

Course Syllabus
MA 502: Spatial Visualization, Shape and Measurement
Summer 2006

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Textbook: Modern Geometry by David Thomas

Course description:

This course examines historical and philosophical foundations of mathematics and their relationships to measurement, Euclidean and non-Euclidean geometries, analytical geometry, trigonometry, transformations, shape and dimension, and applications.

Objectives:

This course will deepen students' understanding of the mathematical foundations of different geometries. Students will explore the role of visualization, shape, and measurement in relation to understanding, describing, and solving problems encountered throughout history, and they will become more aware of connections between topics studied in this course and topics taught in the elementary and secondary curriculum.

Instructional Methods and Activities:

I will run the class as a seminar. While I will spend time on discussing certain topics, you are expected to actively participate in the development and study of the course content. One main goal is to provide you with opportunities to learn to construct both theoretical and practical mathematical skills as they relate to the content of the course.

Course Requirements:

Homework assignments	100 pts
Participation	100 pts
Midterm Examination	100 pts
Final Examination	100 pts

Evaluation:

100 – 90	A
90 – 80	B
80 – 70	C
70 – 60	D
Below 60	F