

MATH 561—TOPOLOGY—FALL 2020-A. FREIRE  
MWF 14:15—15:05, Ayres G003 (hybrid)  
Office hours: M,F 16:45—17:35 (online)

1. Goal. Introductory course on Topology at the graduate level, including General Topology and Fundamental Group. 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. Prerequisites: some prior exposure to basic topology (for example in a rigorous Advanced Calculus course). For instance, some idea of the definitions of metric space and completeness, topological space, open and closed sets, continuity will be assumed. If you've never seen this material, consider taking M467 instead (or concurrently.)
3. TEXT: *Topology*, by James Munkres. The goal is to go over the material in chapters 3, 4, 5 and 9, and selected sections from other chapters. A list of references will be given.
4. Method: this will be a participatory class, with emphasis on problem solving by the students. Students will be given a list of sections in the text to read ahead of time, with lectures just summarizing the main results and concentrating on discussion of problems (from problem sets posted in advance.)
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 primary means of communication, but will be used.
6. GRADING: based on course participation—students will be called upon to present problem solutions to the class. There will be a midterm and a final, with each problem on them having the same weight as one presented in class.
7. Office hours: if you need a hint for a problem, or some help to understand a proof.
8. This course is listed under "hybrid" delivery mode: we'll typically meet in person once a week, usually on Wednesday.
9. **COVID-19 related policies:**
  - a) please review the information, instructions and policies found here:  
<https://www.utk.edu/coronavirus/>
  - b) mask use is mandatory at all times, please see here:  
<https://www.utk.edu/coronavirus/guides/requirement-to-wear-face-coverings>
  - c) On the first day of classes I'll draw up a seating chart: please sit always at the same desk, when the class meets in person.
  - d) On days when the class meets in person, there will be a synchronous zoom meeting for students unable to come to class. This zoom session will be recorded, and I'll also post on the "course log" notes from every class (online or in person.)