

# Rubric for Evaluating Formal Reports

The following list provides a general set of questions that I use to evaluate formal reports.

**Abstract:** Does your abstract...

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

**Introduction:** Does your introduction...

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

**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 is included with your 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 Questions**

- Is each table and each figure discussed in the report?
- Is the report free from spelling and grammatical errors?
- Is there sufficient information in the report to verify the results and conclusions?
- Are measurements and results reported with units and with attention to significant figures?
- Is the work of others properly referenced?

**Figures:** Does each figure...

- include an informative caption?
- use plotting symbols of sufficient size so that the data points are not obscured by a regression line?
- use appropriate scales for each axis?
- have properly labeled axes (including units)?
- include a legend, when necessary, to ensure that multiple data sets are clearly identified?
- remove grid lines unless they are critical to interpolating the data?
- remove connecting lines between data points, unless such lines are critical to following trends when displaying multiple data sets?

**Tables:** Does each table...

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