

**Syllabus for MTH G222:
Geometry 2
Spring 2006**

INSTRUCTOR: Peter Topalov

TEXT: Warner, *Foundations of Differentiable Manifolds and Lie Groups*

PREREQUISITE: MTH G122, Geometry 1, or its equivalent

COURSE DESCRIPTION: We will cover Chapters 3, 5, and 6 from Warner's book. The topics are Lie groups and their Lie algebras, sheaf cohomology, including de Rham cohomology, and Hodge Theory.

GRADING: There will be problem sets assigned every week or two. It is intended that students work on the problem sets together, in order to come up with ideas, but each student must write up their own answers to turn in (i.e., I do not want to see people turn in essentially identical proofs for every problem.)