

## Outline of Math 142 Test II

### Chapter 12 – Geometry

**Section 1:** Understanding basic geometry shapes, their properties, definitions and relationships between different shapes.

**Section 2:** Analyzing shapes: Lines of symmetry, rotational symmetry, regular polygons, convex and concave shapes.

**Section 3:** Basic definitions and relationships of lines, planes, angles, sum of angles in a triangle.

**Section 4:** Regular polygons and tessellations. Angle measures for vertex angles, exterior angles, and central angles of regular polygons. How the vertex angles of regular polygons determine what tessellations, if any, it is possible to create with them. How to name and discuss semiregular tessellations.

**Section 5:** 3-dimensional geometry: Understanding planes, skew lines, dihedral angles, pyramids, prisms and regular polyhedra. Be able to give examples from the classroom of 3-dimensional concepts. Be able to draw pyramids and prisms and identify the number of vertices, edges and faces they have.

### Chapter 13 – Measurement

**Section 1:** Metric system: Understand the units used in the metric system, using common examples as in homework problems. Be able to give classroom examples of common metric units. Be able to do conversions within standard English units and within metric units.

**Section 2:** Understand differences between perimeter and area of polygons and circles. Understand all the formulas to calculate perimeter and area of polygons and circles. Know the Pythagorean Theorem and how to use it to find measurements for sides or heights of various polygons. Be able to explain how the area formulas for simple figures are all related to the area of a parallelogram.

**Review your class notes, homework problems and quizzes.**

**Practice the concepts by doing the chapter reviews.**

**Check your understanding by doing the chapter tests as a practice test.**