# Syllabus for Topics in Topology: Geometric Group Theory
# Math 601B, Section 1
# Spring 2010

**Professor:** Diane Vavrichek
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**Office:** 2239 Library North
**Office hours:** By appointment
**Course meetings:** MWF 2:20-3:20 in LN 2201
**Course website:** linked to from www.math.binghamton.edu/vavrichek/

**Course content:** This course will be an introduction to various important topics in geometric group theory. Topics covered will include group actions, groups as metric spaces, group splittings and accessibility, CAT(0) spaces and groups, Gromov hyperbolic spaces and groups. If time permits, I will introduce other topics as well.

**Grading:** Grades will be based on homework assignments and attendance. Students currently working on their dissertations may speak with me about giving a talk for the class instead of turning in the homework assignments.

**Optional text:** I will use *Metric Spaces of Nonpositive Curvature*, by Bridson and Haefliger, as a reference for CAT(0) and Gromov hyperbolic spaces and groups. One copy of this will be on reserve at the library.

**Prerequisites:** 500-level course on group theory and Math 513 or equivalent.

**Learning Objectives:** Students should become familiar with some of the fundamental topics and techniques in geometric group theory.