

Math 506A—Modern Algebra

Spring 2025

MWF 10:30, PDL C-38

Instructor: Monty (or William) McGovern, PDL C-450, mcgovern@math.washington.edu

Office Hours: Th 9:30 and by appointment.

Text: *Abstract Algebra*, by Dummit and Foote (3d ed., Wiley, 2004) (recommended), together with other books (see below).

Prerequisite: Math 505, the equivalent, or instructor permission.

What to Expect: This is the third quarter of the first-year graduate algebra sequence. I will be covering commutative algebra and elementary algebraic geometry, following the treatment in Chapter 15 of Dummit and Foote, plus some supplementary material from Atiyah and MacDonald, Hartshorne's *Algebraic Geometry*, Fulton's book *Young Tableaux*, (discussed in the fall), and Eisenbud's *Commutative Algebra with a View to Algebraic Geometry*. Homework will be due every Friday and submitted on Gradescope. The course grade will be based 50% on homework and 50% on a final exam. I will post notes for all lectures on Canvas.