

Name of Course: Math 085; Plane Geometry.

Name of Instructor: Mr. Mike Kiss

Course Length: Semester.

Class Textbook: UCSMP Geometry; 2nd edition. Authors: Usiskin, Hirshhorn, Highstone, Lewellen, Opong, DiBianca and Maier. Copyright 2002. ISBN# 0-13-058417-7 Publisher: Prentice-Hall.

Course Description: Math 085 is a review of basic plane geometry concepts initially presented in Geometry I. It proceeds at a semester pace and form a fundamental base for subsequent geometry study. Skill level attained is measured by achievement on the COMPASS exam; this score indicates college course sequence placement. The main focus of course instruction is to develop a fundamental base of geometric knowledge required in college level math courses.

Course Content: Course completion will allow you to:

- 1. Use basic geometry vocabulary accurately and appropriately.**
- 2. Understand the concepts and principles of object study in the plane.**
- 3. Identify and describe essential characteristics of plane figures.**
- 4. Construct basic geometry figures using a straightedge and compass.**
- 5. Tell the difference between inductive and deductive reasoning and show the use of deductive reasoning in selected proof arguments.**
- 6. Demonstrate properties that result from parallel lines being cut by a transversal.**
- 7. Analyze the geometry of a circle using chord, tangent, arc length and central angle.**
- 8. Deduce and apply formulas for perimeter, area, surface area and volume for figures in the plane and space.**
- 9. State and apply the Pythagorean Theorem.**
- 10. Use the concepts of symmetry, similarity and congruence to analyze the relationships between geometric figures.**
- 11. Solve applied problems using a geometric perspective.**
- 12. Appreciate the development of geometry throughout history.**

Course Assessment: Homework, quizzes, end of chapter exams, class participation and a comprehensive semester final exam (COMPASS exam) will be used in combination to assess course achievement. Homework and class participation is weighted 40%; quizzes 20%; and end of chapter tests 40%. There are a minimum (per semester) 18 homework grades and 9 ends-of- chapter tests.

Calculators are recommended. Models used in class are TI-34X and TI-83 plus.