

Math 60330: Basic Geometry & Topology, Fall 2025

Instructor: Prof. Andrew Putman

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Webpage: <http://www.nd.edu/~andyp/teaching/2025FallMath60330/>

Class Hours: TTh 11:00-12:15

Classroom: DeBartolo 241

Office Hours: Just stop by if my door is open!

Topics: The main topics of this course are smooth manifolds, covering spaces, and the fundamental group.

Suggested Texts: For smooth manifolds part of the course, I will roughly follow Milnor's book *Topology from the Differential Viewpoint*. Another good book with a similar point of view is Guillemin–Pollack's book *Differential Topology*. For the covering spaces and fundamental group part of the class, I will follow a book I am in the process of writing that will be posted to the course website. Another good book with a somewhat different point of view is *Algebraic Topology* by Hatcher, available for free at

<http://www.math.cornell.edu/~hatcher/AT/ATpage.html>

Homework: Homework will be assigned every Thursday and will be due the following Thursday by 5pm in my office (slide it under my door if I am not there). It will be posted to the course webpage by Thursday evening. Collaboration is encouraged, but each student must independently write up his/her own solutions. Late homework is never accepted, but the lowest homework grade is dropped.

Homework Grading: Your homework will be mostly graded on completeness, though I might occasionally read through a problem or two.

Exams: There will be one midterm exam and one final exam. The date of the midterm will be announced the second week of classes.

Grading:

25% Homework

35% Midterm

40% Final