

MATH 561—TOPOLOGY—FALL 2022-A. FREIRE

TR, 11:20—12:35, Ayres 121

Office hours (Ayres 325): W, 15:00—16:00, or by appointment.

1. Goal: Introductory course on Differential Topology at the graduate level. Intended both for students interested in research in Topology or Differential Geometry and for students in other areas who want to learn the foundations of the subject.
2. Prerequisite: Prior exposure to general topology (for example in a rigorous Advanced Calculus course, or a Topology/ metric spaces undergraduate course) i. It's a good idea to review sections 12 to 31 in Munkres' *Topology*. If you've never studied this material, consider taking M467 instead.
3. References and outline: please see the page with this title.
4. Method: lecture-based. Attendance to every lecture is expected. When possible, a list of sections in the references to will be given ahead of time, with lectures mainly summarizing the main results and proofs.
5. For the material discussed in a given lecture, plans for upcoming lectures and problem sets, please consult the "course log" on this web page. Canvas will not be the used.
6. GRADING: Based on problem sets, an in-class midterm, and a comprehensive final exam.
7. Office hours: if you need a hint for a problem, or some help to understand a proof.

DATES (28 lectures):

First Day: Thursday Aug. 25

Fall Break: Thursday Oct 6

Midterm: Tuesday Oct 11 (likely)

Thanksgiving: Thursday, Nov. 24

Last Day: Tuesday, Dec. 6

Final Exam: Friday, Dec. 9, 10:30—12:30

Other Geometry-Topology courses this fall:

M 467 (Plaut) TR, 11:20—12:35

M 661 (Bourni) TR, 12:55—14:10

M 667 (Langford) TR, 14:30—15:45

M 669 Seminar: W, 16:10—17:00