MATH 442, Spring 2005

Algebraic Topology

Instructor: Paul Goerss Lunt 206, office phone 491-8544.
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Office hours: Most afternoons

Course Time: MWF Lunt 104 at 3PM
Text: Hatcher *Algebraic Topology*
The two-quarter course covers essentially Chaps 2 – 4, with supplementary material. The first quarter will cover the following topics:

1. Cup and cross products; the cohomology of projective space
2. Orientations for manifolds
3. Poincare duality and applications
4. Vector bundles and the Thom Isomorphism
5. Mayer-Vietoris and examples
6. Cohomology of Grassmannians; characteristic classes.

Homework: Homework will be collected roughly every other week, starting with April 11. We may use some homework as a basis for discussion in class.

The Evaluation Component – Grades: In addition to the homework there will be a final exam at the regular exam time. The homework and the exam will have equal weight in the final grade.