

EWHA WOMANS UNIVERSITY
DEPARTMENT OF MATHEMATICS

Abstract Algebra I Syllabus (Spring 2020)

Professor: Yoonjin Lee

Office: Science Complex Building B, 313

Prerequisite: Linear Algebra, Number Theory (optional)

Text: *A FIRST COURSE IN ABSTRACT ALGEBRA* by John B. Fraleigh (Seventh Edition, Addison Wesley).

References:

Abstract Algebra by T.W. Hungerford (Springer)

Abstract Algebra by D.S. Dummit and R.M. Foote (Wiley)

Course Description:

Throughout Abstract Algebra I we study comprehensive concepts of **Groups** and basic notions of **Rings** assuming students have the basic knowledge of linear algebra.

Course Outline:

Chapter 1. Groups and Subgroups

Chapter 2. Permutations, Cosets, and Direct Products

Chapter 3. Homomorphisms and Factor Groups

Chapter 4. Rings and Fields

Chapter 5. Ideals and Factor Rings

Some adjustments may be applied.

Grading Scheme:

HW Assignments: 10 %

Quizzes: 15 %

Test 1 (Midterm): 32 %

Test 2 (Final Exam): 40%

Attendance (class and TA session): 3%

Schedule of Exams:

Test 1: **June 8, 2020** (Mon.)

Test 2: **June 24, 2020** (Wed.)

Grades and policy:

* You will be evaluated throughout the whole semester by means of one midterm, a comprehensive final exam, two quizzes and weekly homeworks.

* Make-up quizzes and exams will NOT be given. NO late homework will be accepted.

Class expectations:

Students are expected to attend all the lectures. You have to spend enough time for reviewing the material on a regular basis. The best way to learn the material is to spend enough time thinking about the homework problems virtually every day as our class progresses. In addition, you are encouraged to discuss the homework assignments with others, but you must write up your own solutions and turn them in individually.