**Chemistry 11 - Formal Titration Lab**

Planning, conducting and analyzing an experiment is a critical component of any science course. This assignment will provide you the opportunity to practice these important skills.

**Task:**

Write a formal Lab report for a titration lab. Your formal lab needs to be typed up on the computer – (**Use Times New Roman font, size 12**)

You will be given a base (NaOH) with a concentration of 0.100M, and an acid (HCl) with an unknown concentration. Your task will be to experimentally find the concentration of your acid. Include the following components in your Lab write up.

**You must include the following in the lab write up:**

**Title Page:** (1 mark)

The first page of the lab report needs to have a Title, you and your partners name and a date.

**­Purpose:**  (1 mark)

In one or two sentences, tell your readers what you are trying to achieve.

**Introduction:** (5 marks)

In this section you will discuss the relevant theory of how you will arrive at the concentration of your unknown acid. This is your chance to convince me that you understand what you are doing in the lab. **Do Not** write the procedure here but rather explain why you are performing the necessary steps. Feel free to include a drawing of a labelled titration apparatus.

**Materials:** (3 marks)

Include a list of chemicals and a list of Titration Apparatus equipment.

**Procedure:** (4 marks)

Provide step by step instructions such that a beginning chemistry 11 student can understand and follow your instructions.

**Data:** (4 marks)

In this section, you will organize all your results in neat **labeled** tables. Make sure you include at least **3 trials.**

**Calculations:** (5 marks)

Your calculations need to be neat and organized. A sample calculation of all your calculations is required.

**Discussion:** (5 marks)

Include the following in your discussion:

* Full chemical equation of the reaction including phase symbols
* discuss factors of the experiment that may not have been planned or only occurred on your specific trial.
* Were there any errors that may have changed your results?
* Were the results you obtained what you expected?

**Results:** (2 marks)

Briefly, in 1 or 2 sentences state your findings. In this case, what was your concentration of unknown acid and how did you arrive at your answer.

**Due Date:** Tuesday, June 12

**Total: \_\_\_\_\_ / 30**

**\*\*\*Note\*\*\*: Staple the data page you complete  
 in the lab to the back of the  
 formal report**