

1. Instructor: B. Dodson, Room 207 XS, Phone x8-3745, Email bad0.

2. Text: Adkins-Weintraub, Algebra, *An Approach via Module Theory*. Selected portions of Chapters 1-2 will be covered.

For rings we will focus on rings of algebraic integers and polynomial rings, including the characterization of unique factorization domains. Special attention will be given to quadratic integers and cyclotomic integers, including the statement of Kronecker's completeness theorem. Abstract group theory will feature examples, statements and proofs of Sylow theory. Attention will be given to p-groups and other nilpotent groups; transitive permutation groups of small degree (and the relation to number fields); groups of medium order; and finite classical groups of Lie type.

3. Attendance is required in class.

4. There will be 200 points for Homework.

5. There will be one hour exam, which counts for 100 points. The final exam will count for 200 points.

6. For further study in this subject I hope that you will consider the second semester of this course, Math 428; which in some semesters has continued with Chapters 3-5 of our text, and includes Professor Weintraub's text on Galois Theory.