

## MATH 342: TOPOLOGY

Instructor: John Lind  
Office: Library 390  
Office Hours: M 15:00–16:30, W 13:30–15:00; also by appointment  
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Class meeting: MWF 10:00–10:50 Library 389

This course is an introduction to topology: the study of properties that persist under continuous deformation. The course begins with a thorough treatment of the fundamental properties of topological spaces and continuous maps, emphasizing examples old and new. We will study compactness, separation axioms, and basic topological constructions from the categorical point of view. The second portion of the course will develop the beginnings of algebraic topology: covering spaces, the fundamental group, and (if time permits) the basic ideas of homology.

*Text.* “Introduction to Topological Manifolds,” John M. Lee, Springer, 2nd edition (2011) [ISBN: 978-1441979391]. Available in the bookstore and on reserve at the library.

*Assignments, Exams.* There will be weekly homework assignments, one midterm exam, and one final exam.

I expect you to comport yourself with honor, as derived from respect for the academic program, your peers and your instructors. Collaboration is an important part of the mathematical life, and I encourage you to talk to your peers and work on problems together. Your homework is a reflection of your own understanding of the material and should be written entirely by you, in your own words, with proper attribution of your collaborators at the beginning. I consider copied homework to be an honor principle violation.