

Algebra

Spring 2025 tentative schedule

The following (preliminary) schedule serves as a guideline for the sections covered in the lecture.

Math UA 343 Section 005 Schedule		
Week	Date	Topic
1	*Wed, Jan 22nd	Sets and functions
2	Mon, Jan 27th Wed, Jan 29th	Sets and functions Introduction to groups: symmetries of a square, dihedral groups
3	*Mon, Feb 3rd *Wed, Feb 5th	What is a group? Subgroups and cyclic groups
4	Mon, Feb 10th Wed, Feb 12th	Subgroups and cyclic groups Permutations and symmetries
5	Mon, Feb 17th Tue, Feb 18th Wed, Feb 19th	— <i>Presidents' Day (no class)</i> — Permutations and symmetries — <i>Monday schedule</i> Odd and even permutations, the alternating group
6	Mon, Feb 24th Wed, Feb 26th	Odd and even permutations, the alternating group Cosets
7	Mon, Mar 3rd Wed, Mar 5th	Cosets Cayley's theorem, products, homomorphisms
8	Mon, Mar 10th Wed, Mar 12th	Cayley's theorem, products, homomorphisms Midterm exam
9	Mon, Mar 17th Wed, Mar 19th	Kernels and images, factor groups Kernels and images, factor groups
10	Mon, Mar 24th Wed, Mar 26th	— <i>Spring break</i> — — <i>Spring break</i> —
11	Mon, Mar 31st Wed, Apr 2nd	Isomorphism theorems, finite abelian groups Isomorphism theorems, finite abelian groups
12	Mon, Apr 7th Wed, Apr 9th	Rings Rings
13	Mon, Apr 14th Wed, Apr 16th	Ring homomorphisms and ideals Ring homomorphisms and ideals
14	Mon, Apr 21st Wed, Apr 23rd	Polynomials and polynomial rings Polynomials and polynomial rings
15	Mon, Apr 28th Wed, Apr 30th	Irreducible polynomials Irreducible polynomials and fields of fractions
16	Mon, May 5th	Review