Math 6520, Algebraic Topology

Instructor: Sri Iyengar, JWB 202, iyengar@math.utah.edu

Class: 10:45 - 11:35 MWF; JWB 208

Office Hours: By appointment

Textbook: “Algebraic Topology” by Allen Hatcher. For myself, I will be looking into “Homotopical Topology” by Anatoly Fomenko and Dmitry Fuchs, and also “A concise course in Algebraic Topology” by Peter May.

Course Outline: This is a standard graduate course in algebraic topology, partly aimed to prepare students for the algebraic topology half of the department’s geometry/topology qualifying exam. I aim to cover chapters 0-3 of Hatcher’s book; time permitting, also bits of chapter 4.

Homework: Homework will be due every week and will generally be due on Fridays. Doing homework is essential to learning the material and preparing you for the exams. The grader will grade some, but not all, of the problems. Once you receive feedback for your homework, you will have one chance to resubmit the problems that were graded to be regraded. I will average the two homework scores. If you need extensions on homework, please let me know as early as possible. Keep in mind that getting an extension might mean that you have less time to resubmit problems for regrading. Your homework will be submitted through Gradescope.

Grades: Overall graded will be determined by homework (30%), a mid-term (30%), and the final exam (40%). The grading scale will not be the same for undergraduates and graduates, for this is a qual course.

An A in this class corresponds to a “high pass” for the qualifying exam, and a B+ or A- corresponds to a “pass” for the exam. You will have another chance to pass the qualifying exam about 4 weeks after the conclusion of this course.

Safety: The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message.
For more information regarding safety and to view available training resources, including helpful videos, visit safe.utah.edu.”

**Covid:** University leadership has urged all faculty, students, and staff to model the vaccination, testing, and masking behaviors we want to see in our campus community. These include:

- Vaccination
- Masking indoors
- If unvaccinated, getting weekly asymptomatic coronavirus testing
- Quarantining after exposure

**Vaccination**

- Get a COVID-19 vaccination and the booster shot recommended for pairing with your vaccine if you have not already done so. Vaccination is proving highly effective in preventing severe COVID-19 symptoms, hospitalization and death from coronavirus. Vaccination is the single best way to stop this COVID resurgence in its tracks.

- University of Utah students are required (as of August 27, 2021) to complete a cycle of COVID-19 vaccination and booster shot with an approved vaccine, or complete an exemption form. The university provides three convenient vaccination options:

**Masking**

- While masks are not required outside of Health Sciences facilities, on UTA buses or campus shuttles, CDC guidelines now call for everyone to wear face masks indoors.


With high transmission rates in Salt Lake County, the CDC recommends:

“Everyone should wear a mask in public indoor settings.

Treat masks like seasonal clothing (i.e., during community surges in COVID transmission, they should be worn indoors and in close groups outside).
In cases of classroom exposure, masks should be worn for the quarantine period (see details below).

**Testing**

Attend one of the regularly scheduled vaccine events at the Student Union on campus.

Schedule an appointment with Student Health here.

Visit http://mychart.med.utah.edu/, https://alert.utah.edu/covid/vaccine/, or http://vaccines.gov/ to schedule your vaccination

- If you are not yet vaccinated, get weekly asymptomatic coronavirus tests. This is a helpful way to protect yourself and those around you because asymptomatic individuals can unknowingly spread the coronavirus to others.

- Asymptomatic testing centers are open and convenient: Online scheduling

Saliva test (no nasal swabs)

Free to all students returning to campus (required for students in University housing)

Results often within 24 hours

Visit alert.utah.edu/covid/testing