# Syllabus for Math 227C:
# Geometric Group Theory
### Spring 2005

**Instructor:** Jon McCammond
**Office hours:** T 1:00-1:50, Th 12:00-1:50 or by appointment in South Hall 6711
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**Course Home Page:**
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**Course description:** Math 227C is a topics course in topology, broadly defined. The topic changes from quarter to quarter. The course this spring will focus on the foundations of geometric group theory. If you know what a group presentation is—and have mastered the material in Math 221B Homotopy Theory—then you satisfy the only prerequisites for the course.

The first part of the course will cover metrics on groups, Dehn's word problem, basic hyperbolic geometry and Gromov's hyperbolic groups. The second part will focus on boundaries, ends, splittings, amalgamations, actions on trees, quasiconvexity and the most prominent examples of bizarre groups in what some people like to call the "zoo of groups". If time allows, one more advanced topic will be touched upon at the end the course.

**Grading:** Your grade will primarily determined by attendance, participation, and the extent to which you complete the various short assignments given out during the course. As befits a second-year graduate course, the primary focus will be on the material itself rather than the grading.

**Make-ups:** Make-ups for exams and quizzes will only be given with documented University-approved excuses (see University Regulations).

**ADA:** Students with disabilities can get assistance from the Office of Services for Students with Disabilities (845-1637). I'm happy to work with them and you.