Math 501: General Topology I. Spring 2018

Course Information

Instructor: Dr. Erwin Miña-Díaz  
Office: Hume Hall 317  
Office hours: M. W. 1:00-2:00 PM

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Time/Place: T. TH. 2:30-3:45 PM, Hume Hall 331

Course description

This course is an introduction to the theory of topological spaces (point set topology). We will cover the following topics: basic topological concepts (e.g. open and closed sets, closure, limit points, interior, boundary, convergence, metric spaces, uniform convergence, completeness), subspaces and product spaces, the Hausdorff condition, connected spaces, compact spaces, sequential compactness. We will cover the most important aspects of Chapters 2 to 4. Familiarity with elementary set theory, including functions and cardinality, is a prerequisite for the course.

Course learning objectives

The aim of the course is to teach the student the language and concepts of point set topology, which are so fundamental and universal in analysis, geometry and other branches of modern mathematics. It will provide the student with a more abstract and unifying understanding of the idea of proximity and continuity. The course is proof based and thus will strengthen the student’s logical reasoning and proof making skills.

Course expectations

Since this is a 500 level course, there are different expectations for undergraduate and graduate students enrolled in the course. The difference will be in the content of the homework and tests, which for undergraduate students will be less demanding than for graduate students.

Tests and final exam

There will be two tests (each 100 points) and a final exam (200 pts).

Test 1: Thursday, February 22.

Test 2: Thursday, April 5.

Final: Tuesday, May 8 at 4:00 PM.

Your grade will be determined according to the following scale:

A 94- 100%  
A- 90- 93%  
B+ 87-89%  
B 84- 86%  
B- 80- 83%  
C+ 77 - 79%

C 70- 76%  
D 60 - 69%  
F below 60%

An “I” grade will not be given without the permission of the Department of Mathematics.

Deadlines

Friday, February 2 is the last day to register or add classes and the refund period ends. Friday, March 2 is the deadline for course withdrawals. After the course withdrawal deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the academic dean; dropping a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student is changing his/her major.

Attendance, cheating, and academic needs

- Attendance is mandatory.
- Cheating on any exam, theft or attempted theft of exam questions, possession of exam questions prior to the time for examination, shall all be offenses subject to appropriate penalties.
- It is the responsibility of any student with a disability who requests an accommodation to contact the Office of Student Disability Services (915-7128).