

Math 590: Discrete Geometry
Fall 2026
Lecture Schedule

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Below is a list of the topics we intend to cover, along with a rough schedule. Actual schedule is subject to change without notice. Last updated January 20, 2026.

Week	Topic
1/21 – 1/23	Introduction and Roadmap
1/26 – 1/30	Preview of Polyhedral Geometry
	Generating Functions
2/2 – 2/6	Generating Functions
2/9 – 2/13	Generating Functions - Deep Cuts
2/16 – 2/20	Rational Generating Functions
	Quasipolynomials
2/23 – 2/27	The Bridge from Power Series to Geometry
	Polyhedral Geometry
*3/2 – 3/6	Polytopes, Polyhedra, and Cones
*3/9 – 3/13	Faces of Polyhedra
3/16 – 3/20	Face Lattice Combinatorics
3/23 – 3/27	Ehrhart Series of Polytopes
	Ehrhart Quasipolynomials
3/30 – 4/3	<i>Spring Break: No Classes</i>
4/6 – 4/10	Catch-up Week
4/13 – 4/17	Midterm Exam: Monday, April 13
	A Case Study: Stanley Nonnegativity
	Proving the Big Theorems
4/20 – 4/24	Triangulations
*4/27 – 5/1	A Proof of Ehrhart's Theorem
*5/4 – 5/6	A Proof of Ehrhart-Macdonald Reciprocity
5/11	Final Presentations: Monday, May 11