

Math 5801 – Autumn 2012  
General Topology and Knot Theory

**Instructor:**

Nathan Broaddus

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**Phone:** 614-292-0605

**Office Hours:** MW 2:50–3:50PM in MW650

**Meeting times and locations:**

MWF 1:50PM–1:45PM in CC 0240

**Course webpage:**

<http://www.math.osu.edu/~broaddus.9/5801>

**Textbook:**

J. R. Munkres, *Topology (2nd Edition)*, Prentice Hall, Englewood Cliffs, NJ, 2000.

ISBN-10: 0131816292

**About this course:**

Welcome to Math 5801! The subject matter for this course is topology which is an essential part of standard math literacy. Topology is the foundation upon which the investigation of the mathematical notion of “space” is developed. Later in the course we will investigate knots from a mathematical point of view.

**Topics :**

During the course of this semester we will cover the following topics (assuming sufficient time):

1. Set Theory
2. Topological Spaces
3. Compactness
4. Separation Axioms
5. The Tychonoff Theorem
6. Metrization
7. The Fundamental Group
8. Knot Theory

**Grading:**

Your grade will be computed using the follows weights:

- 40% Final exam – 4:00pm-5:45pm Monday December 10
- 20% Midterm 1 – Friday September 28
- 20% Midterm 2 – Friday November 9
- 20% Homework

Your grades will be recorded on Carmen and your final grade will be curved. Consequently, it is impossible to give *a priori* a precise course-total-to-letter-grade correspondence.

### **Important Dates**

Your grade will be computed using the follows weights:

- Friday September 14, Last day to drop a Full Semester course without receiving a “W.”
- Friday September 28, Midterm 1
- Friday November 9, Midterm 2
- Monday December 10, Final Exam 4:00pm-5:45pm

### **Homework:**

Homework will be announced during the lecture and is **due Mondays at the beginning of class. No late homework will be accepted!** If you cannot make it to class be sure to make arrangements for a classmate to hand in your homework for you. Your lowest homework grade will be dropped. It is your responsibility to keep up with the assignments.

### **Working Together:**

You are encouraged to work together on homework assignments. In fact it is a very good idea to find someone a classmate to work with on a regular basis. However, you should write up your homework solutions separately.

### **Help:**

If you are having trouble in the class you can

1. ask lots of questions in class (this is my favorite option)
2. come to my office hours (MW 2:50-3:50 in MW650)
3. make an appointment with me for another time

Don't let yourself fall behind. This class moves very quickly.

### **Calculators and other electronic devices:**

Calculators, smart phones, computers, tablets and other electronic computation devices are not allowed during quizzes and exams. You are encouraged to do further research on your homework online, but you should not consult online solutions for homework that you have not handed in or hope to have graded in the future.

### **Disability Statement:**

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone (614) 292-3307 and VRS (614) 429-1334; webpage <http://www.ods.ohio-state.edu>.

### **Academic Misconduct Statement:**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term academic misconduct includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee. For additional information, see the Code of Student Conduct: <http://studentaffairs.osu.edu/resource/csc.asp>