Syllabus for MTH 531/631: Topology I

University of Miami, Spring 2022

www.math.miami.edu/~cscaduto/teaching/531-fall-2022/

Instructor:
Prof. Christopher Scaduto
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Office: Ungar 525
Office hours: Tues/Thurs 11:30-12:30, or by appointment

- Class time and location: Tuesday and Thurday at 12:30-1:45 PM, Ungar 411

References:
Topology (2nd ed) by James Munkres
Other references may be mentioned throughout the course.

Description:
Topology is roughly the rigorous study of spaces, where "space" can mean a geometric shape, some abstract arrangement of objects, or the universe we live in. The subject focuses on the *continuity* properties of such spaces, and how they are related to one another by continuous deformations. Specific topics covered include: set theory, topological spaces, compactness, connectedness, separation properties, quotient spaces, Tychonoff Theorem, compactification, Urysohn Lemma, Tietze Extension Theorem, function spaces. Other fun topics will be included time-permitting.

Homework:
I will assign some homework problems. The problems will be listed on the course webpage. Your lowest homework grade will be dropped. Collaborating with your peers on homework assignments is permitted, but your solutions must be written up in your own words; identical homeworks will not receive credit. No late homework will be accepted.

Exams:
There will be two midterms and a final exam.

Grading:
Homework is 25 % and each exam is 25 %.

Standard university policies are assumed for this course. See for example
https://bulletin.miami.edu/general-university-information/graduate-policies-and-procedures/academic-policies/