Syllabus for Math 227C:
Geometric Group Theory
Spring 2005

Instructor: Jon McCammond
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Course description: Math 227C is a topics course in topology, broadly de-
fined. 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 Homo-
topy Theory—then you satisfy the only prerequisites for the course.
The first part of the course will cover metrics on groups, Dehn’s word prob-
lem, 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 docu-
mented 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.

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