

**Math 592**  
**An Introduction to Algebraic Topology**  
WINTER 2009

**Instructor:** Prof. Peter Scott, 3842 East Hall, 764-0377  
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**Time and Location:** MWF 10-11, Room 3088 East Hall.

	Monday	1:10 - 2:00
<b>Office Hours:</b>	Wednesday	11:10 - 12:00
	Friday	9:10 - 10:00

**Recommended Textbooks:**

Algebraic Topology, by Allen Hatcher, published by Cambridge University Press, is the book I recommend. It covers the entire course. If you need an alternative, I suggest Topology, a First Course, by James R. Munkres, published by Prentice-Hall and Elements of Algebraic Topology, by James R. Munkres, published by Addison-Wesley.

A nice book on the fundamental group, but it does not cover everything needed, is Algebraic Topology, by W. S. Massey.

**Material:** The course will cover Chapters 0, 1 and 2 of Hatcher. This corresponds to Chapter 8 of the first Munkres book, plus Chapters 1-4 of the Munkres book on algebraic topology.

**Grading:** There will be regular weekly homework, a midterm exam and a final. They will count toward the grade as follows.

Homework	30%
Midterm Exam	30%
Final Exam	40%

**Exams:** The final exam is on Tuesday, 28 April, 1:30 pm-3:30 pm. It will take place in the regular classroom. It is important that you check your exam schedule now for possible clashes or other problems.

The midterm exam will be arranged later, and will also be a two hour exam.

**Homework**

The purpose of written homework in this course is twofold. One part is to test your understanding of the mathematics in the course, and the other is to test your skill in communicating mathematics. Don't think of your homework paper as a certificate proving that you have done the assignment. Think of it as an exercise in learning and in reporting what you have learned. There is a lot of truth in the statement "If you can't explain it, you don't understand it!". Imagine that you are explaining your solutions to someone who needs help, perhaps a classmate who has been sick. Start at the beginning and be clear, logical and complete. The ultimate test of what you write is this: can someone learn from your paper? Easily? Remember, the reader will see only what you wrote, not what you meant to say. So it must all be there, and be accurate. Make your paper reader friendly. We will talk more about this in class.