

Algebraic Topology

Math 629 aka 722

Fall, 2021

Tu/Thurs 1:30-2:45, Exploratory Hall 4106

Contact Info

Professor: Rebecca Goldin

Office: Exploratory Hall 4214

Office Hours: Tuesday 12:30-1:30pm and Fridays 10:00-11:00am. I appreciate a heads-up when you plan to come to office hours! I am usually here, but I might step out if I don't know in advance.

Prerequisite

This is a graduate level introductory course to algebraic topology. Students should be familiar with basic point set topology (MATH 631) and basic group theory (MATH 621). If you have had these courses at an undergraduate level, you may also take this course. This is a proof-based course, so students should be comfortable with writing extensive proofs.

Text

The text for this course is *Elements of Algebraic Topology* by James Munkres. A significant side resource is *Algebraic Topology* by Allen Hatcher, which is [available electronically](#) for free.

Course Content

We will roughly be covering material from Chapters 1-4 in *Elements*, with some omissions. Time permitting, we will cover some material in Chapter 5.

Test Dates

There is no midterm exam for this course. Problem sets are taken very seriously! The final exam will occur on Tuesday, December 14, 1:30-4:15pm.

Grading

The grade in this course will be based on problem sets and exams. Class attendance is not required, though if you skip class you will experience less leniency regarding late assignments or borderline grades. There will be one final exam and approximately twelve problem sets over the semester. The grade will be determined by:

30% First $n/2$ problem sets

40% Last $n/2$ problem sets

30% Final exam

where n is the number of problem sets.

Problem Sets

There will be weekly problem sets. Problem sets will not be accepted more than a week late.

Disability statement

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703.993.2474. All academic accommodations must be arranged through that office.

Honor Code

The University Honor Code is to be followed at all times. Sharing information of any kind about exams or quizzes is prohibited. Any violations will be sent to the Honor Committee and will result in a grade of zero.