

MATH 369 (MATH 601N)

Abstract Algebra I

Fall 2014

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Text: *Abstract Algebra*, by David S. Dummit and Richard M. Foote, John Wiley & Sons Inc., 3rd Edition, ISBN: 978-0-471-43334-7.

Grading: The final grade will be the higher of:
either a) the final exam (100%)
or b) Class quizzes (10%), Midterm (30%), Final (60%).

Assignments: Assignments will be given each week and announced in class. They are very important, even if they carry no credit and are not to be handed in. Class quizzes will be short quizzes held during class and will be based on the assignments.

Topics: This is a standard first course on group theory.

Chapter	Topics to be Covered
0	Preliminaries: <ul style="list-style-type: none">- Sets and Integers
1	Introduction to Groups: <ul style="list-style-type: none">- Definitions and examples- Homomorphisms and isomorphisms- Group actions
2	Subgroups: <ul style="list-style-type: none">- Definitions and examples- Cyclic groups and subgroups- Subgroups generated by subsets
3	Quotient Groups and Homomorphisms: <ul style="list-style-type: none">- Lagrange's Theorem- Isomorphism Theorems
4	Group Actions: <ul style="list-style-type: none">- Cayley's Theorem- The Class Equation- Sylow's Theorems