

Syllabus: Topics in Algebra Math190 (Spring 2024)

George McNinch

2024-01-07

Abstract

Course Syllabus

Course Schedule & Format

- **Professor:** George McNinch <george.mcninch@tufts.edu>
- **Course online resources:**
 - [canvas page](#)
 - URL: <https://gmcninch-tufts.github.io/2024-Sp-Math190/>

The class meets on Mondays and Wednesdays.

Course Grading & Expectations

You should keep up with the posted material throughout the course!!

There will be *weekly problem sets*,

two *midterm reports*, and a *final report*. These will be collected at 24:00 (i.e. 12:00 midnight) on Sundays. You should expect to hand in **one** assignment each Sunday (**two** including your *engagement* submission; see below); during weeks in which there is midterm or final report due, there won't be a problem set assigned.

- There is no required textbook for the course.
- During the term, I will collect and mark 10 problem sets, 2 midterm course reports, and 1 final report.

Together with your *engagment score* your marks on these assignments will determine your score (and thus your grade) in the course, as indicated in this table:

Table 1: **Grading**

grade component	# of marks	score (points)	total points
problem sets	10	50 each	450 (drop one)
reports	3	100 each	300
engagement	1 (cumulative)	75 (total)	75

In summary, you will earn a score of up to 825 possible points. I will use that score to determine and assign **letter grades**.

The **engagement** score is intended to encourage participation in the weekly problem sets. Each week (excepting weeks in which a midterm report is due) you will submit a brief written document to gradescope – typically, a response to a prompt made in the problem sessions – and these submissions will determine your cumulative engagement score.

As indicated, I will drop one homework mark. Late problem sets and reports will be accepted, with a 20% point reduction for each day that assignment is late. Of course, if there are extenuating circumstances *let me know* and I will make an assessment.

There is a document on the course web site spelling out expectations and rubrics for course work.

Course resources

Important links for our course include:

- canvas.tufts.edu (the course's canvas site)
- [gradescope](#) (you'll submit work here for grading)

Enrollment in the course should automatically enroll you in the course's site on canvas. I'll use the canvas site for posting course announcements, announcing the zoom session times, and posting scores & grades.

The written content for the course will be distributed in the form of [jupyter notebooks](#). You can interact with these notebooks either by installing the requisite (open source) software on your computer, or using [Google's colab] (or both, of course...). The course web site has links to further discussion of:

- python & jupyter (including installation instructions, if desired)
- gradescope usage notes for our course

Problem sets and the midterm & final reports will be collected on [gradescope](#). So you must submit a PDF document of your homework solutions. I encourage you to learn enough LaTeX to typeset your homework solutions; the course web site has some suggestions that should help you get started.

Students are encouraged to regularly visit the Discussions forum for the course on Canvas.

StAAR Center (formerly Student Accessibility Services)

Tufts is committed to providing equal access and support to all qualified students through the provision of reasonable accommodations so that each student may fully participate in the Tufts experience.

Academic Support at the StAAR Center The StAAR Center (formerly the Academic Resource Center and Student Accessibility Services) offers a variety of resources to all students (both undergraduate and graduate) in the Schools of Arts and Science, Engineering, the SMFA and Fletcher; services are free to all enrolled students. Students may make an appointment to work on any writing-related project or assignment, attend subject tutoring in a variety of disciplines, or meet with an academic coach to hone fundamental academic skills like time management or overcoming procrastination. Students can make an appointment for any of these services by visiting go.tufts.edu/TutorFinder, or by visiting our website <https://students.tufts.edu/staar-center>.

Accommodations for Students with Disabilities Tufts University values the diversity of our students, staff, and faculty; recognizing the important contribution each student makes to our unique community. Tufts is committed to providing equal access and support to all qualified students through the provision of reasonable accommodations so that each student may fully participate in the Tufts experience. If you have a disability that requires reasonable accommodations, please contact the StAAR Center (formerly Student Accessibility Services) at StaarCenter@tufts.edu or 617-627-4539 to make an appointment with an accessibility representative to determine appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

Learning Objectives

This course intends to train students in their understanding of higher mathematics, as described in the [Math department's learning objectives](#)

In particular, the course should:

- contribute to a basic understanding of higher mathematics, by:
 - providing a working understanding of basic insights and methods, and
 - demonstrating the use of mathematics to think about problems outside of mathematics;
- contribute to facility with written communication of mathematics; and
- contribute to literacy in *scientific computing*.

Bibliography