This Year 12 HSC chemistry workshop covers material from a combination of Module 5 and 8 of the NSW syllabus. Each of the following activities will be performed by the students within the 2.5 hour session.

1. **Preparing a standard solution** of sodium carbonate

2. **Titration to standardise a solution** of hydrochloric acid using methyl orange indicator

3. **Titration to determine the concentration** of unknown sodium hydroxide solution

4. **Determine the equilibrium constant** for the iron(II) thiocyanate ion equilibrium

**Scientific skills taught and/or practiced during this workshop**
- Weighing and mixing solutions
- Precision glassware use, e.g. rinsing glassware with dionised water
- Titration
- Use of pH indicators
- Using a spectrophotometre
- Recording, calculating and analysing mathematical results

Image taken from https://fineartamerica.com/featured/8-titration-experiment-.html