INTRODUCTION TO DIFFERENTIABLE MANIFOLDS **MATH 536** Section 001

Fall 2005 TTH 11:00-12:15 rm 422 Hum

Instructor: Charles Boyer Office Hours: TTh 9:30-11:00; Other times by appointment.
Office: 449 Humanities Phone: 277-4703
email: cboyer@math.unm.edu webpage: http://www.math.unm.edu/∼cboyer/

Required Text: John Lee *Introduction to Smooth Manifolds*

About the Course:

Manifold theory, with its emphasis on global geometry, has become much more important in many branches of both pure and applied mathematics in the last quarter of a century. It is the backbone of any further study in differential geometry, and it has now reached the status of being a standard course in the graduate curriculum. Thus, the purpose of this course is to provide the student with the foundations for the study of modern differential geometry. It is assumed that the student has a basic understanding of linear algebra, group theory, advanced calculus, and some point set topology. I will review some basic topological notions as we need them in the course.

I hope to be able to cover the material in Lee's book up through Stokes Theorem on manifolds. I also have some old typed notes part of which I may distribute as supplemental reading.

Grading Policy: I will make periodic homework assignments which will be announced in class and posted on my webpage. Grades for the class will be based on these homework assignments and class participation.

Qualified students with disabilities needing appropriate academic adjustments should contact me as soon as possible to ensure your needs are met in a timely manner. Handouts are available in alternative accessible formats upon request.