

TEXT: *Abstract Algebra: An Inquiry-Based Approach*, by J. Hodge, S. Schlicker and T. Sundstrom

SCHEDULE: Unless announced otherwise, all topics listed herein will be possible topics on the final exam. The daily schedule in your section may vary slightly from the schedule listed below.

DAILY WORK: Do the reading from the sections to be covered before coming to class each day. The exercises listed below represent a minimal assignment and should be done as the material is covered. Some students may need to work additional exercises from the text to attain sufficient mastery of the material.

CALCULATORS: You will be permitted to use a calculator on exams. Calculators which are able to do “symbolic manipulation” will not be permitted on quizzes and exams. Sufficient work must be shown to receive credit on quiz and exam problems.

FINAL EXAM: The time for the final exam is: 2:00 – 4:00pm on Wednesday December 13th. You are expected to arrange your schedule to allow you to take exams at their scheduled times.

WEEK	DATES	SECTIONS	TOPICS
1	Mon, Aug 21	I-1	What is Abstract Algebra? The Integers
	Wed, Aug 23	I-1, I-2	The Integers; Divisibility of Integers
	Fri, Aug 25	I-2, I-3	Divisibility of Integers; Greatest Common Divisors

Friday, August 25th: Drop/Add Deadline – 4:00p.m.

2	Mon, Aug 28	I-3, I-4	Greatest Common Divisors; Prime Factorization
	Wed, Aug 30	I-4, I-5	Prime Factorization; Equivalence Relations and \mathbb{Z}_n
	Fri, Sept 1	I-5	Equivalence Relations and \mathbb{Z}_n ; Quiz 1

Tuesday, September 5th: Pass/No Credit Deadline – 4:00p.m.

3	Mon, Sept 4	(no class)	Labor Day Holiday
	Wed, Sept 6	I-19	Symmetry;
	Fri, Sept 8	I-20	An Introduction to Groups
4	Mon, Sept 11	I-20, I-21	An Introduction to Groups; Integer Powers of Elements in a Group
	Wed, Sept 13	I-21, I-22	Integer Powers of Elements in a Group; Subgroups
	Fri, Sept 15	I-22	Subgroups; Quiz 2
5	Mon, Sept 18	I-23	Subgroups of Cyclic Groups
	Wed, Sept 20	I-23, I-25	Subgroups of Cyclic Groups; The Symmetric Groups
	Fri, Sept 22	I-25	The Symmetric Groups
6	Mon, Sept 25	I-26	Cosets and LaGrange’s Theorem
	Wed, Sept 27	I-26	Cosets and LaGrange’s Theorem
	Fri, Sept 29	I-27	Normal Subgroups and Quotient Groups; Quiz 3
7	Mon, Oct 2	I-27	Normal Subgroups and Quotient Groups
	Wed, Oct 4	I-29	Group Isomorphisms and Invariants
	Fri, Oct 6	I-29	Group Isomorphisms and Invariants
8	Mon, Oct 9	I-30	Homomorphisms and the Isomorphism Theorems
	Wed, Oct 11	I-30	Homomorphisms and the Isomorphism Theorems
	Fri, Oct 13	I-30	Homomorphisms and the Isomorphism Theorems; Quiz 4
9	Mon, Oct 16	I-31	The Fundamental Theorem of Finite Abelian Groups
	Wed, Oct 18	I-31;	The Fundamental Theorem of Finite Abelian Groups
	Fri, Oct 20	Review Exam 1	
10	Mon, Oct 23	I-6	Algebra in Other Number Systems
	Wed, Oct 25	I-6, I-7	Algebra in Other Number Systems; An Introduction to Rings
	Fri, Oct 27	I-7	An Introduction to Rings
11	Mon, Oct 30	I-8	Integer Multiples and Exponents
	Wed, Nov 1	I-8, I-9	Integer Multiples and Exponents; Subrings, Extensions, and Direct Sums
	Fri, Nov 3	I-9	Subrings, Extensions, and Direct Sums; Quiz 5
12	Mon, Nov 6	I-10	Isomorphism and Invariants
	Wed, Nov 8	I-10, I-11	Isomorphism and Invariants; Polynomial Rings
	Fri, Nov 10	(no classes)	Veteran’s Day Holiday

13	Mon, Nov 13	I-11	Polynomial Rings
	Wed, Nov 15	I-12	Divisibility in Polynomial Rings
	Fri, Nov 17	I-12, I-16	Divisibility in Polynomial Rings; Ideals and Homomorphisms; Quiz 6
14	Mon, Nov 20	I-16	Ideals and Homomorphisms

Monday, November 20th: Course Withdrawal Deadline – 4:00p.m.

No Classes: November 22nd – November 24th “Fall” (Thanksgiving) Break

15	Mon, Nov 27	I-16;	Ideals and Homomorphisms
		Review	
	Wed, Nov 29	Exam 2	
	Fri, Dec 1	Review	
16	Mon, Dec 4	Review	Take Home Portion of Final Exam Assigned
	Wed, Dec 6	(no classes)	Study Day

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