

Title: Introduction to Algebraic Geometry II

Course number: Math 80220

Instructor: Eric Riedl

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Office hours: TBA

Textbook: *Algebraic Geometry* by Robin Hartshorne

Course description: Algebraic geometry is an old branch of mathematics that still remains an active field of study today. With connections to number theory, complex geometry, commutative algebra, complex analysis, algebraic topology and more, algebraic geometry sits at the intersection of many different fields, and its study is useful in pursuit of many different fields of mathematics.

This course will be an introduction to algebraic geometry and the theory of schemes, the second half of a year-long sequence. This semester, we will cover some of chapters III and IV of Hartshorne, along with the notion of degree of varieties in projective space and some material from II.7-II.8 of Hartshorne. The main prerequisite for this course will be the previous semester of the course.

The course grade will be based on weekly homework.