General Information
CH 116

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Office hours, spring 2010:
Mondays 12 to 2 PM
Fridays 12 to 1 PM
For other times e-mail me to set up an appointment but do not just talk to me in the class,
always confirm it with an email so that I can make a note of it.

Text book
The text for this course is Brown, LeMay, and Bursten’s Chemistry: The Central Science,
11th Ed. The book is available in the bookstore as a special bundle that includes the
Student Solution Manual to the text.
In CH 116 we will be covering chapters 10 through 20.

Lecture:
The lectures, not the book, constitute the principal source of material for the tests. The
projected overheads that I will use in class are available for print-out on the website.
Most students find it useful to have these in hand during the lecture. However, much of
the content of the lectures are not in these overheads. Therefore, it is imperative that you
faithfully attend lectures and take good notes.

Discussion:
Discussions are intended to give you opportunities to deepen your understanding of the
material, to explain homework problems, and to prepare you for the tests. Homework is
not collected or graded, and worked-out answers are available. Although you will not
turn in your homework, you should always attempt to do the assignment before coming
to discussion.

The discussions will start only in the second week of the semester. Any week we have a
holiday we will not have discussions.

OWL (Online Web-based Learning) system
This is an online homework system that allows multiple tries at questions, with
the questions changing randomly. The system can be accessed at
http://owl.oit.umass.edu Please be sure to check the due dates for the various
sections. Note that the assignment numbers on OWL do NOT correlate with the
chapter numbers in the textbook. Look at the topics instead of the numbers. For any
problem with your OWL account send an email to the address on the website. Prof.
Schwartz looks after that and she will respond to you.
Calculators:
Calculators may be used in all aspects of this course, including examinations. You may find it useful to have a more sophisticated calculator, such as the Texas Instruments TI-86 or similar models. However, during a test you may not use any calculator or device that is capable of communicating with any other calculator or device. Anyone bringing such a device to a test will receive a zero for the test. Be sure you know how to operate your calculator before you have to use it in a test situation. Before coming to a test, be sure your calculator is working properly and that it has fresh batteries (if needed) or will work in low light (if solar powered). You may bring a back-up calculator to the tests, calculator sharing is not allowed during a test.

Tests and Academic Honesty:
The dates for the hour examinations are listed at the end of the syllabus. Tests will be given during the normal lecture hour.

If you cannot attend a test for some legitimate reason (e.g., debilitating illness, death in the immediate family, or car accident on the way to the university) you must call me or send e-mail in advance of the test or as soon as possible under the circumstances. In cases of real emergency you might be eligible to start the test late or to be excused from the examination. Absence without notice and/or legitimate cause will result in a score of zero for the test. Make every effort to arrive on time to each test. If you arrive late, you will not be given extra time, except in special circumstances. No one arriving late to a test will be allowed to take the exam after the first paper has been handed in, unless special arrangements have been made in advance.

You must take every test. During a test you are allowed to have pencils, erasers, and your calculator (with extra batteries, if needed) – nothing else. You may not have notes, open books, or scrap paper.

Academic dishonesty will not be tolerated and may result in your failing the test, failing the course, or being expelled from the University, depending on the circumstances.

Test Dates:
TBA

The tests will be on the specified dates. The test will cover the chapters between the tests and will not be cumulative. The final exam will be cumulative and will cover all the chapters. There will be four (4) in-class tests, to be given on the dates listed above and a three hour final. There will be no make up tests. The test I allow you to drop is for the unforeseen medical or personal problem you may have. If you are lucky enough to not have issues you can drop the lowest grade. Do not drop any test for avoidable reason and find yourself with a medical situation. I will not excuse a second test for medical reason if you have already missed a test for any other reason. If you are gravely unwell on two test dates then I will need a medical certificate from your doctor, for both the illnesses.
**Final Examination**
The final exam date is determined by the university, be prepared to take the final on the specified date, do not make plans before you know the exam date. There will be no exceptions to this. Final exam is mandatory for everyone.

Please do not make any reservations on the snow days decided by the university, I will not take the exam again.

**Test Material**
The test questions are generated from the lecture material, homework and the text. You will see some direct questions from the homework in your tests. Most of my long answer questions come from the solved examples, practice questions in the book or homework.

In addition, some questions are challenging and thought provoking - you will need to apply concepts and think critically in order to solve them.

Make an effort to arrive on time for each test. If you arrive late, you will not be given extra time. You will not be allowed to take the test if even one student has left the hall.

Test answers are posted on the website after grading is completed.

The Test will consist of about 20 to 25 multiple choice questions which will be about 70% of the grade and two to three short answer questions which will be about 30% of the overall grade. This is only a guideline and will vary from test to test. If I feel the need I can totally change the format and give only long answer problems.

**Grades:**

<table>
<thead>
<tr>
<th></th>
<th>%</th>
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<tbody>
<tr>
<td>Class Attendance</td>
<td>5</td>
</tr>
<tr>
<td>Disc Attendance</td>
<td>5</td>
</tr>
<tr>
<td>Three tests + Final</td>
<td>90</td>
</tr>
<tr>
<td>worth two tests</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
<tr>
<td>OWL Extra Credit</td>
<td>5</td>
</tr>
<tr>
<td>FSG Extra Credit</td>
<td>5</td>
</tr>
</tbody>
</table>

**Attendance**
The class attendance will be generated from

1. The questions that I will ask you to either do in the class or bring back as homework. There will be no make up for these. These are there to ensure you attend the classes. These will be totally random and will not be given every day.
2. You are expected to purchase the iclicker and create an account for yourself on its website. If you have not taken Ch115 with me and do not have an iclicker you should purchase it from the university book store. I will start taking attendance with it from Monday.

The discussion attendance will be taken every day. You are responsible for making sure you are marked present. Discussion will start on the second week of class.

You will be allowed to miss **two each of the class and discussion attendance without losing points.** The attendance comes in handy at the time of grade calculation as there you can get all the points just by being present.

**Facilitated Student Group (FSG)**

FSG is a group instruction provided by the Center for Student Success. It is meant for students who are having difficulty with the subject. Attending this at a regular basis you can get 5% extra credit in the overall grade. This credit will be available only to the students who will attend at least 90% of the sessions. Casual visits will not get you credit. Garvey McKenzie is teaching the group and will be available after class in the first couple of days to meet with you.

The probable dates/ times he is thinking of are

- Mondays: 2-4
- Tuesdays: 10-12 or 3:30-5:30
- Thursdays: 10-12

**Syllabus:**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapters</th>
<th>Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gases</td>
<td>Chapter 10</td>
<td>(all sections, in order)</td>
</tr>
<tr>
<td>Intermolecular Forces, Liquids, and Solids</td>
<td>Chapter 11</td>
<td>(omit section 11.7)</td>
</tr>
<tr>
<td>Physical Properties of Solutions</td>
<td>Chapter 13</td>
<td>(omit section 13.6)</td>
</tr>
<tr>
<td>Chemical Kinetics: Rates and Mechanisms</td>
<td>Chapter 14</td>
<td>(omit &quot;Second-Order Reactions, pp. 589-591)</td>
</tr>
<tr>
<td>Chemical Equilibrium</td>
<td>Chapter 15</td>
<td>(all sections, in order)</td>
</tr>
<tr>
<td>Acid-Base Equilibria</td>
<td>Chapter 16</td>
<td>(all sections)</td>
</tr>
<tr>
<td>Additional Aspects of Aqueous Equilibria</td>
<td>Chapter 17</td>
<td>(omit sections 17.4-17.7)</td>
</tr>
<tr>
<td>Thermodynamics</td>
<td>Chapter 19</td>
<td>(all sections).</td>
</tr>
<tr>
<td>Electrochemistry</td>
<td>Chapter 20</td>
<td>(omit sections 20.7 &amp; 20.8)</td>
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**Homework:**

The problems within the chapter are a good place to start. These will reinforce the previous material. Selected problems from the end of each chapter will be assigned [see the course website]. Both of these represent the minimum number of problems; of course, you are encouraged to do other problems at the end of the chapter as well.
No amount of reading or outlining is a suitable substitute for problem solving! A “Study Guide and Solutions Manual” is available; however, reading the correct answer will not lead to mastery! Do not use the solutions book until you have really tried the problem. Homework will not be turned in or graded but it is the rare student indeed who does well on exams without previously doing problems.

Dr. Isaac Reif is teaching the evening class. You need to get in touch with him with any questions related to the evening course.