

**WEBSTER UNIVERSITY**

**COURSE SYLLABUS**

**MTHC 5250.01**

**Andrea Rothbart**

**Vector Geometry**

**Summer 2006**

**1. Course Description**

This course is designed for high school and community college math teachers. Theorems from Euclidean Geometry are proved using both a vector approach and an analytic approach. These approaches are compared to the synthetic approach. Also examined is the impact of  $2 \times 2$  matrices as functions on vectors in the plane. Prerequisite knowledge: Trigonometry and high school Geometry.

**2. Learning Outcomes**

The student will develop a deeper understanding and broader perspective of high school geometry as well as functions on the plane.

**3. Resources: There is no textbook. Materials will be distributed by the instructor**

**4. Course Evaluation: Based on homework, quizzes and class participation.**

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