CHM 158 Laboratory
Winter 2010
Tentative Syllabus

Instructor: Andrea Jones
Office: 265 SEB
Phone: (248)-370-2331
Office Hours: W 12:00 ï 1:00 p.m.
Or by appointment
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Teaching Assistant: Matt Tiza and Victor Hill

Course: CHM 158 Laboratory
CRN: 11737
Room: 230/240 HHS
Day: Wednesday
Time: 5:30 ï 8:30 p.m.

Required Items:
- Students are required to print the Experimental Data/Observation Sheets and Post Laboratory/Summary Sections for each experiment. The experiments used in CHM 158 laboratory are available to you on the Moodle website associated with this class. (https://moodle.oakland.edu)
- Safety Goggles (not safety glasses). These are available for purchase from the bookstore.
- Safety Quiz you must take the safety quiz before you can participate in the lab. This is available on the Moodle website associated with this class. (https://moodle.oakland.edu)

You are responsible for printing your own data sheets weekly and for supplying your own SAFETY GOGGLES. You will need to bring both the printed data sheets and safety goggles with you to every class.

General Course Overview:
CHM 158 is a lecture-laboratory course that represents the second half of a two semester course in general chemistry. This syllabus covers the laboratory portion of the class. CHM 158 focuses on the factors that influence the rates and equilibrium of chemical reactions. Experiments are performed and reported in groups of three to four students. A student’s performance in this class contributes 20% to his or her final score in CHM 158. A detailed description of this laboratory course follows.

<table>
<thead>
<tr>
<th>Date</th>
<th>Experiment</th>
<th>Post Lab Quiz</th>
<th>Report Due Date</th>
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<tbody>
<tr>
<td>1/6</td>
<td>Check-In</td>
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<tr>
<td>1/13</td>
<td>Safety Lecture, Expt. 1 Part I</td>
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<tr>
<td>1/20</td>
<td>Expt. 1 Part II</td>
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<td>1/27</td>
<td>Expt. 2 Part I</td>
<td>Quiz on Equilibrium Constant</td>
<td>Expt. 1</td>
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<tr>
<td>2/3</td>
<td>Expt. 2 Part II</td>
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<tr>
<td>2/10</td>
<td>Expt. 3 Part I</td>
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<td>Expt. 2</td>
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<tr>
<td>2/17</td>
<td>Expt. 3 Part II (lab practical)</td>
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<td>Expt. 3</td>
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<td>2/24</td>
<td>Spring Break</td>
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<td>3/3</td>
<td>Expt. 4 Part I</td>
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<tr>
<td>3/10</td>
<td>Expt. 4 Part II (lab practical)/ Expt. 5</td>
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<td>Expt. 4</td>
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<tr>
<td>3/17</td>
<td>Expt. 5 / Expt. 4 Part II (lab practical)</td>
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<td>Expt. 5</td>
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<td>3/24</td>
<td>Expt. 6</td>
<td>Quiz on Thermochem</td>
<td>Expt. 5</td>
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<td>3/31</td>
<td>Expt. 7 Part I</td>
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<td>Expt. 6</td>
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<td>4/7</td>
<td>Expt. 7 Part II &amp; Check-out</td>
<td>Quiz on Electrochem</td>
<td>Expt. 7</td>
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<td>4/15</td>
<td>Check-out (if necessary)</td>
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Last day for Official Withdrawal is March 16, 2010. If you drop this course, you need to check out of the lab. Failure to check out of your lab drawer will result in a laboratory check-out fee ($10.00). The last day to check-out of your drawer is April 14, 2010.

Purpose
The laboratory combined with the lecture is designed to reiterate the chemistry concepts learned in the classroom through hand-on experience. The laboratory portion of this class will familiarize one with basic laboratory techniques. In many instances, the experiments demonstrate how these basic chemistry concepts relate to everyday life.

Laboratory Groups/Grading
You will be assigned to a laboratory group of three or four members during the first laboratory session. You should make every effort to work as a fully functioning team with all members making significant contributions to the laboratory work, preparation of pre-lab assignment, and preparation of laboratory reports. Grades will be based on the total points earn by the student. The final percentage will be incorporated into the overall CHM 158 grade. Each group will turn in a total of seven laboratory reports. Each group will be given one grade for each report. The grades will then be individually adjusted for each laboratory group member based on the peer-evaluation scores. You will rate the contribution of each member of your team on each experiment in terms of a percentage score. A 100% score indicates the member has fully completed their assigned tasks for that experiment. For Experiment 1, the rating of teammate contributions will not affect the grades but will show each person how the others on the team value each person’s efforts. For experiments 2, 3, and 4, ratings will impact 25%, 50%, and 75%, respectively, of the lab scores. For experiments, 5 through 7, 100% of the lab scores for each person will be multiplied by the teammates’average rating. Lab reports are due at the beginning of the lab period that follows the completion of an experiment. Late reports lose credit as follows: 1 day late = -10% of possible total points; each additional day late = -10% of possible points. Note: 5 minutes late and 24 hours late both count as 1 day late.

Laboratory Reports
Lab reports are due at the start of the lab period following the period of the post-lab discussion. Lab reports must be stapled in the upper left corner and include the following in the order shown:

1) grade sheet  
2) pre-lab (if handed back)  
3) data sheets  
4) graphs  
5) post-lab report  
6) group member assessment sheets.

A single report may be submitted by each group and must show on the grade sheet page the names of all group members and the group number. If anyone disagrees with any part of the group report, he/she may submit an addendum to the report whose grade will replace that for the part in question of the group report. Addenda should be stapled at the back of the group report. For experiments with individual unknowns, the data sheets for the unknowns should be stapled at the back of the group report. Be sure these data sheets show your name and unknown number.

Extra Credit or Dropped Scores: There is no extra credit or dropped scores

Lab Practical
For experiments 3 and 4, part II will be a lab practical. Each lab practical is done individually and all calculations and graphs must be done in class. The lab practical must be turned in before leaving the lab that period. Lab practical will be worth 30 points each.
Make-up Laboratories
Make-up laboratory experiments will only be granted for students who have experienced **extreme circumstances and notified the instructor within 12 hours of the missed lab**. The instructor is the sole judge of the circumstances that qualify as a condition sufficient for a make-up. If the instructor is not notified within 12 hours of a missed lab, then the student will not be allowed to make up the laboratory. Failure to attend labs places an extra burden on a student’s laboratory group members. Groups should report students that miss more than one laboratory session. **If you miss more than one lab period you will be given a score of 0% for the laboratory portion of CHM 158.**

Laboratory Waiver
If you are repeating this course, you may be able to waive the laboratory portion of the current course. You may choose to use the laboratory scores from the first course if: (1) your average in the laboratory portion of that course was at least 75% **and** (2) you were enrolled in that course no more than three years ago. If you wish to apply for a laboratory waiver, you must complete a *General Chemistry Laboratory Waiver* form. These forms are available in the Department of Chemistry office, 260 Science and Engineering Building (SEB). This laboratory waiver form **must** be completed and returned to your current lecture instructor during the first week of the current semester. You must attend the laboratory portion of the course until the waiver is approved.

Post-Lab Quizzes
At the end of experiments 2, 6 and 7 a Post-Lab Quiz will be administered. These quizzes will be given on the dates listed in the syllabus. The Post-Lab quizzes will test your knowledge of the experiment, including safety, theory, and calculations. The quizzes are worth 5-10 pts of your lab report.

Academic Conduct
Students are expected to uphold the academic standards set by Oakland University. The work submitted by any student should be their own work. Students suspected of academic misconduct (Examples of academic misconduct are the submission of labs containing data that has been falsified, copying any part of your lab from a previously graded lab report, copying from other students, plagiarism, changing answers on your lab report after the report has been graded, the use of materials not authorized by the instructor, obtaining copies of old lab reports or answer keys, or another student completing the lab for you), will be reported to the academic conduct committee. **Students found guilty of academic misconduct by the Academic Conduct Committee will receive a course grade of 0.0. Note: This grade is not just for the laboratory portion of the class but for the entire 5 credit hours of CHM 158.**

Special Considerations
Students with disabilities who may require special considerations should make an appointment with campus Disability Support Services. Students should also bring their needs to the attention of the instructor as soon as possible.