

Math 360 Algebraic Structures I

11:00-11:50 MWF

Please contact me if you have special needs.

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Office Hours:

Topics

Preliminaries

Introduction to Groups

Groups

Homomorphisms

Subgroups

Cyclic Groups

Cyclic Groups II

Alternating Groups

Permutation Groups

Assessment and Evaluation

Participation 10%

Quizzes 15%

Homework 15%

Midterm Exam 35%

Final Exam 25%

Final Grading

93-100% A

90-92% A-

88-90% B+

83-87% B

80-82% B-

78-79% C+

73-77% C

70-72% C-

Course Description

Algebraic Structures I is the study of various types of categories and their inherent structures. In this course, we examine Sets and Groups

Objectives

1) Students will demonstrate reasoning and problem solving ability by modeling, generalizing, and justifying the main notions associated with Algebraic Structures, particularly Sets and Groups..

2) Students will demonstrate excellent written and oral communication in their demonstrations of Objective 1).

3) Students will demonstrate cooperative learning skills both inside and outside of class.

Text(s)

Math 360

Algebraic Structures I

Geometric Applications

68-69% D+

by

63-67% D

Dr. Chris Black

About This Class

60-62% D-

Group Explorer Software:

Algebraic Structures is traditionally a first course in the mathematics curriculum that demands formal use of logic to prove theorems. The course content highlights a framework supporting nearly ALL modern mathematics. As such, the subject cannot be learned by cursory survey, but must be examined with intensity. Take time to think about and discuss ideas and to write and rewrite proofs. Make working with others a priority, but also take time to internalize the ideas yourself. Rewards for your hard work will include understanding the "superstructure" of mathematics.

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