

# Notes on Abstract Algebra

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Lecture notes from Math 541 Modern Algebra I, Fall 2025.

Reference:

- Dummit and Foote, Abstract Algebra, 3rd edition
  - lectures by prof. Mikhail Ivanov
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***Midterm 1 Cutoff***

## **Chapter 1**

## **Chapter 2**

### **2.4**

Midterm 2 coverage: 2.4, 2.5, 3.1, 3.2, 3.3, 3.5, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2

### **2.5**

## **Chapter 3**

**3.1**

**3.2**

**3.3**

**3.5**

## **Chapter 4**

**4.1**

**4.2**

*Groups acting on themselves by left multiplication – Cayley's Theorem*

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**4.3**

**4.4**

## **Chapter 5**

**5.1**

**5.2**

***Mitterm 2 Cutoff***