

Syllabus for Math 441: Introductory Topology

Fall 2023

Course Information

Instructor: Sam Spiro.

Lectures: MW 3:50-5:10pm, Lucy Stone Hall B123.

Office Hours: Monday 11:30-12:30, Wednesday 2:00-3:00; both in Hill 207.

Website: samspiro.org

Textbook: *Topology* by Munkres (second edition). The textbook is required for completing the homework. We will cover all of Chapters 2-4 and have some bonus content at the end of the semester depending on the time available.

Thanksgiving Break: The lecture scheduled for 11/22 (i.e. the day before Thanksgiving) will be optional and not cover any new material that will be tested in any way. **Be Aware:** there will still homework due that day.

Attendance: Attendance is encouraged but entirely optional.

Communication

Email: My email address is sas703@scarletmail.rutgers.edu. However, *I do not check this often* (roughly once every 1-2 days), so plan accordingly.

Discord: An optional class Discord server has been set up for those that wish to use it, which will likely be the fastest way for you to get general information regarding the class. Information on how to join the server will be available on Canvas. To emphasize, when contacting me you should send an email **do not DM me** on Discord (I will completely ignore such messages).

Feedback: You are strongly encouraged to tell me which parts of the class are going well/poorly. You can tell me these things directly, or use [this link](#) to give me advice anonymously.

Class Participation: Active participation is a crucial element of this course. I will repeatedly select students at random to answer questions. **I do not care if you give correct answers** (in particular, wrong answers tell me what material I need to explain better!). You can always reply to my questions with “I don’t know” or “I wasn’t really paying attention”, at which point I will move on and ask another student.

Exams, Homeworks, and Grades

Exams: there will be one in-person midterm (held in class) and one in-person final exam. The information is as follows:

Midterm: October 25 (Week 8).

Final: December 18 4:00-7:00pm (Week 16).

Other things to note:

- Neither notes nor calculators will be allowed for the exam.
- You must bring your student ID to the exam.
- There are no makeup exams. If due to truly exceptional circumstances you must miss an exam, contact me as soon as possible.

Homework: There will be weekly homework assignments listed on the website samspiro.org which are due the following Wednesday by 11:00pm (late assignments will not be accepted) via Gradescope. Some important notes regarding homework:

- **No points** will be given to homework assignments that are difficult to read (e.g. due to poor quality scans, bad handwriting, or incoherent arguments). For those with bad handwriting (such as myself), it is strongly recommended you type your assignments, e.g. using Latex or Microsoft Word.
- You may use **any resource** at your disposal for homeworks (including fellow classmates, the internet, Chegg, etc) **provided you cite** whatever sources you use for the homework and you write your solutions by yourself and in your own words. To emphasize, these resources are **NOT** allowed for exams, only for homeworks.
- It is strongly recommended that you first try to solve the homeworks on your own before turning to other resources in order to maximize how much you understand the material before the exams.
- Your lowest homework grade will be dropped if you get at least one answer *wrong* during class.

Presentation: You may give an **optional** extra credit final presentation related to the course. The timeline for this is as follows:

- A topic must be chosen (with my approval) by 11/1/2023 (ideally sooner).
- After choosing the topic, you must send me an email at the end of each week saying what you did that week and what you hope to do next week (this may be as short as saying “I’m very busy right now so I did nothing this week and plan to do nothing next week”).

It is also strongly recommended that you meet with me periodically during office hours to make sure you're on the right path.

- You will give a practice run of the first 2 minutes of your talk on 11/22 (unless you plan to be away for Thanksgiving break, in which case you must schedule another time to do this).
- You will send me a draft of the slides for your full talk by 12/4, at which point I will give feedback.
- The presentations will take place during the last week of class 12/11 and 12/13. Presentations will be 10-20 minutes long depending on number of participants, and it is recommended presentations be done via powerpoint.

A few further remarks:

- Presenters will be required to watch [this video](#) before preparing their talks.
- It is your responsibility to stay on top of the deadlines outlined above, and students who fail to do so will not receive points.
- Topics are first come first serve, though it is possible for two people to give talks on two subtopics of the same main topic.
- A list of potential ideas for topics can be found [here](#), though you are welcome to chose any other topic that might be of interest. I'm happy to discuss one on one regarding which topic would be a good fit for you.

Grading: Your numerical grade will be computed as follows:

$$15\% \text{ Homework} + 35\% \max(\text{Midterm}, \text{Final}) + 50\% \text{ Final} + 5\% \text{ Presentation} .$$

Your letter grade will be based off of your numerical grade at the end of semester and the following scale. The scale is guaranteed, *but may be adjusted to be more generous* (for example, if your cumulative average is 80, then your final grade will be *at least* a B).

A	B+	B	C+	C
90	87	80	77	70