Chemistry 228H
Honors General Chemistry Laboratory
SYLLABUS – Winter 2014 – Atkinson

Lab Manual, etc.: All material for this lab will be available on D2L under the heading labeled “Course Content”

Materials: You will need chemical splash safety goggles. These are available from the chemistry stockroom (Room 280 SRTC). You will need a bound carbonless copy notebook (not loose paper) for recording data. You can continue to use both, if you have them from CH 227 or 227H. You are responsible for all laboratory equipment checked out to you. If you break glassware, you will have to pay the replacement cost of the glassware – be careful!

Dress for lab: You must wear shoes that cover your entire foot, including the heel. You will be wearing lab coats, but it is still not a good idea to wear nice clothes to lab.

Grading: The laboratory grades will be based on written lab reports and lab instructor evaluation. Your adherence to lab policies and procedures will be the basis for this evaluation.

Late Work: Laboratory reports must be submitted on the Dropbox of D2L by 10 pm (22:00) of the Thursday following completion of the experiment. Late reports will lose 1 point per day late.

Attendance in this lab is mandatory: YOU MUST MAKE A REAL EFFORT TO ATTEND ALL SCHEDULED LABORATORY MEETINGS; but if you are unable to attend, you must notify both laboratory instructors (AtkinsonD@pdx.edu and jslack@pdx.edu) as soon as possible before class. You will still be responsible for completing the lab report for the missed lab. Data will be obtained from the shared spreadsheet on the Google drive (or from the lab TA). This report should be clearly labeled as using “borrowed” data and must indicate the origin of the data reported. This report will still be due on D2L by the regular deadline. In addition to completing the missed lab report you must also make up the missed lab time. The make-up laboratory will not be the same lab you missed, but will be a unique activity that will take place during week 9 of the quarter, during the regularly scheduled lab period. FAILURE TO DO BOTH (i.e., write the report for the missed lab and attend the make-up session) will result in an incomplete which you will have to make up next year at this time. If you miss two or more labs your grade will be an incomplete. Being more than 15 minutes late twice in a term will be counted as a missed lab and you will have to do the make-up to pass the lab. Late students may also be assigned lab clean-up duties at the conclusion of the lab period. Being late more than twice will get you an incomplete.

Plagiarism: Experiments will be done in groups, sharing the computer for data analysis and acquisition. You will also pool data with other groups, but your lab reports MUST be written individually. It will be considered plagiarism if you borrow tables or graphs from another student (learning how to properly create a table or graph is an important skill that is an important learning outcome of this class). You cannot paraphrase the internet, your book or any other source without the proper reference. Additionally, it will be considered an act of plagiarism if you borrow data without prior approval from your TA. There are additional resources online to help you avoid plagiarism. Please be sure to check
http://www.lib.pdx.edu/instruction/survivalguide/writeandcitemain.htm or http://web.pdx.edu/~b5mg/plagweb.html, and feel free to discuss the issue with your TA or the instructor.

Depending on the severity of the offense(s), you will receive, at a minimum, a zero score for the report. Additionally, a report may be made to the Office of Student Affairs.

**Grading Criteria**

**Unless otherwise noted, every lab report is worth 10 points, including the notebook and technique.**

In addition to the above points you may receive up to:

- **Notebook:** 10 points
  These points are awarded by the TA based upon the quality of your lab notebook. Your TA will be looking to see that you are including a title, a statement of purpose, the procedures, data tables and that all data is present.

- **Lab technique:** 10 points
  The basis for assigning these points includes (but is not limited to) general lab technique and methods, safety, general mannerism in lab and cleanliness.

Both of these criteria will be evaluated by your TA. At the end of each lab period you must check out with your TA so that he or she can assess your lab notebook and verify that you have cleaned your work area.

**CH228H Lab Schedule** (All labs are Friday morning, reports are due the following week by 10 pm Thursday Night – submitted on D2L Dropbox)

Jan. 10 - Deriving the Gas Laws Using Computer Simulations

Jan. 17 - Experimental Investigation of the Gas Laws

Jan. 24 - The Enthalpy of Neutralization of Phosphoric Acid

Jan. 31 - Enthalpy of Reaction and Hess's Law

Feb. 7 - Vapor Pressure and Heat of Vaporization

Feb. 14 - Using Freezing-Point Depression to Find Molecular Weight

Feb. 21 - The Rate and Order of a Chemical Reaction

Feb. 28 - Chemical Equilibrium: Finding a Constant, $K_C$

March 7 - Make-up: Le Chatelier’s Principle in a Cobalt Complex