

Math 8307, Algebraic Topology
Spring 2009

Lecturer Tyler Lawson
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Office hours MW 12:00–1:00
Course website <http://www.math.umn.edu/~tlawson/8307/>

Objectives. This is the second half of a one-year course in modern algebraic topology. This is a subject whose methods have become widespread in mathematics, and has applications in number theory, algebraic geometry, differential geometry, K-theory, and many others.

The second semester covers homotopy theory, including the Hurewicz theorem, Whitehead theorem, Blakers-Massey excision theorem, as

Prerequisites. The official prerequisite for this course is Math 8306 or an equivalent. I'll assume some basic knowledge about the fundamental group.

Class time. The lectures for this course are MWF from 1:25 pm to 2:15 pm in Vincent Hall 2.

Textbook. The text for this course is *Algebraic Topology*, by Allen Hatcher. There is a free version of this text available online as well as lists of corrections.

<http://www.math.cornell.edu/~hatcher/AT/ATpage.html>

Students looking for a different perspective might look into May's "A Concise Course in Algebraic Topology," also available online.

www.math.uchicago.edu/~may/CONCISE/ConciseRevised.pdf

Homework. There will be weekly problem sets to be handed in during class each Wednesday. The first problem set is due *Wednesday, January 28*. Your lowest problem set score will be dropped from your final grade.

Homework will be posted online on the course webpage.

Late homework will be docked by 15% per day (or portion thereof) up to a

maximum of 45%, unless you have made prior arrangements.

Collaboration and cheating. You are allowed (and encouraged) to work with other students while trying to understand the homework problems. However, the homework that you hand in should be your work alone.

Exams. There will be none.

Office hours. Official office hours are Monday and Wednesday for questions about the course material or algebraic topology in general. If you have more immediate concerns or cannot come during ordinary office hours, feel free to contact me by email or in person.