Math 80430: 3-manifolds, fall 2021

Instructor: Prof. Andrew Putman Email: andyp@nd.edu Webpage: http://www.nd.edu/~andyp/teaching/2021FallMath80430/ Class Hours: MW 11:00-12:15 Classroom: Pasquerilla Center 105 Office Hours: whenever I'm around!

Topics: This course will cover the topology of 3-manifolds, interpreted broadly. No background beyond the standard first-year graduate material will be assumed. The focus will be on techniques that are useful elsewhere (especially in group theory), as well as examples. One major goal will be to carefully explain the motivation for and statement of Thurston's Geometrization Conjecture, as proved by Perelman. Other topics will depend on the interests of the audience.

Text: I won't follow a textbook, but I'll post references to the course website as we go.

Grading: To get an A in the class, you should show up to the lectures and also act as the "scribe" for 2-3 of them (depending on enrollment). The scribe should prepare good lecture notes for that lecture that I can post on the course website. There is a sign-up sheet on the website for scribe duties.