**Lesson Plan Outline Geometry in Construction**

**Title:**

Area of Circles & Sectors

**Objective(s):**

Students will calculate the area of a sector of a circle

**Learning Standard(s):**

[CCSS.MATH.CONTENT.HSG.C.B.5](http://www.corestandards.org/Math/Content/HSG/C/B/5/)

Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

**Activities:**

Students will split up a circle into sections and determine the area of a sector; students will calculate the cost based on its area

Students will solve various application problems with area of a sector.

**Materials:**

Area of a Sector W.S.