

Syllabus for Math 221C: Differential Topology

Spring 2006

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Course Home Page:

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Text: *Differential Topology* by Guillemin and Pollack, Prentice-Hall (Required).

Topology from a differentiable viewpoint by Milnor, Princeton (Recommended).

Course description: (4 units) Math 221C is the third quarter of the first year topology sequence. It covers such topics as topological manifolds, differential manifolds, transversality, tangent bundles, the Borsuk-Ulam theorem, orientation and intersection number, the Lefschetz fixed point theorem, and vector fields.

Grading: The plan is to cover all of, or at least as much of, Guillemin-Pollack's text as possible in one quarter. Extensive homework assignments will be given. These will be the basis for essentially one-third of your final grade. The other two-thirds will be determined by a midterm and a final exam. The weights of each of these are as follows.

| Homework | Midterm | Final | Participation |
|----------|---------|-------|---------------|
| 30% | 30% | 30% | 10% |

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.

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