

## Algebra II

### Schedule (*Revised*)

| Date         | Title & Note                                    | Assignments                                |
|--------------|---|--|
| September 9  | Lecture 1. Introduction to Rings                | Read 12, and do 5 exercises                |
| September 11 | Recitation Ex. 12 (Volunteers)                  | Review 12                                  |
| September 13 | Lecture 2. Integral Domain                      | Read 13, and do 5 exercises                |
| September 16 | <i>No class by typhoon</i>                      |  |
| September 18 | Recitation Ex. 13 (Volunteers)                  | Review 13                                  |
| September 20 | Lecture 3. Ideals and Factor Rings              | Read 14, and do 5 exercises                |
| September 25 | Recitation Ex. 14 (Volunteers)                  | Review 14                                  |
| September 27 | Recitation Suppl. Ex. 12–14                     | Review 12–14 and T/F on p.276              |
| September 30 | Lecture 4. Ring Homomorphisms                   | Read 15 and do 5 exercises                 |
| October 2    | Recitation Ex. 15 (Volunteers)                  | Review 15                                  |
| October 4    | Lecture 5. Polynomial Rings                     | Read 16, and do 5 exercises                |
| October 7    | Recitation Ex. 16 (Volunteers)                  | Review 16                                  |
| October 9    | Lecture 6-1. Factorization of Polynomials I     | Read 17                                    |
| October 11   | Lecture 6-2. Factorization of Polynomials II    | Read 17, and do 5 exercises                |
| October 14   | Recitation Ex. 17 (Volunteers)                  | Review 17                                  |
| October 16   | Lecture 7-1. Divisibility in Integral Domain I  | Read 18                                    |
| October 18   | Lecture 7-2. Divisibility in Integral Domain II | Read 18, and do 5 exercises                |
| October 21   | Recitation Ex. 18 (Volunteers)                  | Review 18, and do 5 exercises on p.341–342 |
| October 23   | Recitation Suppl. Ex. 15–18                     | T/F on p.341, read 19 and do 5 exercises   |
| October 25   | Lecture 9-1. Extension Fields I                 | Read 20                                    |
| October 28   | Lecture 9-2. Extension Fields II                | Read 20, and do 5 exercises                |
| October 30   | Recitation Ex. 20 (Volunteers)                  | Review 20                                  |
| November 1   | 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 11  | Review  | Preparation for Final Exam                 |

All assignments are due next class.

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 – 7th Edition – International Version — Paper backs ISBN-13: 978-0-495-83153-2 574 pages + appendix 51 pages

**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%).

**Home Page** <http://subsite.icu.ac.jp/people/hsuzuki/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.

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