Syllabus for Mathematics 702
Spring 2015

Class Meetings: TTh 2:50pm–4:05 pm in LeConte 310
Instructor: George McNulty
Office: 302 LeConte
Office Hours: Monday and Thursday from 1:00 pm to 2:30pm.
Actually, anytime I am in my office
(The best times are on Monday and Wednesday)
Contact Info: 781-9505 (Home) 777-7469(Office) email: mcnulty@math.sc.edu

Examination Schedule

Midterm 0	Midterm 1	Midterm 2	Final
Thursday 12 February	Thursday 19 March	Thursday 16 April	Tuesday 5 May at 12:30pm

If you cannot take an exam at the scheduled time, see me to arrange an alternate time.

What you should work to acheive in this course

- To acquire a reliable algebraic intuition,
- To come to friendly terms with the basic concepts and examples in algebra,
- To master a number of the techniques and methods of algebra in general and the theories of groups and fields in particular.
- To acquire a fluency with algebraic ideas, results, methods, and examples that will lead to success on the Ph.D. qualifying examination in algebra.

Weekly Problem Sets
There will be roughly one problem set each week, generally due at the Thursday meetings of the class. The problems, for the most part, will be like those on the Ph.D. Qualifying exam. Students are encouraged to collaborate on their solution.

Examinations
The examinations will be cumulative with 4 problems on Midterm 0, 8 problems on Midterm 1, and 12 problems on Midterm 2 and on the final. The problems accumulate in the sense that, for example Problem 4 will always test roughly the same material on each examination. Once you master a particular problem, it is not necessary to attempt it on later exams. So the idea is to attempt 3 or 4 problems on each of the Midterms (even though more problems are offered) and use the final to attempt those problems that you have yet to master.

Course Grades
I keep track of how you do on each examination problem. At the end of the semester, if you have mastered at least 8 of the problems I will assign an **A**, while mastery of between 5 and 7 problems will merit some kind of **B**. Weaker performances (none I hope) will earn lower grades. An **A** in this course means I think that you have a good shot at passing the Algebra portion of the Qualifying Exam, provided you work during the summer to keep the ideas and theorems fresh in your mind. A **B** in the course means I think you have a shot at passing the Algebra portion of the Qualifying Exam, but you will need to work pretty hard over the summer to gain a better command of the ideas and methods needed.