

Algebra II

Schedule

September 8, 2017

Date	Title & Note	Assignments
September 8	Lecture 1. Introduction to Rings	Read 12, and do 5 exercises
September 13	Recitation Ex. 12 (Volunteers)	Review 12
September 15	Lecture 2. Integral Domains	Read 13, and do 5 exercises
September 18	Recitation Ex. 13 (Volunteers)	Review 13
September 20	Lecture 3. Ideals and Factor Rings	Read 14, and do 5 exercises
September 22	Recitation Ex. 14 (Volunteers)	Review 14, and do 5 in Suppl. Ex. 12–14
September 25	Recitation Suppl. Ex. 12–14 (Volunteers)	Review 12–14 and T/F on p.281
September 27	Lecture 4. Ring Homomorphisms	Read 15 and do 5 exercises
September 29	Recitation Ex. 15 (Volunteers)	Review 15
October 2	Lecture 5. Polynomial Rings	Read 16, and do 5 exercises
October 4	Recitation Ex. 16 (Volunteers)	Review 16
October 6	Lecture 6-1. Factorization of Polynomials I	Read 17
October 9	Lecture 6-2. Factorization of Polynomials II	Read 17, and do 5 exercises
October 11	Recitation Ex. 17 (Volunteers)	Review 17
October 13	Lecture 7-1. Divisibility in Integral Domains I	Read 18
October 16	Lecture 7-2. Divisibility in Integral Domains II	Read 18, and do 5 exercises
October 18	Recitation Ex. 18 (Volunteers)	Review 18, and do 5 in Suppl. Ex. 15–18
October 20	Recitation Suppl. Ex. 15–18	T/F on p.347, read 19 and do 5 exercises
October 25	Recitation Ex. 19 (Volunteers)	Review 19
October 27	Lecture 9-1. Extension Fields I	Read 20
October 30	Lecture 9-2. Extension Fields II	Read 20, and do 5 exercises
November 1	Recitation Ex. 20 (Volunteers)	Review 20
November 3	Lecture 10-1. Algebraic Extensions I	Read 21
November 6	Lecture 10-2. Algebraic Extensions II	Read 21, and do 5 exercises
November 8	Recitation Ex. 21 (Volunteers)	Review Sheet
November 10	Review	Preparation for Final Exam
November 13	Review	Preparation for Final Exam

All assignments are due next class. No class on September 11, October 23.

Algebra II final will be given during the term exam week. The schedule above is subject to change.

Textbook for Algebra I and II Joseph A. Gallian, Contemporary Abstract Algebra – 8th Edition – International Edition — Paper back ISBN-13: 978-1-133-60675-8

Grading Policy Grade will be decided by the performance on the following: Home Work (40%), Class Participation by Solving Problems (20%), and Final Exam (40%).

Moodle and Home Page

Moodle: <https://moodle.icu.ac.jp/27/course/view.php?id=1435> (Key: ALGII2017)

<https://icu-hsuzuki.github.io/science/class/algebra2/index-j.html>

Schedule, references, old quizzes, old finals, old midterms and their solutions, and much more.

Author’s Home Page: <http://www.d.umn.edu/~jgallian/>

Supporting documents, True/False Quizzes, software and much more.

Sage, Computer Algebra: <http://www.sagemath.org/>

<https://icu-hsuzuki.github.io/science/computer/education/sage-j.html> (*Japanese Support*)

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