

Course Syllabus

Course Information

Course Number, Section: 80397 / 008695, MATH4341.001.23F

Course Title: Topology

Term: Fall 2023, Monday 08/21 (class begins) -- Wednesday 12/06 (class ends)

Class location: ECSW 3.210

Professor Contact Information

Professor: Dr. Anh Tran

Office Phone: (972)883-6587

Office Location: FO 3.704F

Email Address: att140830@utdallas.edu

Office Hours: MW 10:00 – 10:50 am, or by appointment

Teaching Assistant/Grader Contact Information

Teaching Assistant/Grader: Arnaja Mitra

Email Address: axm190028@utdallas.edu

Class Materials

Lecture notes will be posted on eLearning MATH 4341.001.

Solutions for homework assignments will be posted on eLearning.

The instructor will provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course; however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Pre-requisite: (MATH 2451 or MATH 3351) and MATH 3310

Co-requisite: None

Course Description

This is a course in point-set topology, with excursions into algebraic topology as time permits. Topology is the study of continuous functions, limits, and associated notions. Roughly speaking, it considers those aspects of shape which do not rely on geometry. Topics covered: set theory, topological spaces, continuous functions, connectedness, compactness, completeness, separation axioms, and metric spaces; other topics in algebraic topology as time permits.

Student Learning Objectives/Outcomes

At the end of this course, you should be able to

1. write proofs,
2. define and explain fundamental topological notions,
3. reason about topological objects and continuous functions,

4. state and apply the fundamental theorems of point-set topology.

Required Textbooks and Materials

Topology (2nd edition) by James Munkres.

Suggested Textbook: Elementary Topology -- Problem Textbook (published by the American Mathematical Society) by O. Viro, O. Ivanov, N. Netsvetaev, V. Kharlamov.

Assignments & Academic Calendar

Chapters: 1, 2, 3, 4 of Munkres' textbook (with additional topics in algebraic topology as time permits).

Homework: Homework assignments will be given on a regular basis. Each of them is going to have a specific deadline. Students are expected to work on each assignment individually and submit it on eLearning MATH 4341.001 by the specific deadline. Students are strongly encouraged to work more than the class assignments.

Midterm Exams (two): Wednesday, September 27, 8:30 – 9:45 AM and Wednesday, November 01, 8:30 – 9:45 AM.

Final Exam: TBA (Location: TBA).

All students are expected to take the examinations at the announced time. Students are required to inform the instructor of suspected honor code violations. Show all details of your work for each problem you solve during exams (unsupported answers will receive little or no credit).

Important dates: 09/06: Last day to drop a class without a W

11/07: Last day to withdraw with an automatic W

Grading Policy

5%: Class attendance

15%: Homework assignments (The worst one will be dropped.)

50%: Two Midterm exams (25% for each midterm exam)

30%: Final exam

Grade Scale

[95,100] → A+	[90,95) → A	[85,90) → A--	
[80,85) → B+	[75,80) → B	[70,75) → B--	
[65,70) → C+	[60,65) → C	[55,60) → C--	
[50,55) → D+	[45,50) → D	[40,45) → D--	[0,40) → F

Class attendance is mandatory. Students attending less than 50% of the lectures will automatically receive an F.

Course & Instructor Policies

Assignments and Late Work: Any assignment will have a specific deadline. Failure to meet the deadline will result in a 25% reduction per each 6 hours late, of the point value for the assignment.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.