CH142, Spring 2015: Section B Lecture Syllabus

Section B
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Office hours: open or by appointment

Section A
Instructor: Rebecca Conry
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Course webpage: https://wiki.colby.edu/display/ch142

Required course materials:
• Textbook: Chemistry (5th Ed.) Olmstead and Williams
• Calculator: Specified at the bookstore
• Sapling Learning access
• Laboratory notebook: Bound (non-carbon copy, non spiral) notebook

Course objectives and learning goals:
1. For students to deepen their appreciation for the relevance of chemistry, not just as it pertains to scientists, but also as a facet of liberal learning.
2. For students to gain a broad understanding of chemistry that leaves them prepared for organic chemistry and beyond.
   a. To strengthen communication skills using the nomenclature used by chemists.
   b. To learn the basic principles of mass balance and chemical equilibria.
   c. To understand the fundamental kinetics and thermodynamics that govern chemical reactions.
3. For students to sharpen their quantitative skills in a scientific context.
4. For students to improve skills in solving problems that involve the integration and synthesis of new knowledge and to master the interface between narrative and mathematical problem solving.

Grading:
• Exam 1 (18%)—Wednesday, March 4th from 5:00-7:00 PM in Keyes 105.
• Exam 2 (18%)—Thursday, April 2nd from 5:00-7:00 PM in Keyes 105.
• Exam 3 (18%)—Tuesday, April 28th from 5:00-7:00 PM in Keyes 105.
• Final Exam (26%)—Cumulative (date, time, and room to be assigned by registrar)
• Laboratory (20%)—Attendance is mandatory. You must pass lab to pass CH142. For more information on the Lab, please visit the CH142 webpage.

Lectures meet:
Section A  M-W-F — 9:00-9:50 in Keyes 105
Section B  M-W-F — 10:00-10:50 in Keyes 105
Anticipated course topics and approximate schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>General topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/4</td>
<td>Solutions and Colligative Properties</td>
<td>12</td>
</tr>
<tr>
<td>2/9</td>
<td>Chemical Equilibria and Le Chatleier’s Principle</td>
<td>14</td>
</tr>
<tr>
<td>2/16</td>
<td>Chemical Kinetics</td>
<td>13</td>
</tr>
<tr>
<td>2/23</td>
<td>Reaction Mechanisms and Catalysis</td>
<td>13</td>
</tr>
<tr>
<td>3/2</td>
<td>Weak Acids and Bases</td>
<td>15, 20</td>
</tr>
<tr>
<td>3/9</td>
<td>Buffers and Titrations</td>
<td>16</td>
</tr>
<tr>
<td>3/16</td>
<td>Solubility Equilibria</td>
<td>16</td>
</tr>
<tr>
<td>3/23</td>
<td><strong>Spring Break</strong></td>
<td></td>
</tr>
<tr>
<td>3/30</td>
<td>Coordination Chemistry</td>
<td>19</td>
</tr>
<tr>
<td>4/6</td>
<td>Thermodynamics</td>
<td>17</td>
</tr>
<tr>
<td>4/13</td>
<td>Spontaneity and Gibbs Free Energy</td>
<td>17</td>
</tr>
<tr>
<td>4/20</td>
<td>Oxidation-reduction chemistry</td>
<td>18</td>
</tr>
<tr>
<td>4/27</td>
<td>Electrochemistry</td>
<td>18</td>
</tr>
<tr>
<td>5/4</td>
<td>Batteries, Fuel Cells, and Electrolysis</td>
<td>18</td>
</tr>
</tbody>
</table>

Departmental policies:

1. **Course Policies and Academic Integrity**
   
   The Chemistry Department policies regarding exams, attendance, and academic honesty will apply to this course. This information is available on the department website at: [http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/](http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/). You are encouraged to study and discuss course material with other students. However, anything you submit for a grade (including online homework and laboratory assignments) must be solely your own work. If you are unsure about what constitutes academic dishonesty in this course, it is safest to check with your Instructor first.

2. **Extra help**
   
   Please see Professor Rice or Conry as soon as possible if you have any questions about course or lab material. In addition to your professor, help is also available at the Chemistry Help Center, staffed by experienced and knowledgeable chemistry majors, which is open four evenings per week in Keyes 104 (M-Th, 7:30-9:30). These students will be happy to answer questions and help with problems. If you feel the need for further help (i.e. after you’ve tried using the Chemistry Help Center and such), tutors are available—see Lisa Miller (Keyes 310; lmmiller@colby.edu) to make arrangements.

3. **Exams**
   
   There will be three one-hour exams this semester (see dates above) and a final exam during the exam period. Exam questions may come from lecture, lab, the text, and/or homework and will be a mix of short answer and numerical problems. Please note that you must show your work on arithmetical problems for full credit – partial credit is usually available. There will be practice exams available on the course webpage. These practice
exams give you additional practice and let you gauge typical lengths of exams, but are not intended to serve as the primary resource for exam preparation. The actual exam will be, at most, only somewhat similar to the practice exam. Solutions to practice exams will be posted in advance of the exam review sessions, which will be held in class.

There will be no make-up exams. If a student anticipates being away for a College activity on the evening of an exam, the Instructor will try to make accommodations, such as having the exam administered by an athletic coach. It is the responsibility of the student to let the Instructor know, well in advance, of any potential conflicts and to make the necessary arrangements. Students who suffer a (verified) serious illnesses or family emergency will be excused from the exam. The grade for an exam missed due to an excused absence will be calculated based on performance on the other exams. Accommodations for other, non-college related activities, will not be considered. Should you miss an exam without verified medical cause or other prior approval, you shall receive a zero for that exam. Departmental exam policy can be found on the website: http://www.colby.edu/chem/about/chemistry-attendance-and-exam-policy/

Some students may have approval from the Dean of Students' Office for time extensions on exams. It is the responsibility of the student to communicate arrangements made with the Dean of Students' Office to the Instructor at the start of the semester. The Instructor will be unable to make any accommodation if these procedures are not followed.

4. Homework assignments

Homework assignments will be administered through Sapling Learning (see course website for more information). Homework in CH142 can only positively impact your grade. Here's how it works – for each exam, the higher of following two scores is recorded: (1) 100% of your exam grade or (2) 80% from your exam grade and 20% from your homework scores for the problem sets relevant to that exam (homework grades for each exam are retrieved from Sapling Learning on the exam day). Doing homework will therefore help you better learn the material to earn a higher exam grade and will raise your exam score if your homework grade is higher than your exam score. Homework assignments will typically be due each class day at 9 AM. Cumulative homework assignments will also be assigned preceding examinations. Please see the course website for timely details.

The key to success in this course is to work through lots of problems without looking at an answer key. It is highly recommended that you do “pencil and paper” problems and not just the Sapling Learning problems, given that the exams are completed by hand. Also, just knowing how to approach a given problem is not necessarily enough. Additional problems may be necessary to reach the point at which completing a set of problems can be accomplished within the timeframe of an exam. Unless you have had extensive exposure to the material already, you will probably need to do more than the assigned problems to succeed in CH142.