Abstract Algebra
(MATH 3063)
Spring 2007

Professor: Dr. Paul Bailey

Office: WIL 228

Office Hours: MTWRF 10 am to 11 am; TR 1 pm to 2 pm

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Book: *Elements of Modern Algebra*, Gilbert & Gilbert, 6$^{\text{th}}$ edition

Grade Components

Problems:	25%
Quizzes:	25%
Midterms:	25%
Final:	25%

Homework exercises from the textbook will be assigned daily to be completed before the next class. These will not be collected, but they need to be done in a timely fashion to keep up with the course. Questions regarding the homework will be addressed at the beginning of the next lecture.

Occasional challenge problems will be handed out, to be thought about and completed outside of class. Mathematics should be written neatly, and *in complete sentences*.

There will be a quiz almost every Friday. No makeup quizzes will be given *unless arrangements are made before the day of the quiz*.

There will be two midterm examinations and one final examination. The final examination has been scheduled by the university for Monday, May 7, 2007, at 1:10 p.m.

Calculators can be detrimental to the study of mathematics. The use of calculators, cell phones, laptop computers, and all electronic devices is strictly prohibited during quizzes and examinations, and is discouraged while studying. You may use an abacus.

Course Outline

Week	Beginning	Topic	Sections
Week 0	Jan 17	Sets and Functions	1.1,1.2,1.3,1.5
Week 1	Jan 22	Integers	2.1-2.6
Week 2	Jan 29	Modular Arithmetic	2.5,2.6
Week 3	Feb 5	Binary Operations	1.4,1.5,1.6,4.1
Week 4	Feb 12	Groups	3.1-3.3
Week 5	Feb 19	Group Homomorphisms	3.4,3.5
Week 6	Feb 26	Cosets	4.3,4.4
Week 7	Mar 5	Quotient Groups	4.5,4.6
Week 8	Mar 12	Rings and Domains	5.1,5.2
Week 9	Mar 19	Ring Homomorphisms and Ideals	6.2,6.1,6.3
Week 10	Mar 26	SPRING BREAK	
Week 11	Apr 2	Fields	6.4,5.3
Week 12	Apr 9	Complex Numbers	7.1-7.3
Week 13	Apr 16	Polynomials over a Field	8.1-8.4
Week 14	Apr 23	Field Extensions	8.6
Week 15	Apr 30	Field Automorphisms	8.6