Formal Lab Report Grading Rubric

The format for formal lab reports is described in detail in the laboratory manual. There are additional materials posted on the course website to assist you in writing formal laboratory reports.

Scoring: 4 = 85%-100%   3 = 75%-84%   2 = 50% - 74%   1 = 45% and below

	4 – Exceptional	**3 – Admirable**	**2 – Acceptable**	**1 – Poor**	**0 - Substandard**	**Score**
Abstract	Clear, concise, and thorough summary including context, important results, and conclusions.	Refers to most of the major points, but some minor details are missing or not clearly explained	Misses one of more major parts of the results, context, or conclusions	Missing several majors aspects and merely repeats information from the introduction	None or unrelated	
Introduction	A cohesive, well-written summary (including all relevant chemistry) of the background material pertinent to the experiment with appropriate references. Places the purpose of the experiment in context.	Is nearly complete but does not provide context for minor points. Contains relevant information but fails to provide background for one aspect of the experiment, or certain information is not cohesive.	Certain major introductory points are missing (ex: background, theory, chemistry, context, etc.) or explanations are unclear and confusing. References are used properly.	Very little background information is provided and/or information is incorrect. No references are provided.	None or unrelated	
Experimental	Contains details on how the experiment was performed and the procedures followed. Written in the correct tense and omits information that can be assumed by peers (trained chemists)	Narrative includes most important experimental details but is missing one or more relevant pieces of information.	Missing several experimental details or some incorrect statements.	Several important experimental details are missing. Narrative is incorrect, illogical, or copied directly from the lab manual. Written in the incorrect tense.	None or unrelated	
Results (Presentation of results, figures and tables)	All figures, graphs, and tables are numbered with appropriate captions. All tables, figures, etc. are explicitly mentioned in the text. Relevant experimental data are presented which are used in the discussion.	All figures, graphs, and tables are correctly drawn, but some have minor problems that could be still be improved. All data and associated figures, etc. are mentioned in the text. Most relevant data present.	Most figures, graphs, and tables are included, but some important or required features are missing. Certain data reported are not mentioned in the text or are missing. Captions are not descriptive or incomplete.	Figures, graphs, and tables are poorly constructed; have missing titles, captions or numbers. Certain data reported are not mentioned in the text. Important data missing.	None or unrelated	

Overriding criterion: If any portion of the report is identified as not being original and/or not done by the student, the paper will receive a zero and academic dishonesty charges will be filed.

	4 – Exceptional	3 – Admirable	2 – Acceptable	1 – Poor	0 - Substandard	Score
Discussion/ Conclusions	Demonstrates a logical, coherent working knowledge and understanding of important experimental concepts, forms appropriate conclusions based on interpretations of results, includes applications of and improvements in the experiment, references collected data and analysis, refers to the literature when appropriate, and demonstrates accountability by providing justification for any errors. Address all specific points or questions posed in the lab manual.	Demonstrates an understanding of the majority of important experimental concepts, forms conclusions based on results and/or analysis but either lacks proper interpretation, suggests inappropriate improvements in the experiment, refers to the literature insufficiently, or lacks overall justification of error. Address most of the specific points or questions posed in the lab manual.	While some of the results have been correctly interpreted and discussed, partial but incomplete understanding of results is still evident. Student fails to make one or two connections to underlying theory. Address some of the specific points or questions posed in the lab manual.	Does not demonstrate an understanding of the important experimental concepts, forms inaccurate conclusions, suggests inappropriate improvements in the experiment, refers to the literature insufficiently, and lacks overall justification of error. Address none of the specific points or questions posed in the lab manual.	None or unrelated	