Checklist for Formal Reports

Abstract – Does your abstract:

- □ state the purpose of experiment?
- □ summarize key experimental results?
- □ where possible, compare experimental results to theoretical results?

Introduction – Does your introduction:

- □ provide a context for the experiment, including appropriate references?
- □ clearly explain how your experiment fits within the broader context of the course's three main topics (i.e. thermodynamics, equilibria, and kinetics)?
- □ explain why the experimental approach you used is suitable and briefly outline any relevant theory?[1]
- □ clearly state the goal(s) of your experiment

Procedure – Does your procedure:

- □ avoid reading as though it is a list or as a timeline?
- □ provide only essential details?
- □ omit numerical information that is not critical or that will be included with the results and conclusions?

Results and Conclusion – Are your results and conclusions:

- □ presented in a logically structured manner?
- □ supported by tables and figures, as appropriate?
- □ clearly stated and, where appropriate, compared to theoretical or expected results?
- □ supported by an analysis of reasonable experimental errors?

Miscellaneous – Have you:

- □ checked to see that information is not repeated in different sections of your report?
- □ discussed each table and figure in your report?
- □ carefully checked your spelling and grammar?
- □ ensured that there is enough information included in your report to verify your results and conclusions?
- □ paid attention to significant figures and units?
- □ properly referenced the work of others?

[1] Alternatively, the relevant theory may be developed in the results and conclusions section.

Figures – For each figure, did you:

- □ properly number the figure and include an informative caption?
- □ choose an appropriate scale for each axis?
- □ set the background area to white?
- □ remove gridlines unless they are critical to interpolating the data?
- □ properly labeled the axes (including units)?
- □ ensure that multiply data sets are easily and clearly identified? (note: do not include a legend if the figure contains only one data set)
- □ remove connecting lines between data points (unless such lines are critical to following trends when displaying multiple data sets)?
- □ (if necessary) ensure that your data points are not obscured by the inclusion of a regression line?

Tables – For each table, did you:

- □ properly number the table and include an informative title?
- □ include all relevant measurements and final results?
- □ exclude unnecessary information, such as intermediate calculations?
- □ properly labeled the rows and/or columns (including units)?
- □ use appropriate significant figures?