Chemistry 101
Unit 3 – Outcomes

The student will be able to:

1) Define significant figures as those digits that show the degree of certainty or precision of a measured quantity.

2) Recognize that the last digit on the right of a measured quantity is understood to be an estimate.

3) Determine the number of significant figures in a measured quantity.

4) Convert measurements to standard exponential form to show the correct number of significant digits.

5) Identify whether a zero in a measurement is or is not significant.

6) Round off the mathematical result of any calculation involving measured quantities to the proper number of significant digits.

7) Add or subtract measured quantities and express the result in standard exponential form with the proper number of significant figures and correct unit label.

8) Multiply or divide measured quantities and express the result in standard exponential form with the proper number of significant figures and correct unit label.

9) Identify that exact (non-measured quantities) numbers and defined conversion factors have an infinite number of significant figures.

10) Given a quantity expressed in a metric unit, express that quantity in an appropriate English unit and vice versa.

11) Given two of the following for a sample of pure substance, calculate the third: mass; volume; density.