

## Algebraic Geometry

**Mondays and Thursdays from 12-1:20 in Hill 425**

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**Office hours** are Wednesdays from 1 to 2 pm, in HLL 230, and by appointment.

### Course topics:

**Text:** I'll use Joe Harris *Algebraic Geometry* to set the schedule, and a variety of other sources as well.

I'm planning 27 lectures with the following topics. I expect the timing and choice of topics will change slightly as the semester progresses.

date	Monday	Thursday
(09/05)	no class	varieties, part I
(09/09, 09/12)	varieties, part II	regular functions and maps, part I
(09/16, 09/19)	regular functions and maps, part II	cones, projections, products
(09/23, 09/26)	families and parameter spaces, part I	families and parameter spaces, part II
(09/30, 10/03)	ideals of varieties, part I	ideals of varieties, part II
(10/07, 10/10)	Grassmannians and related varieties, part I	Grassmannians and related varieties, part II
(10/14, 10/17)	rational functions and rational maps, part I	rational functions and rational maps, part II
(10/21, 10/24)	no class	algebraic groups, part I
(10/28, 10/31)	algebraic groups, part II	algebraic groups, part III
(11/04, 11/07)	dimension, part I	dimension, part II
(11/11, 11/14)	Hilbert polynomials and related topics part I	Hilbert polynomials and related topics part II
(11/18, 11/21)	smoothness and tangent spaces, part I	tangent spaces part II and degree, part I
(11/25, 11/28)	degree, part II	no class (Thanksgiving)
(12/02, 12/05)	moduli spaces, part I	moduli spaces, part II
(12/09)	moduli spaces, part III	

**Homework** Suggested problems will be given daily.