts as 10 %.

EXAM POLICY: No makeup tests will be given. If you absolutely cannot take a test then the grade will be replaced by the final exam. You need to tell me BEFORE the test what your circumstances are. Normally, only medical reasons, with a doctor’s note, will allow
you to take the aforementioned option. Travel plans are **not** extenuating circumstances. Students must take the final examination at the scheduled time.

**CLASS PARTICIPATION:** There will be a substantial number of opportunities that you answer questions in class, and possibly some opportunities to volunteer and solve homework problems at the board. Both of these account for class participation. The students with a good or excellent record on this will benefit of the "participation bump" at the end of the semester. This typically means that if a student is borderline between one grade and the next, they will be bumped up.