

Algebra I

Schedule

Date	Title & Note	Assignments
April 11	Lecture 1. Groups	Read 1, Ex. 1.2, 1.3, 1.22
April 14	Lecture 2. Examples + Recitation	Read 2, Ex. 2.3, 2.8 + 3 others
April 16	Recitation Ex. 2 (Volunteers)	Review 2
April 18	Lecture 3. Finite Groups; Subgroups	Read 3, Ex. 3.1, 3.22 + 3 others
April 21	Recitation Ex. 3 (Volunteers)	Review 3
April 23	Lecture 4. Cyclic Groups	Read 4, Ex. 4.1, 4.9 + 3 others
April 25	Recitation Ex. 4 (Volunteers)	T/F and 1, 4, 12, 22, 34 (see p.91-4)
April 28	Lecture 5. Permutation Groups	Read 5, Ex. 5.2, 5.4 + 3 others
April 30	Recitation Ex. 5 (Volunteers)	Review 5
May 2	Lecture 6. Isomorphisms	Read 6, Ex. 6.4, 6.5 + 3 others
May 7	Recitation Ex. 6 (Volunteers)	Review 6
May 9	Lecture 7. Cosets and Lagrange's Theorem	Read 7, Ex. 7.1, 7.3 + 3 others
May 12	Recitation Ex. 7 (Volunteers)	Review 7
May 14	Lecture 8. External Direct Products	Read 8, Ex. 8.2, 8.9 + 3 others
May 19*	Recitation Ex. 8 (Volunteers)	T/F and Ex. 6, 7, 18, 19, 32 (see p.174-7)
May 21*	Lecture 9. Normal Subgroups and Factor Groups	Read 9, Ex. 9.5, 9.15 + 3 odds
May 23*	Recitation of Odd Numbered Problems of Ex. 9	Read 9, Ex. 9.4, 9.8 + 3 evens
May 26	Recitation of Even Numbered Problems of Ex. 9	Review 9
May 28	Lecture 10. Group Homomorphisms	Read 10, Ex. 10.5, 10.7 + 3 odds
May 30	Recitation of Odd Numbered Problems of Ex. 10	Read 10, Ex. 10.16, 10.20 + 3 evens
June 2	Recitation of Even Numbered Problems of Ex. 10	Review 10
June 4	Lecture 11. Fund. Thm of Finite Abelian Groups	Read 11, Ex. 11.3, 11.5 + 3 odds
June 6	Recitation of Odd Numbered Problems of Ex. 11	Read 11, Ex. 11.8, 11.10 + 3 evens
June 9	Recitation of Even Numbered Problems of Ex. 11	T/F and 9, 14, 15, 19, 41 (see p.230-3)
June 11	Lecture 12. Sylow Theorems	Read 24, Ex. 24.5, 24.7 and 3 others
June 13	Recitation Ex. 24 (Volunteers)	Review 24
June 17	Review and Recitation	Preparation of Final Exam

*: C-Week Schedule

All assignments are due next class.

Algebra I 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 (Similar to 7th Edition)– International Version — Paper backs ISBN-13: 978-1133606758 640 pages

Grading Policy Grade will be decided by the performance on the following: Home Work (35%), Class Participation by Solving Problems (15%), and Final Exam (50%).

Home Page and More <http://subsite.icu.ac.jp/people/hsuzuki/science/class/algebra1/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.

Moodle: <http://oles.icu.ac.jp/moodle/>, Enrollment Key: MTH3312014

Math Word Search, J to E and E to J: <http://cpu.icu.ac.jp/math/search-text.cgi?>

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

<http://subsite.icu.ac.jp/people/hsuzuki/science/computer/education/sage-j.html> (*Japanese Support*)

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