

## M382E (59287): Algebraic Topology

**Professor:** Dan Freed, RLM 9.162.

**Lectures:** Tuesday, Thursday 11:00–12:15, RLM 9.166. I expect you to attend lectures *and take notes*.

**Office Hours:** For this week office hours will be today (Thursday) 12:30–1:30. Regular office hours will be announced after the course gets underway. Office hours are an important part of the course. I hope to see many of you there often.

**Texts:** I will use Allen Hatcher’s *Algebraic Topology* for much of the course. However, I will not follow it literally. *Hence I strongly suggest that you take notes during lectures*. I also recommend the book *Homology Theory* by Jim Vick.

**Class Website:** [www.ma.utexas.edu/~daf/M382E/](http://www.ma.utexas.edu/~daf/M382E/). I will post homeworks and readings there.

**Homework:** There are weekly homeworks due Tuesday at the beginning of class. I expect you to do the homeworks and they are an integral part of your grade. I urge you to immediately form study groups and to discuss the problems and lectures together. Office hours are a time that many of you will come by to discuss the problems (and the class in general). If enough show, then office hours can turn into larger problem sessions.

**Grades:** Your grade will be based on the homework.

**Seminars:** I encourage you to at least sample the weekly geometry and topology seminars. The main Geometry Seminar is Thursdays at 3:30. Speakers are mostly from outside UT Austin. They are encouraged to be expository during the first hour, and this usually makes that seminar more accessible. The Topology seminar is Monday at 2:00. There is a regular Geometry and String Theory seminar on Wednesdays at 12:00. Finally the internal GADGET lunch seminar, which is Tuesdays at 12:30, will this semester be a learning seminar on advanced topics in algebraic topology. Most seminars are in RLM 9.166. There are also “junior” seminars organized by graduate students in both geometry and topology. You shouldn’t expect to understand everything at a research seminar, or even in some cases to understand very much. But only by attending seminars will you learn about a field: its problems, techniques, style, priorities, personality and personalities, etc. *I cannot urge you strongly enough to sample all of our many departmental seminars*. These include regular seminars in topology, analysis, algebra and number theory, etc. They will provide a major part of your mathematical growth as a graduate student.