# Math 905 — Fall 2022

**Instructor**: Eloísa Grifo (please call me Eloísa) email course webpage

**Class times**: Mondays, Wednesdays, and Fridays 11:30 am – 12:20 pm in Oldfather Hall 304

**Office Hours**: Drop by my office anytime, or email me to set up a meeting if you like. You are most likely to find me on campus on Mondays, Wednesdays, and Fridays.

**Prerequisites.** Basic ring and module theory, such as the material in Math 817/818.

**Course Description.** This will be a first course in commutative algebra covering core topics in the field including noetherian rings, graded rings, localization, Nakayamas lemma, integral extensions, primary decomposition, Hilbert functions, and dimension theory.

**Textbook.** None. I will write course notes and post them on the course webpage.

**Course expectations.** This is an **in-person** class. Please **do not** attend class if you are feeling ill or have tested positive for covid-19. Otherwise, attendance is expected.

Your final grade will be calculated as follows:

(1) Midterm: 20%
(2) Final: 20%
(3) Quizzes: 10%
(4) Homework: 50%

You are encouraged to work on the problem sets together in groups, or discuss them with me; you should however write up your own solutions. The only other resources you are allowed to use to solve the problem sets are our class notes and the Macaulay2 documentation. The midterm and final exam will be take-home and look a lot like the problem sets, except you cannot collaborate on the problems nor use the class notes.

**Mask policy.** The university's current face covering policy can be found here.

**Inclement weather.** If in-person classes are canceled, you will be notified of the instructional continuity plan for this class by email.

**Other policies and resources.** Please read the University course policies and resources, which can be found here.