

EWHA WOMANS UNIVERSITY
DEPARTMENT OF MATHEMATICS

Abstract Algebra II syllabus (Fall 2020)

Professor: Yoonjin Lee

Prerequisite: Linear Algebra, Abstract Algebra I, 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:

Based on the study of groups and rings in Abstract Algebra I, throughout Abstract Algebra II we study comprehensive concepts of **Fields** and **Galois Theory**.

Course Outline:

Chapter 5. Ideals and Factor Rings

Chapter 6. Extension Fields

Chapter 7. Advanced Group Theory

Chapter 10. Automorphisms and Galois Theory

Chapter 9. Factorizations

Some other topics may also be included.

Grading Scheme :

- HW Assignments: 10%

- Quizzes: 15%

- Test 1: 35%

- Test 2: 35%

- Attendance and Attitudes: 5%

* Combination of Absolute scheme and Relative scheme

Schedule of Exams:

Test 1 on **October 7** (Wed.), 2020

Test 2 on **November 30** (Mon.), 2020

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.

This syllabus is subject to change due to circumstances such as COVID19. The change will be notified via cyber campus.