CHM 116-B  
Spring 08

Professors  
Dr. Amy Davidson  Office:  BRWN 3130C; phone: 45291; adavidso@purdue.edu  
Dr. Ei-ichi Negishi  Office:  WTHR465B; phone- 4-5391; negishi@purdue.edu

Lectures  
Monday and Wednesday each week (Fridays as announced)  
2:30 PM and 3:30 PM in WTHR 200

URLs  
Blackboard Vista 4  
Course title in BbVista4 and OWL:  CHM 116-B  
http://www.itap.purdue.edu/tlt/blackboard

OWL On-Line  
http://owl.thomsonlearning.com

Academic Success Center  
http://www.cla.purdue.edu/asc

PU Gen Chem Help Site  
http://www.chem.purdue.edu/gchelp

Course Supervisor  
Dr. Susan C. Nurrenbern, BRWN 1144, phone: 49-40823; nurrenbe@purdue.edu

Things That You Must Do During Week #1

  Registration details are on page 15 of this packet of information.
- Complete the Introduction to OWL exercises.
- Read all the information in this course packet.

Required Materials


- A carbonless laboratory notebook. (If you have sufficient space in the lab notebook you used for CHM 115, it is acceptable to use that notebook for CHM 116.)

- **A simple battery operated scientific calculator** with exponential, logarithm and square root functions will be needed for exams. Alphanumeric and programmable calculators will not be allowed for exams.

- **Approved safety goggles** are available at the bookstores, outside WTHR 200 during the first two weeks of classes or from the storeroom on the 1st or 2nd floor in BRWN.

- A Sharpie (black, permanent ink) for marking lab glassware

- A virus-free electronic storage device for lab data.

- A padlock for your assigned lab drawer. (beginning Week #4 in lab)
Sources of Help and Answers for Students in CHM 116

Professor You can go to the professors’ office hour or make an appointment with the course professor. E-mail addresses are on the cover page of this packet of information.

TA Office Hours, WTHR 116 Each CHM 116 TA will hold a one-hour office hour each week where any CHM 116 student can go to get help with chemistry from any CHM 116 TA at no charge. This is about 30 hours each week where free help is available from the CHM 116 staff. If you are having a problem with some aspect(s) of the course, go first to your graduate instructor. He/she wants to help you and is available for consultation both at specific hours and by appointment. However, he/she is not going to “spoon-feed” chemistry to you. Feel free to go to the office hours with a classmate or small group if you feel uncomfortable going alone or to go to the office hour of some other CHM 116 TA.

Chemistry Resource Room, WTHR 117 The staff in this area can answer many of your chemistry related questions but going to your professor or a CHM 116 TA is recommended. The Chemistry Resource Room is also an area where you can study alone or with others. Various kinds of help for all general chemistry students are available. The resources include:
  1. Free help and tutoring from the staff assigned to this area
  2. A variety of course materials (e.g., lecture notes, exam answers, the course text, and lab manuals)
  3. Numerous audiovisual and autotutorial programs on chemistry

A student ID card is required to check out most of the materials in the Chemistry Resource Room. Open hours will be posted outside WTHR 117.

PU General Chemistry Help Site http://www.chem.purdue.edu/gchelp/
Visualization and Problem Solving for General Chemistry

Academic Success Center http://www.cla.purdue.edu/asc/

General Chemistry Office, BRWN 1144, 49-45250 The staff in BRWN 1144 handles all the administrative details associated with the course. For example, go to this office to change your schedule (weeks 2 and 3), to get signatures on university forms such as Form 23, to report absences and complete absence forms. Staff members are there to help you but they must also abide by the professors’ and university’s rules.

Course Coordinator/Supervisor The course supervisor, located in the General Chemistry Office (BRWN 1144) will handle policy issues or problems in the course. The course coordinator is also responsible for maintaining student grade records.

Disability Accommodations
If you require accommodations to access course activities or materials, the accommodations must be described and approved by Adaptive Programs, Room 830, Young Hall, 302 Wood Street. To implement accommodations you must follow the instructions listed as “Responsibilities of the Student” in the letter prepared by Adaptive Programs. Give one copy of the accommodation letter to your professor, not your TA. Take another copy to the CHM 116 course supervisor in BRWN 1144 within the first three (3) weeks of the semester to discuss your accommodations. If you have accommodations identified and approved during the semester, you are encouraged to initiate a meeting with the CHM 116 course supervisor to discuss the accommodations within one (1) week of the date of the letter. Timely notification of the CHM 116 course supervisor is critical for timely implementation.
ADVICE FROM YOUR PROFESSORS

A University is like a Health and Fitness Center for your Brain

When you pay tuition to an academic institution such as Purdue, it is like paying fees to join a Health and Fitness Center. Purdue is a place to exercise and develop your brain “muscle”; health clubs or fitness centers focus on exercising other muscles of your body. Your membership in a “mental exercise club” such as Purdue gives you the opportunity to take advantage of the resources Purdue makes available to exercise your brain just as joining a health club gives you the opportunity to take advantage of the health club’s equipment and resources. Simply being a member of either “club” does not guarantee success. As with a health club, the benefit you gain from a “mental exercise club” depends on the amount, and more importantly, the quality of effort you exert.

How Do I Learn From Lectures?

You can’t learn from lectures if you do not attend them or do not think about the information as it is presented during lectures.

You are responsible for all material covered and announcements made in lectures.

Before Class
- Complete the assigned reading and review the notes from the previous class.
- Download and print the student notes for lecture from the course Bb Vista4 site.

During Class
- Write the date of the lecture on the student notes at the beginning of class if it is not on the first slide.
- Write information that is discussed in lecture but is not on the notes. The professor will give more information than is on the notes.
- Try to answer all the questions that the professor may present.
- Write down each step of every problem or example even if you do not understand the step. You can always ask about it later.
- Write a question mark next to things you don’t understand so you can return to them after class.
- Use shorthand or abbreviations so that you can write quickly, but understandably.

After Class
- Review your notes while things are still fresh in your mind.
- Check your text in order to understand those items that you did not understand and marked in lecture. If necessary, use office hours with any CHM 116 TA to help you.
- Never miss lecture. Chemistry is cumulative. What is presented tomorrow depends upon your knowledge of what was covered today. If you will miss class, then get a friend to take notes for you.
- It will take you at least two to four hours out of class for every hour we spend in class in order to study and learn the material. This means about 6 - 8 hours of distraction-free studying and working with chemistry each week. You may spend this time working on your lecture notes,
Advice From Your Professors

reading the text, studying the required material, doing OWL homework, studying for exams, or other things. You may find yourself spending more than 9 hours per week if your math skills need improvement or if you took a chemistry course a few years ago. But if you are committed to your goals and dreams then dedicate yourself to spending the necessary time to study and do well.

• Copies of lecture notes take by a graduate instructor will be available in the Chemistry Resource Room (WTHR 117) within a day or two following the lectures. However, photocopies of these notes are not a substitute for attending lectures.
• Audio recordings of the lectures can be downloaded from the Boilercast website.

Finally, your ability to understand what you are currently learning may depend on your already having mastered earlier material. So, study chemistry every day and correct your mistakes as they occur.

When Should I Do Homework?

*Your assigned homework is considered to be a minimum requirement for keeping focused and learning the material in each chapter. You should practice solving additional problems from the text similar to those assigned and some of additional problems will be available on OWL.*

The following guidelines should be helpful if you want to do well in a technical course such as CHM 116 which will probably involve relearning concepts or learning concepts that you did not have in your high school chemistry course. Learning new material requires constant reinforcement which means you may have to change your study habits.

• Do some work in chemistry every day. Work at least two chemistry problems each day. If you are drawing a blank about the problem after 10-15 minutes, go on to another a problem. Seek help from a CHM 116 TA the next day during office hours. After a day or so, solve related problems in the text.

• Even though OWL usually asks for your final answer only, it is important that you write down your complete problem solutions. You can fool yourself into believing your understand if you do not write your steps. You must practice if you are going to be proficient and efficient during exam times!
### Lecture, Lab and Exam Schedule for CHM 116-A and CHM 116-B, Spring 2008

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture</th>
<th>Lecture Topics for Spring 2008</th>
<th>Week</th>
<th>Lab Schedule for CHM 116-A and 116-B</th>
<th>Exams</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1/7</td>
<td>1</td>
<td>Chemical Equations &amp; Stoichiometry [Ch 4 ]</td>
<td>1</td>
<td>Check-in; Safety Review Basics of Excel [complete in lab] [Ch 1]</td>
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<tr>
<td></td>
<td>1/9</td>
<td>2</td>
<td>Chemical Equations &amp; Stoichiometry [Ch 4 ]</td>
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<tr>
<td>2</td>
<td>1/14</td>
<td>3</td>
<td>Kinetics [Ch 15]</td>
<td>2</td>
<td>A Chemical Oscillation Reaction [Ch 2]</td>
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<tr>
<td></td>
<td>1/16</td>
<td>4</td>
<td>Kinetics [Ch 15]</td>
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<tr>
<td>3</td>
<td>1/23</td>
<td>5</td>
<td>NO CLASSES (MLK Day)</td>
<td>3</td>
<td>Rate Law and Activation Energy [Ch 3]</td>
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<td>Kinetics [Ch 15]</td>
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<td>4</td>
<td>1/28</td>
<td>6</td>
<td>Kinetics [Ch 15, p. 535]</td>
<td>4</td>
<td>Le Chatelier’s Principle [Ch 4]</td>
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<td>Catalysts in Industry &amp; the Environment Enzymes -- Biological Catalysts</td>
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<td>1/30</td>
<td>7</td>
<td>Equilibrium [Ch 16]</td>
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<tr>
<td>5</td>
<td>2/4</td>
<td>8</td>
<td>Equilibrium [Ch 16]</td>
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<td>Equilibrium Concentrations [Ch 5]</td>
<td>Exam I</td>
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<td>2/6</td>
<td>9</td>
<td>Equilibrium: Haber-Bosch Process [Ch 16, p 757, p 787]</td>
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<td>February 5 (T) 7:00 PM - 8:00 PM</td>
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<td></td>
<td>2/13</td>
<td>11</td>
<td>Acid-Base Chemistry [Ch 17; sec 5.3, 5.4, 5.9]</td>
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<td>7</td>
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<td>Acid-Base Chemistry &amp; Equilibrium [Ch 17]</td>
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<td>Acid-Base Equilibria (Part I) [Ch 6]</td>
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<td>Acid-Base Equilibrium [Ch 17]</td>
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<td>8</td>
<td>2/25</td>
<td>14</td>
<td>Titration [sect 18.3; 5.10]</td>
<td>8</td>
<td>Acid-Base Equilibria (Part II) [Ch 6]</td>
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<td></td>
<td>2/27</td>
<td>15</td>
<td>Buffers &amp; Blood Chemistry [Ch 18.2]</td>
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mid-semester
<table>
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<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture</th>
<th>Lecture Topics for Spring 2008</th>
<th>Week</th>
<th>Lab Schedule for CHM 116-A and 116-B</th>
<th>Exams</th>
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<tbody>
<tr>
<td>9</td>
<td>3/3</td>
<td>16</td>
<td>Enthalpy and Thermochemistry</td>
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<td>Enthalpy: Hess’s Law</td>
<td>[Ch 8]</td>
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<td>Enthalpy and Thermochemistry</td>
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<td>[Ch 6]</td>
<td>Exam II</td>
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<td>March 5 (W)</td>
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<td>10</td>
<td>3/17</td>
<td>18</td>
<td>Enthalpy and Thermochemistry</td>
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<td>Thermodynamics and Equilibrium</td>
<td>[Ch 9]</td>
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<td>11</td>
<td>3/24</td>
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<td>Entropy Changes</td>
<td>11</td>
<td>Acid-Base Electrolytic Conduction</td>
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<td>3/26</td>
<td>21</td>
<td>Gibbs Free Energy</td>
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<td>[sect 19.5]</td>
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<td>12</td>
<td>3/31</td>
<td>22</td>
<td>Thermodynamics and Equilibrium</td>
<td>12</td>
<td>Oxidation-Reduction Reactions/</td>
<td>[Ch 11]</td>
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<tr>
<td></td>
<td>4/2</td>
<td>23</td>
<td>The Energetics of Metabolism</td>
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<td>Oxidizing Agents and Reducing Agents</td>
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<td>[sect 19.7, 19.8]</td>
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<td>13</td>
<td>4/7</td>
<td>24</td>
<td>Electrochemical Cells</td>
<td>13</td>
<td>A Metal Ion Sensor</td>
<td>[Ch 12 ]</td>
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<td>[sect 5.7, 20.1]</td>
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<td>April 8 (T)</td>
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<td>[sec 20.6]</td>
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<td>14</td>
<td>4/14</td>
<td>26</td>
<td>Electrode Potentials</td>
<td>14</td>
<td>Lab Check-out</td>
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<td>4/16</td>
<td>27</td>
<td>Electrochemistry and Thermodynamics</td>
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<td>[sect 20.4, 20.5]</td>
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<tr>
<td>15</td>
<td>4/21</td>
<td>28</td>
<td>Electrolysis</td>
<td>15</td>
<td>No lab - compensation for night exams</td>
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<tr>
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<td>4/23</td>
<td>29</td>
<td>Isolation of the Elements</td>
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<td></td>
<td></td>
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<td>[sect 20.7]</td>
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<td>[parts of Ch 21]</td>
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<td>16</td>
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<td>Final Exam Week (4/28 through 5/3)</td>
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<td>FINAL EXAM</td>
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CHEMISTRY POLICIES AND PROCEDURES, Spring 2008

Each CHM 116 professor is aware than chemistry can be difficult material for some people to learn. At the same time each professor understands that learning chemistry is not impossible and that a variety of different teaching and learning methods may assist with the learning process. In CHM 116 you will have the opportunity to learn individually, with partners and in groups in lectures, recitations, labs and outside of class study time. Experts indicate that to adequately learn new material in college, two (2) hours of effective study outside regularly scheduled class time each week per one (1) credit hour is required. CHM 116 is a 4-credit course so this suggests that eight (8) hours per week of effective study outside of regular class time is necessary to learn what the professors want you to learn. The chemistry department provides several sources of help for you in this process at no cost. These include the professors, the CHM 116 TAs and the Chemistry Resource Room.

DETERMINING YOUR COURSE GRADE

Each of the assigned course activities for CHM 116-B are worth the number of points listed below. Before course grades are finalized after the Final Exam the following scores will be dropped:
  - Your lowest homework score
  - Your lowest lab score (of labs #2 - #12)

The total number of points (1175) for CHM 116-B are distributed as follows

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>OWL Homework</td>
<td>140 pts</td>
</tr>
<tr>
<td>Lab Projects</td>
<td>285 pts</td>
</tr>
<tr>
<td>Exams (3 at 150 pts each)</td>
<td>450 pts</td>
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<tr>
<td>Final Exam (comprehensive)</td>
<td>300 pts</td>
</tr>
</tbody>
</table>

After the Final Exam your course grade will be based on the 99th percentile score of total points as follows.

- A: \(0.90 \times (99^{th} \text{ percentile score})\)
- B: \(0.80 \times (99^{th} \text{ percentile score})\)
- C: \(0.70 \times (99^{th} \text{ percentile score})\)
- D: \(0.60 \times (99^{th} \text{ percentile score})\)
- F: \(<0.60 \times (99^{th} \text{ percentile score})\) OR if you miss or fail to complete three (3) or more of the 12 scheduled lab projects without excused absences.

You will earn an automatic grade of “F” in CHEM 116 this semester if you:

- miss three (3) or more of the 12 scheduled laboratory sessions during weeks 2–13 without excused absences.

Or

- fail to satisfactorily complete three (3) or more laboratory projects during weeks 2–13 with your team. Completion of a lab project includes the following equally important components: (a) attendance in the laboratory, (b) constructive contribution to the group’s work in the lab, (c) preparation of the lab report, and (d) completion and timely submission of a satisfactory lab report. Failure to submit a lab report and/or being dismissed from lab for noncompliance with safety regulations each count as a failure to complete lab.
ACADEMIC INTEGRITY

Your integrity is your greatest asset.

The professors in CHM 116 view academic dishonesty as a serious offense, so we hope that cheating never arises as a problem in this course. The Office of the Dean of Students publication, Academic Integrity: A Guide for Students, is available at http://www.purdue.edu/ODOS/publications.htm and is an excellent summary of expectations for Purdue students.

Consequences of academic dishonesty (that is, cheating) in CHM 116 will result in a score of zero for that activity plus a report to the Office of the Dean of Students. Academic dishonesty could result in a grade of “F” in the course with a report to the Office of the Dean of Students.

Examples of academic dishonesty (Cheating) While the following list of examples of academic dishonesty is not complete, the examples are provided for your information. If you have any questions at all about permissible behavior, save yourself some grief and ask before acting.

- Copying or possessing an unauthorized crib (written or electronic) during an exam.
- Copying from another student’s exam. Allowing another student to copy from your exam.
- Copying lab data or lab report; giving your lab report to someone else to copy. This includes files on computer disks as well as paper copies.
- Changing data for a lab project to fit the perceived answer (that is, what you think the answer should be).
- Using or reporting someone else's data in a report as if it were your own.
- Submitting a lab report or other work that you did not do.

ATTENDANCE/ABSENCES

We do NOT give make-up exams or labs. Absence forms are to be completed in BRWN 1144 for a lab or exam absence due to one of the reasons listed below.

The following will be the only acceptable reasons for missing an exam or lab.

- You have a serious, major medical illness requiring immediate, emergency medical attention. You must provide verifiable medical documentation for medical treatment of this serious illness to the course supervisor with your absence form.

- Death of an immediate family member. Complete an absence form in BRWN 1144 before leaving campus. Return with verifiable documentation for the date and location of the funeral or memorial services and your relationship to the deceased. Take the documentation to BRWN 1144 and it will be put with your absence form.

- A direct conflict with another exam, class, or required* university activity. An absence form for this type of conflict must be completed with an attached verification letter at least one week (7 calendar days) before the conflict. Do this in BRWN 1144. We will try to accommodate legitimate conflicts but you will have to take care of the paperwork before the conflict. The excuses and paperwork will not be handled or considered after the conflict has occurred.

* Club activities will not be excused unless the activity is a professional activity directly associated with your major.
CHM 116 Policies and Procedures, Spring 2008, Purdue University

If you will miss more than two (2) labs due to NCAA athletics, PMO, band, or religious activities, you must provide documentation to the staff in BRWN 1144 and change your lab section by the end of week 3 of the semester. Otherwise you will no credit for lab absences that are associated with these activities although with documentation, these zeros will not count as “failure to complete” labs.

If you miss an exam or lab for some reason that is not on the list above, i.e., an unexcused absence, that score will not be prorated.

Reporting Absences Telling your graduate instructor that you have missed or will miss a lab or exam is not sufficient. Absence forms with any required documentation must be filed in BRWN 1144.

- **Conflicts You Know About Before a Lab or Exam.** An absence form for this type of conflict must be completed with an attached verification letter at least one week (7 calendar days) before the conflict in BRWN 1144. We will try to accommodate legitimate conflicts as stated in the previous paragraphs but the excuses and paper work will not be handled after the conflict has occurred.

- **Emergencies.** If you miss a lab or exam due to a major medical emergency or death in your immediate family, then report your situation immediately to the General Chemistry Office, 49-45250. Go to the General Chemistry Office, BRWN 1144, and complete an absence form with verifying documentation within two weeks after the absence so that arrangements can be made to possibly prorate that lab or exam.

**Changing Sections** A change in lecture or lab section requires the approval of the course supervisor in BRWN 1144. Because of the processes associated with assigned lab drawers, BbVista4 and OWL enrollment we will not make a section change for students after week #3 of the semester. If you change sections after you check into a locker drawer, you must check out of your old locker drawer before checking into a drawer in your new section.

**Dropping the Course/Lab Check Out** If you drop CHM 116 after having checked into a lab drawer, it is your responsibility to check-out of your assigned drawer during the next scheduled lab period. If you do not check out immediately, then go to lab at the regularly scheduled starting time during lab check-out as listed on the lab schedule and check out of your locker drawer. You will need to be properly dressed for laboratory work and wear safety goggles through the entire lab.

<table>
<thead>
<tr>
<th>UNIVERSITY DEADLINES - Spring 2008</th>
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<tr>
<td><strong>January 18, 5:00 PM:</strong> Last day to cancel (drop) a course without it appearing on your record.</td>
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<tr>
<td><strong>February 4, 5:00 PM:</strong> Last day to cancel (drop) a course without a grade.</td>
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<tr>
<td><strong>March 17, 5:00 PM:</strong> Last day to cancel (drop) a course (with a passing or failing grade).</td>
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</table>

**Failure to Check-Out of Lab** For anyone who does not check out of a lab locker drawer by the scheduled or designated time:

- his/her padlock will be cut (this may also happen for students who arrive late on check-out day)
- he/she will be charged a $45 fee and
- he/she forfeits the right to determine the acceptability of all locker drawer equipment.
COURSE ACTIVITIES

Lectures
You will be responsible for any announcements or course changes that are made in all lectures. Lecture notes taken by a graduate instructor will be available in the Chemistry Resource Room, WTHR 117. Audio-recordings of lectures will be available at the Boilercast website [http://www.itap.purdue.edu/boilercast].

Cell phones, pagers, ipods or other electronic devices not being used for instruction purposes are distracting for everyone in a learning situation. Please respect your colleagues and turn off this equipment in lectures as well as in recitations and labs.

Exams
Attendance is required. We do not give make-up exams in CHM 116.

Before Exam I, you will receive an exam seat assignment for the entire semester. It will be posted on the CHM 116: Exam Seating BbVista+ course. Take your seat assignment, a calculator with exponential, logarithm and square root functions, and a #2 lead pencil with you to the exam. You may not share a calculator with another student.

- If you are absent from an exam, follow the procedures for reporting absences.
- Students will not be allowed to leave the examination area during the first 15 minutes of the scheduled exam times. Students may arrive late for the exam during this first 15-minute window. After the first 15 minutes, no one will be allowed to enter the examination area.
- If you arrive late for an exam (within the first 15-minute window) you will not receive additional time to complete the exam.

Hour Exams
Three 60-minute, multiple-choice, evening exams will be in Elliott Hall of Music.

Exam I: February 5  7:00 PM - 8:00 PM  Elliott Hall of Music
Exam II: March 5  6:30 PM - 7:30 PM  Elliott Hall of Music
Exam III: April 8  8:30 PM - 9:30 PM  Elliott Hall of Music
Final Exam: to be announced

Wait until you know the date of the final exam before you make travel plans that might conflict with the exam. Final exams will not be rescheduled to accommodate your travel plans.

The final exam will be a two-hour exam. University policy on Final Exams states: “Students scheduled for more than two (final) examinations in one calendar day are entitled to reschedule any examination in excess of two... It is the responsibility of the student to make necessary arrangements before the last week of regularly scheduled classes.”

On-Line Homework
Each on-line weekly assignment will consist of required questions and possibly optional questions. Required questions will contribute to your homework point total, optional questions will not. However, optional questions and tutorials can be used to help understand how to work problems or to practice and review for exams. Assignments are to be completed on-line from the OWL website at http://owl.thompsonlearning.com.

Instructions for Registering and Using OWL are on pages 15 - 17 of this packet.
You will have a maximum of five (5) attempts to complete each homework assignment before the listed due date. Each time you access a question and close it without entering an answer, you are logged in as having completed an attempt. Homework will be scored and recorded on-line so there will be no hand grading or regrading of homework. Deadlines for completing the on-line assignments will be listed on the OWL Assignment page.

If you miss the posted homework deadline, you will be able to continue working on the problems but you will not receive points for work done after the deadline.

Recitation
You will be responsible for any information or problems that are done in these scheduled weekly sessions. These sessions provide you with the opportunity to ask questions and work with your graduate instructor and classmates in small groups. Recitation is neither the time nor place to begin working on your homework assignments. You will have time to ask questions and check your homework so take your homework questions with you to recitation. However, 50 minutes is not sufficient time to answer all the questions that all students may have. If you have difficulties or have questions about certain problems, you should seek help from your professor or a CHM 116 TA during scheduled office hours.

Please show respect for your classmates and turn off cell phones and other electronic equipment that can be distracting to others in a learning environment.

Laboratories
Attendance is required since CHM 116 is a laboratory course. You will not be able to make up a missed lab, but you will be responsible for the material covered in any lab you miss since questions based on the lab projects may appear on exams. If you miss a lab, follow the procedure for reporting absences.

You are expected to arrive on time, properly dressed for lab work and prepared when you arrive. If you arrive at lab more than 10 minutes late or improperly dressed, then you will be considered unprepared to do the lab work and will be asked to leave the lab. You will not get a grade for that lab and it will count as a fail to complete lab.

The graduate instructors must close the laboratories by the end of your scheduled lab period (that is, 10:20 AM, 2:20 PM or 5:40 PM). At that time all equipment must be cleaned and put away and lab drawers locked so the lights can be turned out and the doors closed.

Lab Reports Each laboratory report is due at the beginning of lab one week after lab work has been done except where otherwise noted. All reports must be typed on one side of white, unlined paper. All graphs must be computer-generated using a spreadsheet and graphing program such as Microsoft Excel. Additional information about the format for lab reports is in your lab manual.

If any student(s) forfeits the responsibility of writing a report to other team members and those team members change or falsify data or plagiarize parts of the report, then ALL team members share the negative consequences associated with academic dishonesty.

Late Lab Reports Fifty percent (50%) of the maximum points, will be deducted from the score for ALL team members for all late lab reports. No laboratory reports will be accepted and graded beyond one week after the report is due. It is the group's responsibility as a team to ensure that everyone whose name is on the report participated in preparing it.
Grading Criteria for Lab Reports  Your lab reports will be graded primarily on correctness and completeness. The following guidelines will apply
- The report is complete.
- The report is organized correctly.
- The presentation is legible and logical. Headings and subheadings are used to identify or describe the contents of a particular section. Graphs and tables have titles to describe the contents. Sentences are complete.
- The data analysis and calculations have been done with the data your team collected during the lab period.
- The data analysis, including units of measurements and significant figures, are correct.
- Chemical terms and concepts have been used correctly throughout the report.
- Your conclusions and results are consistent with your data and calculations.

Grading Questions  If you have a question about the score on any of your lab reports, first ask your graduate instructor for clarification. If the graduate instructor cannot answer your questions, you may take the graded lab report to the course supervisor in BRWN 1144 for possible regrading. You will need to do this within one (1) week (that is, 7 calendar days) after the graded paper has been returned to the class. Your work will have to have been typewritten or written in ink for a possible regrade. The course supervisor will regrade the entire paper, not just the part where you think an error has been made.
Safety Policies for Chemistry Labs

The safety of everyone in the active learning environment of a lab is taken seriously and your failure to comply with the safety regulations will affect your grade. Complying with safety regulations is simply a minimum requirement for being allowed to work and learn in a chemistry lab.

Compliance With the Safety Regulations is NOT a Matter of Personal Choice or Opinion. Compliance is a REQUIREMENT.

Safety Goggles  You must wear appropriate and approved safety goggles (not safety glasses) in the laboratory at all times, including the day of check-out. You will be dismissed from lab and lose all credit for an experiment or lose your opportunity to check out if you do not wear your goggles as required. Safety goggles may be purchased at the local bookstores, the chemistry storeroom, or outside of WTHR 200 during the first week of the semester.

Appropriate Clothing  Chemistry department regulations state that you must wear clothing in the laboratory that protects your skin from your neck to your ankles and feet when you are sitting, standing or reaching. Shoes that cover your feet entirely are required.

Unacceptable clothing includes, but is not limited to: sleeveless or bare midriff tops, pants that are ripped or have holes in the fabric that expose your skin, shorts, short skirts, open-toed and/or open-heeled shoes and sandals (with or without socks).

Gloves  Gloves serve two purposes: they protect your skin from potential contaminants and keep any potential contaminants inside the lab. You will be required to wear protective gloves for many lab activities. When you leave a lab, take the gloves off and throw them away. Get new gloves when you return to lab.

Contact Lenses  Contact lens wearers are encouraged to wear glasses in the laboratory. If you wear contact lenses in the laboratory, you must inform your graduate instructor of this at the beginning of the semester.

Hair  If your hair is longer than shoulder length you must tie it behind your head in order to avoid accidental contact with open flames or chemicals that might be on the lab bench. Rubber bands are available in the laboratory.

Food and Beverages  You may not eat, drink, or bring food into the laboratory.

Electronics  The only electronic equipment allowed in the lab is that which is being used for instruction.

Handling and Disposal of Hazardous Materials  You will be required to follow the instructions printed in your lab manual or given to you by the graduate instructor or others for appropriate handling of hazardous materials.
HOW TO USE OWL
CHM 115, Purdue University, Spring 2008

We will be using OWL for the second semester of General Chemistry this spring. You will need to get an OWL access as part of the course to complete your electronic homework. Please see which of the three scenarios below applies to you and follow the directions to gain access.

If you used OWL last semester and purchased a 12 month code you still have access. Simply log in at http://owl.thomsonlearning.com and choose Add/Switch link to put yourself into the correct class section. If you have forgotten your login information use the Login Help on the login page to have it resent to you.

If you used OWL last semester and purchased a 6 month code you will be running out of access soon. Go to http://owl.thomsonlearning.com/partners/thomson/epinThomson.html and click on the Purchase Access Code link next to the General (1 Semester) with the white textbook cover. You will be emailed your code. (You can also onto http://www.ichapters.com and use the My Stuff link at the upper right corner to retrieve your code.) Once you have your access code, you will need to register with it to extend access.

1. Go to http://owl.thomsonlearning.com and choose General under the Login and Register Here heading.
2. Click on your textbook. (Chemistry & Chemical Reactivity, 6e; Kotz, Treichel, Weaver; e-Book)
3. Choose Purdue University-West Lafayette, Indiana.
4. Click on the blue arrow under Student Registration. Choose your section (CHM 116, Spring 08, Purdue University: A, B or CASPiE).
5. Fill in the form. Be sure to enter the user name, login, and password that matched your previous OWL registration and your newly purchased code in the Access Code space.

It is very important to use your previous login name and password so that your existing OWL access is extended rather than creating a new login. Use the link on the login page to have them sent to you if you have forgotten

6. Confirm that your information is correct.
7. Press Continue.

If you are using OWL for the first time for this course you will need to purchase a new Access Code. There are three ways to get an Access Code:

1. Purchase a stand-alone code online. Go to http://owl.thomsonlearning.com/partners/thomson/epinThomson.html and click on the Purchase Access Code link next to the General texts (1 or 2 Semesters). You will be emailed your code. (You can also log onto http://www.ichapters.com and use the My Stuff link at the upper right corner to retrieve your code.)
2. If you buy a new textbook your OWL code will come bundled at a reduced price with the textbook.
3. Purchase a stand-alone code from your college's bookstore if they are available.

Once you have your Access Code you will need to register.
1. Go to http://owl.thomsonlearning.com and choose General under the Login and Register Here heading.
2. Click on your textbook. (Chemistry & Chemical Reactivity, 6th Edition: Kotz, Treichel & Weaver; e-Book)
How to Use OWL

3. Choose Purdue University-West Lafayette, Indiana.
4. Click on the blue arrow under Student Registration. Choose your section (CHM 116, Spring 08, Purdue University: A, B or CASPIE).
5. Complete the Registration Form.
   - Enter your 10-digit Purdue ID number (no dashes, no spaces) in the space provided.
   - For your "Login" use your Purdue User ID which is the first part of your Purdue e-mail (e.g., if your e-mail is abcd_efi@purdue.edu, then your Purdue User ID/Name is abcd_efi).
   - For your "Password", use something that you can remember and write it down.
   - Enter your Access Code.
   - If you do not want to enter your phone number, make up something
6. Click the CONTINUE button, confirm all the entered information, and click the CONTINUE button again.
7. Carefully read the Licensing Agreement page, then click the I AGREE button.
8. You should now be able to login to the OWL site following the directions below. The first time you log on you will see a welcome screen and be given the opportunity to change any of your contact information.

Logging On

1. Repeat steps 1 through 5 above, but now click the arrow button located underneath User Login Page for the Chemistry Department.
2. You should be on the OWL Student Login page for the Purdue chemistry department.
3. Enter your Login and Password.
4. Click on the LOG IN button. (You may have to scroll down the page.) You should now be on the Course Menu page (or wherever you were when you last logged off).
5. If you see the Invalid Login page, read the login information and then TRY AGAIN.
6. If you continue to have problems, click on REPORT IT, and follow the directions.

Working on Your Assignments

1. On the Course Menu page check that you are rostered in the correct OWL course. If it is incorrect, click Add/Switch Class to the left and follow the directions.
2. Click on the link for your course.
3. If there are any Course Notes, read them and then click the Current Assignments link at the top to see a list of all assignments you can complete. Alternatively, you can click the Assignment Folders link to see your assignments organized into folders.
4. Click on the link of the name of the assignment on which you want to work. It is important to do the tutorial assignments (Hk01) first to learn how to enter answers (including special formatting) correctly.
and to test if your computer has the right software (Flash and Shockwave).

5. Click on the link for the unit on which you want to work.

6. If there is content material to read, follow the directions given.

7. Press the Next button at the left to go on.

8. When you get to a question, type in your answer(s), and then click the CHECK ANSWER button.

9. Usually, your score, the correct answer(s), and feedback will be shown. (You may have to scroll down the page.)

10. If you did not get the problem right, you may click the Redo Question button to the left (if available) to try the problem again. Otherwise you can try again during another attempt of the unit.

11. When you are ready to move on to another question, either: A) choose a question number link from the status bar at the top of the page, or B) click the Previous or Next buttons to the left.

12. Click the Unit Menu button to the left to return to the complete unit list.

13. When you are done working, click the Assignments button and check your current grade. You may repeat some questions to improve your grade up until the due date. Your highest grade will then be recorded. For some question sets you must complete the entire tutorial or example in order to receive credit.

14. Click the Logout button on the left side of the page to exit the OWL system. Be sure to always log out when you are finished!

Miscellaneous

1. Click the Course Notes button to see any instructor announcements.

2. Click the Past Due Assignments to repeat any assignments that are already due for additional practice (note that your grade for that assignment will no longer change).

3. Click the User Info button to change your email, phone information and password.

4. Click the Appendix button to view helpful information.

5. Click the Units button to see the acceptable units and abbreviations for the system.

6. Click the Help button for the User’s Manual including the online tutorial (Browsing for Beginners).

7. Click the Send Message button during an assignment to report a problem or ask your professor a question.

If you have any problems, please contact your professor or the OWL Administrator:
Dr. Nurrenbern, BRWN 1144, nurrenbe@purdue.edu