

Course Announcement

Department of Mathematics

MTG 5376 - Differential Geometry of Curves and Surfaces

Spring 2004

This graduate course on Differential Geometry is aimed at a broad audience of mathematics, science, and engineering students. The primary focus will be on the study of the geometry of curves and surfaces in 3D space, with additional topics in the theory of abstract surfaces. There is an ever-expanding frontier of science and engineering where geometric methods are becoming increasingly important and influential. This course will



cover classical material that will prepare students for more advanced studies, and to apply the techniques of differential geometry to a wide range of modern problems arising in areas such as computer vision, medical imaging, pattern analysis, geometric data mining, and molecular biology. With this goal in mind, in addition to the mathematical treatment, students will be encouraged to take a hands-on approach and explore the subject from a computational and algorithmic viewpoint.

Instructor: W. Mio

Textbook: *Differential Geometry of Curves and Surfaces*, by Manfredo do Carmo, Prentice Hall, 1976, ISBN: 0132125897.

Prerequisites: Multivariable calculus and a basic knowledge of linear algebra.

Time and Room: TR 9:30-10:45 AM, 104 LOV.

For more details, please contact the instructor at <u>mio@math.fsu.edu</u>, or 644-5596.

URL: http://www.math.fsu.edu/~mio/courses/courses.html