

Abstract Algebra
(MATH 3063)
Spring 2008

Professor: Dr. Paul Bailey

Office: WIL 228

Office Hours: MTWRF noon to 1 pm; MWF 1 pm to 2 pm

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Book: *Contemporary Abstract Algebra*, Joseph A. Gallian, 6th edition

Grade Components

Problems: 30%

Quizzes: 20%

Midterms: 30%

Final: 20%

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 will be scheduled by the university during the week of May 5, 2008.

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	Chapters
Week 0	Jan 16	Sets and Functions	Notes
Week 1	Jan 21	Preliminaries	0
Week 2	Jan 28	Groups	1, 2
Week 3	Feb 4	Subgroups	3, 4
Week 4	Feb 11	Permutation Groups	5
Week 5	Feb 18	Group Homomorphisms	6, 7, 10
Week 6	Feb 25	Group Products and Quotients	8, 9
Week 7	Mar 3	Rings	12
Week 8	Mar 10	Domains	13
Week 9	Mar 17	SPRING BREAK	
Week 10	Mar 24	Ring Homomorphisms and Ideals	14, 15
Week 11	Mar 31	Polynomial Rings	16, 17
Week 12	Apr 7	Divisibility	17, 18
Week 13	Apr 14	Vector Spaces	19
Week 14	Apr 21	Field Extensions	20, 21
Week 15	Apr 28	Finite Fields	22