



The Graduate Center of CUNY
Ph.D. Program in
Mathematics Course Syllabus
Spring 2017

Course Title: Topology I

Course #: Math 70800

Time and Location: Tuesday & Thursday 10 - 11:30 am, Room TBA

Instructor Name: Abhijit Champanerkar

Contact Information: abhijit@math.csi.cuny.edu

Pre-Requisites: _____

Office Hours: Thursday 11:30 am - 1 pm

Description:

This is the second part of the graduate Topology sequence. We will learn techniques and applications of Algebraic topology to study topological spaces. Topics covered will include Simplicial & Singular Homology, Homotopy Invariance, Exact Sequences and Excision, Cellular homology, Homology with Coefficients, Axioms for Homology, Cohomology of Spaces, Cup Products, Poincare Duality and Products. We will cover additional topics if time permits. In addition to rigorous proofs, we will do lots of examples and computations.

Text Book: Algebraic Topology by Allen Hatcher, Cambridge University Press, ISBN 0-521-79540. We will cover Chapters 2, 3 and some additional topics at the end of each chapters.

Course homepage: <http://www.math.csi.cuny.edu/abhijit/70800/>