Chemistry 101
Unit 10 – Outcomes

The student will be able to:

1) Identify properties of the following types of compounds:
   a) acids
   b) bases

2) Identify the ion that is present in solutions commonly identified as:
   a) acids
   b) bases

3) Write equations for simple acid – base reactions.

4) Define an acid as a proton donor and a base as a proton acceptor.

5) Write the equation for the formation of a hydronium ion in water.

6) Given an equation for a Bronsted – Lowry acid – base reaction, identify:
   a) the acid
   b) the base
   c) conjugate pairs

7) Describe the properties of an amphoteric substance.

8) Distinguish between the following terms:
   a) strong acid – weak acid
   b) strong base – weak base

9) Recognize that the pH scale is a measure of relative acidity and basicity.

10) Recognize that the pH of a solution is determined by its hydrogen ion concentration.

11) Given the pH of a solution, classify it as acidic, basic, or neutral.

12) Describe two methods of determining pH: indicators and pH meters.

13) Given the volumes of two solutions that react with each other in a titration, the molarity of one solution, and the equation for the reaction, calculate the molarity of the second solution.