

Study Guide for Engr 1201 Assessment 2

Know the definitions of the following:

- Measurements for length, mass and force in FPS and SI
- SI Prefixes
- Systemic error
- Random error
- Accuracy
- Precision
- Sine, Cosine, and Tangent

Know the formulas for perimeter and area for the following, and be prepared to solve numerical examples:

- Circle
- Rectangle
- Triangle
- Parallelogram
- Trapezoid

Know the formulas for surface area and volume for the following, and be prepared to solve numerical examples:

- Sphere
- Cylinder
- Rectangular Prism
- Square Based Pyramid

Be prepared to work out problems in the following areas:

- Pythagorean theorem
- Finding missing degrees in right triangles
- Converting degrees to radians
- Converting radians to degrees
- Using sine, cosine, and tangent to find missing sides and missing angles
- Adding, subtracting, and multiplying vectors graphically
- Resolving a vector using trigonometry
- Rounding to 3 significant figures
- Converting FPS to SI units, or converting SI units to FPS
- Averaging measurements
- Finding the error on the average
- Take a measurement and express the error on that measurement

Assessment 2 Summary:

- 80 % – In-Class Written Exam
- 20 % – Take-home Excel Project