CHMY 144
Spring 2010

INSTRUCTOR: Dr. Laura Tayer OFFICE: Sci 226
PHONE: 657-2012 E-MAIL: ltayer@msubillings.edu

OFFICE HOURS: MWF 8:00-9:00, MW 1:00-2:00 or by appt

OUTCOMES AND ASSESSMENT:
Chemistry 144 is a laboratory course designed to enable you to develop your analytical skills as
well as introduce you to laboratory practices and techniques. As far as possible, concepts learned in
the lecture course (Chmy 143) will be used here. This will be assessed by graded weekly report
sheets, weekly quizzes, graded lab note books, comprehensive final and instructor evaluation of lab
performance.

REQUIRED MATERIALS:
1. Lab Manual - Experiments in General Chemistry II, 3rd ed. Billings, MT:
2. SAFETY GOGGLES!!!! These are mandatory. You will not be allowed in
   lab without them.
3. Lab Note Book - A **bound** notebook lined or quad ruled.

GRADING:
1. Prelab questions - These are to be turned in at the beginning of each lab
   period and are worth 5 pts. each.
2. Report Sheets - These are to be turned in by **2:00 pm** two days after the lab
   is completed (e.g. for Monday’s lab section the report sheet is due
   Wednesday at 2:00 pm). The report sheets are worth 20 pts each.
3. Quizzes - There will be a quiz every week at the beginning of the discussion
   session. Half the quiz will test procedural understanding of the experiment
   scheduled for that day. The other half of the quiz will test conceptual
   understanding of the previous weeks experiment. The quiz will be worth
   15 pts.
4. Lab Note Book - Keeping a lab notebook is required. For each experiment
   data and observations will be recorded in the notebook and then transferred
   to the report sheet, refer to Appendix III for format. The notebook will be
   randomly collected 3 times during the semester and is worth a total of 60pts.
5. Lab final - A final worth 50 pts will be given the last lab period of the
   semester.
6. Lab evaluation - The lab instructor will evaluate your performance in lab
   throughout the semester. Worth 25 pts.
7. A written report worth 45 pts will be required for the qual lab.
8. The grading scale will be as follows although it may be curved at the end of
   the semester ( I reserve the right to give +/- grades to borderline cases)
   
   A  90 and above
   B  80-89
   C  70-79
   D  60-69
   F  59 and below
Late labs will have a minimum of 4 points deducted from the lab report total. A late lab will no longer be accepted one week after the lab was originally due.

**Lab Schedule**

<table>
<thead>
<tr>
<th>date</th>
<th>lab</th>
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<tbody>
<tr>
<td>Jan. 19, 20</td>
<td>Check in</td>
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<tr>
<td>Jan. 25, 26, 27</td>
<td>Exp 1 (Molecular Geometry Lab)</td>
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<tr>
<td>Feb. 1, 2, 3</td>
<td>Exp 2 (MM Determination by Depression of Freezing Point)</td>
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<tr>
<td>Feb. 8, 9, 10</td>
<td>Exp 3 (Rates of Chemical Reactions, A Clock Reaction)</td>
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<td>Feb. 15, 16, 17</td>
<td><strong>No Lab Presidents' Day Week</strong></td>
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<tr>
<td>Feb. 22, 23, 24</td>
<td>Exp 4 (Equilibrium Constant)</td>
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<td>Mar. 1 - 5</td>
<td><strong>Spring Break</strong></td>
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<tr>
<td>Mar. 8, 9, 10</td>
<td>Exp 5 (Le Chatelier's Principle)</td>
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<tr>
<td>Mar. 15, 16, 17</td>
<td>Exp 6 (Antacid Tablets)</td>
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<tr>
<td>Mar. 22, 23, 24</td>
<td>Exp 7 (pH, Hydrolysis and Buffers)</td>
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<td>Mar 29, 30, 31</td>
<td>Exp 8 (Qualitative Analysis)</td>
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<tr>
<td>April 5, 6, 7</td>
<td>Exp 8 (Qualitative Analysis Cont.) (Report due 4/16/2009)</td>
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<tr>
<td>April 12, 13, 14</td>
<td>Exp 9 (Determination of % Oxalate)</td>
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<tr>
<td>April 19, 20, 21</td>
<td><strong>Final Exam / Check out</strong></td>
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**You must check-out of your lab drawer. Failure to do so results in a $20 check-out fine**

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**The MATERIAL SAFETY DATA SHEETS (MSDS)** for any chemical used in this laboratory can be found in the MSDS red binders located in Science Technical Services (STS) in Sci 241. These sheets contain information on hazards associated with the chemical as well as information on its proper handling and storage.

**POLICY ON ACADEMIC HONESTY:** It is your responsibility to familiarize yourself with the Student Handbook. In particular, you should understand Part IX: Code of Conduct, paying special attention to subsection B.1, page 78 (Academic Misconduct). All students are expected to adhere to the highest standards of academic honesty and refrain from any action that is dishonorable or unethical. In all examinations, quizzes, and lab reports, students are expected to submit their own work entirely. Cheating or alleged cheating on an exam or quiz in this class will result in a grade of zero (failure) for the exam or quiz involved, and may lead to a zero in the course.

**POLICY ON STUDENT CONDUCT:** Disruptive behavior such as loudly talking amongst yourselves, ringing cell phones, talking or texting on cell phones, and reading non-course material during discussion or in lab will not be tolerated. Any students indulging in such behavior will be asked to leave. Cell phones must be turned off prior to discussion. Occasionally, a student will have a disagreement with the professor or with the teaching assistants over an issue of grading. Such discussions, whether in class or in office, are to be kept civil. Verbal abuse in any form will NOT be tolerated. Any student indulging in such behavior will be reported to the Dean of Arts and Sciences and The Office of Student Affairs.