

## Math 5313: Geometric Topology, TR 10:30-11:45, in MSCS 509

**Professor:** Henry Segerman

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**Office Hours:** TBD, and whenever you can find me.

**Online Classroom (D2L) site:** <https://online.okstate.edu> (then log in and find our course, listed as MATH-5313-69459 - Geometric Topology).

**Textbooks:** *Algebraic Topology: An Introduction*, by William S. Massey, *Algebraic Topology*, by Allen Hatcher (freely available from <https://pi.math.cornell.edu/~hatcher/AT/AT.pdf>).

We will cover parts of the first five chapters of Massey (studying the fundamental group), and parts of chapters 2 and 3 of Hatcher (studying homology and cohomology groups). We may also look at chapter 1 of Hatcher and chapters 9 – 14 of *Topology: Second Edition* by James R. Munkres for some topics. There is considerable overlap between the texts. You are not required to have a copy of Munkres, but it may be useful for a different perspective. Be aware that there are some differences in notation and definitions between the three books.

**Grading:** Earning 90% guarantees an A for the semester, 80% a B, 70% a C, and 60% a D. I reserve the right to lower cutoffs based on my judgment of your understanding of the material. There will be two in-class midterms during the semester, each counting towards 20% of your grade. The final exam will count 30%. Homework will count for the remaining 30%.

**Coursework:** The two in-class midterms are tentatively scheduled for **Tuesday 25th September** and **Tuesday 6th November**. The final exam will be on **Thursday 13th December**, 10:00am–11:50am. Exams are closed book, closed notes. For each homework assignment, I will give a list of problems. I may grade only a selection of the problems. While you may (and should!) discuss general ideas with others in the class, it is expected that your homework is entirely your own work. Please staple your homework.

**Syllabus Attachment:**

<http://academicaffairs.okstate.edu/content/resources-students>.

**To do:**

- Go to <https://online.okstate.edu> to log on to the Online Classroom (Desire2Learn). After logging in, make sure that you can see Math 5313 in your list of courses. We will use D2L for additional course documents, e.g. homework assignments.