

## Math 120A Suggested Syllabus

**Text:** *A First Course in Abstract Algebra*, Fraleigh

Lecture	Section	Topic
1	1	Introduction and examples
2	2	Binary Operations
3	2	Cont.
4	3	Isomorphisms of Binary Structures
5	4	Groups
6	4	Cont.
7	4	Cont.
8	5	Subgroups
9	5	Cont.
10	6	Cyclic Groups
11	6	Cont.
12	8	Permutation Groups
13	8, 9	Permutation Groups, Orbits, Cycles
14	9	Transpositions and the Alternation Group
15		Review
16		<b>Midterm</b>
17	10	Cosets and Lagrange's Theorem
18	10	Cont/
19	11	Direct Products ( <i>Optional</i> - Fundamental Theorem of Finitely Generated Abelian Groups)
20	11	Cont.
21	13	Homomorphisms
22	13	Cont.
23	14	Factor Groups
24	14	Cont.
25	15	Factor Group Computations
26	15	Cont.
27	34	First Isomorphism Theorem ( <i>Optional</i> )
28	36	Sylow Theorems ( <i>Optional</i> )
29		Review