2015

CHEM 161-11 General Chemistry Lab I

Roy Cohen
cohen@xavier.edu

Follow this and additional works at: http://www.exhibit.xavier.edu/chemistry_syllabi_fall_2015

Recommended Citation
http://www.exhibit.xavier.edu/chemistry_syllabi_fall_2015/8

This Restricted-Access Syllabus is brought to you for free and open access by the Chemistry Syllabi 2015 at Exhibit. It has been accepted for inclusion in Chemistry Syllabi Fall 2015 by an authorized administrator of Exhibit. For more information, please contact exhibit@xavier.edu.
Instructor: Dr. R. Cohen  
Office Hours: Tue.: 10:30 am - 11:20 am; 1 pm – 3:00 pm;  
W, F: 11:30 am – 2:00 pm; and by appointment

Logan Hall, Room 202A  
Phone: 745-2067  
e-mail: cohen@xavier.edu

Text: Slowinski, Wolsey and Rossi: Chemical Principles in the Laboratory  

Tentative Schedule- Thursday’s, Logan 201, 3:00 pm – 5:50 pm

<table>
<thead>
<tr>
<th>Date</th>
<th>Experiment/ Assessment</th>
<th>Page number/source</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/27</td>
<td>Lab Orientation, Check-In</td>
<td>vii lab text &amp; handouts</td>
</tr>
<tr>
<td>9/3</td>
<td>Density</td>
<td>1 lab text</td>
</tr>
<tr>
<td>9/10</td>
<td>Paper Chromatography</td>
<td>7 lab text</td>
</tr>
<tr>
<td>9/17</td>
<td>Properties of Hydrates (parts A-D only; ASA 1a-d only)</td>
<td>35 lab text</td>
</tr>
<tr>
<td>9/24</td>
<td>Determination of a Chemical Formula</td>
<td>23 lab text</td>
</tr>
<tr>
<td>10/01</td>
<td>Identification of Unknown Compounds</td>
<td>29 lab text</td>
</tr>
<tr>
<td>10/08</td>
<td><strong>NO CLASS</strong></td>
<td></td>
</tr>
<tr>
<td>10/15</td>
<td><strong>LAB QUIZ 1;</strong> Redox titration</td>
<td>245 lab text</td>
</tr>
<tr>
<td>10/22</td>
<td>Unknown chloride analysis-titration</td>
<td>41 lab text</td>
</tr>
<tr>
<td>10/29</td>
<td>Heat Effects and Calorimetry (parts A.B.C)</td>
<td>99 lab text</td>
</tr>
<tr>
<td>11/05</td>
<td>Atomic Spectra &amp; Line Spectra</td>
<td>71 and handouts</td>
</tr>
<tr>
<td>11/12</td>
<td>Alkaline Earths and Halogens</td>
<td>81 lab text</td>
</tr>
<tr>
<td>11/20</td>
<td>The Geometric Structure of Molecules</td>
<td>89 lab text</td>
</tr>
<tr>
<td>11/26</td>
<td><strong>No Class – Happy Thanksgiving</strong></td>
<td></td>
</tr>
<tr>
<td>12/03</td>
<td>Boyle’s law and Charles’ law</td>
<td>Handouts</td>
</tr>
<tr>
<td>12/10</td>
<td>CHECK OUT; <strong>LAB QUIZ 2</strong></td>
<td></td>
</tr>
</tbody>
</table>

Grading Scale:  
A = 93-100%  
A- = 90-92%  
B+ = 87-89%  
B = 83-86%  
B- = 80-82%  
C+ = 77-79%  
C = 73 -76%  
C- = 70-72%  
D+ = 67-69%  
D = 63-66%  
D- = 60-62%  
F = <60%

It should be noted that according to the Xavier University Catalog, a grade of “A” is earned for EXCEPTIONAL performance. This is the grading policy of the faculty of the Chemistry Department as well. Refer to the Chemistry Department web site for more information: www.xavier.edu/chemistry/dept_policies_grading.cfm

Academic Misconduct Policy: A grade of zero will be given to any student violating the University Academic Honesty Policy. The student may appeal according to normal university procedures as stated in the University Catalog.

Special Accommodations: It is the responsibility of the student to inform the instructor of any individual medical or other conditions that may require special attention or accommodations at the beginning of the semester. Reasonable consideration will be given for these conditions. Please visit the LAC for assistance and further information.

Overview of course: This is a laboratory course, which will serve to exemplify concepts that are covered in the lecture class. The student will learn to recognize and manipulate basic laboratory equipment, observe, record and interpret data, and prepare written laboratory reports that are clear, concise, and accurate.
**Class Policies**

**Attendance:** Attendance is mandatory for all class meetings. Only documented illness and family/personal emergencies will be considered excused absences. 5 points will be deducted at the end of the term for each unexcused absence. Missed labs may be made up at the instructor’s discretion within 7 days, up to a maximum of **TWO** missed labs for the semester. Often, you may make the lab up in another Chem 161 class; there are classes scheduled every day, sometimes twice a day. However, if you cannot or do not wish to make the lab up, you may hand in the pre-lab and ASA the next week, and you will receive up to 25 points for the lab. Otherwise, a zero will be assessed.

**Due Dates:** Lab reports are due one week after the lab is performed. Late Labs are accepted only one week late, and with a 20-point penalty.

**Pre-Labs:** Before coming to class, please prepare a pre-lab. The pre-lab consists of a short summary of the objectives of the lab, a summary of the procedure (NOT a rewrite of the steps), and what you expect to learn from the lab (personal learning goal). The pre-lab is due at the **beginning** of the class. The pre-lab will serve as the cover page to your formal lab report. Please complete the Advanced Study assignment (ASA) as well before you arrive at lab. This is found in your lab manual. I will check to be sure the ASA’s are completed each week. **If the pre-lab and the ASA are not completed, you may not perform the lab that week until BOTH the pre-lab and ASA are completed.**

**Lab reports:** The lab reports must include: the pre-lab, the completed ASA, all observations, measurements, calculations, conclusions (summary of results and justification of your results supported by your data and observations), and answers to any post-lab questions. Any data tables required by the text are also required. Finally, a statement regarding if and how you met your personal learning goal is required. A word about erroneous entries: If you make an error, simply place a single line through the erroneous entry, and write the correct entry next to it. Example:

The thermometer read 35 degrees F 40 degrees C. Initial and date the corrected entry.

**Attire and Lab Safety:** Laboratory safety is very important. Safety glasses/goggles, long pants and fully covered feet (shoes or sneakers only) are required. Please tie back long hair. No food, drink, or gum is permitted in lab. Lab aprons are available, as are gloves. You will not receive credit for any lab in which a safety infraction is committed.

**Please note:** The schedule and procedures in this syllabus are tentative and are subject to change if conditions warrant. Reasonable notice will be provided.