Experiment Lab Report Write-up Criteria

Analytical Chemistry 251

Required Assignments: *Laboratory,* Students are required to perform assigned laboratory experiments, alone or with a partner. Before any lab period and before the class begins, you should have already **read** the lab experiment and have the pre-lab assignment ready to **submit**. Reports consist of observations made during the experiment, calculations and interpretation of your observations. You are required to answer all follow-up questions concerning the concepts studied in each experiment. All work should be recorded in your lab notebook.

#	**CRITERIA** (Tentative point distribution - may change depending on experiment)	pts %
1	Quiz / Homework	5 – 10 %
2	**Introduction and Procedures** A. Introduction • Objective of Experiment • Background information (Math relationship used in study, pertinent chemical reactions, graph to be generated) B. Procedures • Short outline of procedures in Expt. • Flow chart pictorial of procedures. • Procedural changes. • Information (data) to be recorded during expt. (Table template form.) • Safety and disposal information. **This portion of the report should be turned in before the start of lab class (prelab discussion).**	10 -15%
3	**Data and Observation** C. Observation • Detailed account of what was observed during the experimental procedure. • Balance chemical equations; all chemical reaction which occurred during an experiment should be written in this section. Then it should also be written in the discussion portion of the report. D. Data • Data in table form. with correct significant figures, precision and units for each entry. Data should always be recorded in an organize fashion. **This portion of the report should be turned in before you leave the laboratory.**	15 -25%
	Calculations & Results E. Calculations • Sample calculation shown • Statistical analysis of data and result (if applicable) F. Results • Result(s) in table form. • Clear delineation of how data is used to get the final results. **In this section accuracy of results are very important as well as detailed calculation showing how the result was obtain. "Unknown" will also be included in this section.**	20 – 25%
4	**Discussion / Conclusions and Post-Lab Questions** G. Discussion •A complete discussion should be written in this section. Topics to be discuss can be found at the end of each experimental procedure from the lab manual. Each discussion should include the significance of the result(s) and the meaning of the result of the experiment. All chemical reactions that occurred during the experiment should also be included here. H. Conclusion • Summary of the goal of the experiment and how that goal was achieved in the experiment **This portion (Calculation and Discussion) is turned in at the beginning of class of the due-date**	15-25%
5	**Post Lab Questions** I. Post-lab questions from manual or class assignment • Complete well thought-out answers with an explanation. No explanation, no credit. **This portion (Post lab question) is turned in at the beginning of class of the due-date**	5 – 10%
6	**Overall Presentation (of lab notebook)** • Lab technique during lab e.g., class preparation, safety glasses precautions and leaving the laboratory clean. • Lab report e.g., headings of each page of notebook including- name, title, lab partner, date and section #. • Legibility of report: ease of readability of written work and clear delineation of calculations. **The overall impression is important.**	10%
7	**Lab Technique** • Precision of work, sound statistical analysis, conclusion of results	5 %
	Total (This total may be adjusted depending on lab technique and student conduct in the experiment)	100%