Syllabus for MTH 531/631: Topology I

University of Miami, Fall 2021

`www.math.miami.edu/~cscaduto/teaching/531-fall-2021/`

Instructor:
Prof. Christopher Scaduto
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Office: Ungar 525
Office hours: Monday 11:00 am – 12:30 pm, or by appointment

⧫   Class time and location: 3:30–4:45 Mon & Wed,   Dooley Memorial 209

References:
Topology (2nd Edition) by James Munkres.

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:
Each week 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 three in-class exams (including the final exam).

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

Standard university policies, including ones related to Covid-19, are assumed for this course. See `https://coronavirus.miami.edu/information-for/faculty-and-researchers/index.html` for details. Masks and distancing are required in the classroom.