

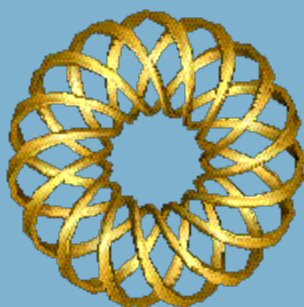


MAT 530 TOPOLOGY/GEOMETRY

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Stony Brook - Fall 2000

- INSTRUCTOR:



André de Carvalho

Math Tower 4-103

tel. 632-8266

E-mail: andre@math.sunysb.edu

- OFFICE HOURS:

Tuesdays and Thursdays 1 to 2pm and by appointment.

- TEXT:

Topology: Second Edition by James R. Munkres, Prentice-Hall, 2000.

This text is required for the course. In addition there are two books on reserve at the Math-Physics Library, which are worth examining:

- *Topology* by Hocking and Young.
- *An Introduction to Algebraic Topology* by A. Wallace.

- COURSE DESCRIPTION:

This course is an introduction to Topology, a subject which had its beginnings in questions in Analysis in the late 19th century. It has since become a central and important part of mathematics, with strong ties to most branches of mathematics.

About 2/3 of this semester will be concerned with foundations, namely point-set topology.

Given this underpinning, we then move on to the beginning aspects of algebraic topology.

- SYLLABUS:

Students will be assumed to be familiar with the main aspects of Chapter 1. Most of Chapters 2 through 8 of the text will be covered, except Chapter 5 (covered only briefly), and Chapter 6 (not at all). This comprises the point-set part of the course. We then move on to algebraic topology with the study of the fundamental group and covering spaces (Chapters 9 and 13), the Seifert-van Kampen Theorem (Chapter 11) and the classification of surfaces (Chapter 12). A rough, hopefully not too optimistic timetable is:

Ch. 2	2 weeks
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Ch. 3	1½ weeks
Ch. 4	2 weeks
Ch. 5	½ week
Ch. 7	1 week
Ch. 8	½ week
Ch. 9	2 weeks
Ch. 13	1½ weeks
Ch. 11	1½ weeks
Ch. 12	1½ weeks

- **HOMEWORK:**

Homework exercises from the text will be assigned approximately weekly, and due the following week.

- **EXAMS:**

There will be one Midterm Exam, near the middle of the semester (right after we cover Ch. 8), during lecture time.

The Final exam is scheduled for Thursday, December 21, 8:00 - 10:30 am.

- **GRADES:**

The homework and the midterm will represent each 30% of your grade, and the Final Exam 40%.

- **SPECIAL NEEDS:**

If you have a physical, psychological, medical or learning disability that may impact on your ability to carry on assigned course work, please contact the staff in the [Disabled Student Services](#) office (DSS), Room 133 Humanities, 632-6748/TDD. DSS will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential.