

Math 200b Fall 2012: Graduate Algebra II.

MWF 2-2:50pm, 5402 AP&M

Professor D. Rogalski

1. CONTACT INFORMATION

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2. BASIC COURSE INFORMATION

- **Course description** This is a rigorous second course in graduate level algebra. Math 200a is the prerequisite.

- **Qualifying exam** The three quarter sequence 200a-c is preparation for the qualifying exam in algebra which will be given in May 2012, and again in September 2012. These exams will be tailored to the topics we cover in the course this year.

- **Textbook** The main textbook is *Abstract Algebra* by Dummit and Foote. We will cover parts of Chapters 10-14 this quarter. Generally, I think you will find it helpful both to read the book thoroughly and to attend lectures. I will follow the general order of topics as the book for the most part and try to stick to its notation, but will not follow its presentation closely. The book is full of many more worked examples than we can possibly do in lecture, and you may find this helpful. On the other hand, the book's comprehensive treatment can make the subject seem denser than it is, and in class I generally strive to emphasize the most important points.

Other good textbooks you could consult for reference include *Algebra* by Hungerford and *Algebra* by Isaacs.

- **Homework** Homework will be assigned weekly (most weeks) and due on Fridays. The assigned problems will be posted on the class website. Only selected problems will be graded, but you are responsible for completing and understanding all problems. You are free to discuss the homework problems in general with the professor, the TA, or each other, but your final write-up of the problems must be your work alone. If you

actually submit solutions that are not your own work, for example directly copying from an online solution bank, you will not get credit and I will have to report you for academic dishonesty.

- **Exams** There will be one in-class midterm, tentatively scheduled for Monday February 13, 2012. The final exam will be Monday, March 19, 2012 from 3:00-6:00 pm.

- **Grading** Your grade will be roughly based on a final score given by using the following percentages: Homework 25%, Midterm 25%, Final Exam 50%. However, letter grades for graduate students are really just advisory. Your grade in this class is meant to reflect how your current performance corresponds to your likely result on the qualifying exam to be held next year: A = PhD Pass, A- = Provisional PhD Pass, B+/B = Master's Pass, C or less = not likely to pass the qual.

- **Topics** The topics for the winter quarter will be module theory and field theory. We will cover most of chapters 10 and 12-14. We will only briefly review a few of the topics in Chapter 11 that we need (I will assume you have a basic background in linear algebra.)