Pries: 466 Groups, rings, and fields: Tentative Syllabus

Week	Starts	Topics
1	8/20	Introduction to fields and Galois theory
2	8/27	Ideals, factor rings, irreducible polynomials
3	9/5	Extension fields
4	9/10	Algebraic extensions, splitting fields
5	9/17	Cyclotomic fields
6	9/24	Finite fields
7	10/1	Automorphisms
8	10/8	Galois theory
9	10/15	Insolvability of quintic, Noether's Theorem
10	10/22	Elliptic curves
11	10/29	Rational points on elliptic curves
12	11/5	Torsion points on elliptic curves
13	11/12	Elliptic curves over finite fields
		Thanksgiving break
14	11/26	Capstone presentations
15	12/3	Capstone presentations

Important Dates:
Midterm 1: Week 7, Friday 10/5
Midterm 2: Week 13, Friday 11/16
Capstone project: due Monday 12/10
Final exam period (Monday 12/10 9:10-11:10) will be used for capstone presentations.

Topic	Gallian	Wilkons	Reid
Introduction	15		pg 1-8
Ideals/factor rings	14		2.2
Irreducible polynomials	17	4.1-4.3	2.3-2.4
Extension fields	19-20	4.4	
Algebraic extensions	21	4.5	3.1
Splitting fields		4.8	3.3
Cyclotomic extensions	33	Baker 6.2	
Finite fields	22	4.11	3.4
Automorphisms	32	4.13-4.14	4.1-4.2
Galois theory		4.18	4.3
Quintic	9	4.20-4.22	4.4-4.5