COURSE INFORMATION

Professor Cindy Harwood, 4176 SES, 996-1531
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WWW: http://www.chem.uic.edu/chem112
LECTURE: 12 - 1 pm MWF, 250 SES
Office Hours: M 1 - 2 in SLC, W 11 - 12 in 4176 SES

COURSE MATERIALS

Laboratory: Chemistry 112/116 Laboratory Manual. You are also required to purchase SPLASH GOGGLES (not just standard eyewear). These can be purchased at the campus bookstore.

COURSE GOALS

Chemistry 112 is the first of a two-semester course in general chemistry. The topics for this course fall under the heading “Reaction and Equilibrium Analysis”. You will learn how chemists characterize chemical substances and the stoichiometry of reactions. Finally, you will study how chemistry is used to describe systems in, or approaching, a state of equilibrium.

COURSE REQUIREMENTS

Registration. Proper registration requires concurrent registration in the lecture and in paired lab/discussion sections. You may only attend those lab sections for which you are registered. This is a safety requirement that cannot be waived by anyone, even your TA. Students attending a lab section for which they are not registered will be dismissed from the lab.

Pre-requisites. Students must have been advised into Chemistry 112 on the basis of their performance on the Chemistry placement exam. Students who do not satisfy the pre-requisites will be dropped from the course during the first week of the semester. A college algebra math proficiency is assumed and is necessary for success in this course.

Add/drop. Any student wishing to register for this course after the first week of the semester must obtain permission from the instructor.

COURSE COMPONENTS

Lecture. There are three scheduled lectures each week, excluding designated holidays (see attached Course Schedule). The lectures contain explanations and examples of general chemistry concepts necessary for your mastery of Chemistry 112 topics. Although attendance is not taken, you should consider lecture a required part of the course. In particular, you are immediately responsible for all in-class handouts and announcements. The final answer to the question “What will be on the exam?” can only be had by diligent attendance at the lectures. It is possible that certain material will be omitted from or added to the original lecture material. There will be some small group work required in the lectures to give students a chance to discuss topics and clarify their understanding. More information on this will be given in class.

Exams: There will be three hourly exams during the semester. These will probably be held in the evening (TBA). No makeups will be given for any missed exam or quiz without a valid, written excuse. If you know in advance that you must miss an exam, please discuss that with me. University regulations require that, if you foresee that you will miss a scheduled exam for religious reasons, you must notify the instructor within the first two weeks of the semester. The final exam is cumulative and approximately 1/3 will be comprised of lab-related questions.

GRADING

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Three 120-point hourly exams</td>
<td>360</td>
</tr>
<tr>
<td>Final exam</td>
<td>240</td>
</tr>
<tr>
<td>Laboratory experiments</td>
<td>220</td>
</tr>
<tr>
<td>Five 20-point quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Eight 10-point worksheets</td>
<td>80</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1000</strong></td>
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Given the point total above, the following cutoffs have been established for a given letter grade in the course. I may lower the cutoffs but I will not raise them.

A ≥ 900; B ≥ 800; C ≥ 700; D ≥ 600
Minimum performance: Regardless of the overall grading scheme, you must satisfy two performance requirements to pass this course: 1) your grade on the exams (hourly + final) must total at least 300 points (50%) and 2) you must complete and hand in at least twelve lab assignments - including the lab reports. (No lab grades will be dropped; missed labs will be given a grade of zero.) No lab practical can be missed. These are Chemistry Department guidelines.

Discussion. This course includes one discussion session per week led by a teaching assistant. Additional practice in problem-solving will be provided by weekly worksheets which will be discussed during the discussion period. Your discussion period is an ideal time to obtain help from your TA and your fellow students and to discuss the most recent topics presented in class. Most students find that this course moves very quickly and that it is easy to fall behind. I strongly recommend that you form study groups to help keep you current with the class schedule. Your ability to explain a problem or concept to someone else is a good test of your own understanding.

Quizzes: There are five quizzes scheduled for this semester. These will be short checks on your understanding of course topics and will be given online and/or in discussion. This will be discussed in more detail in class. There will be five quizzes worth 20 points each for a total of 100 points.

Homework: Homework is assigned for each and every lecture I give. Your mastery of Chem 112 topics is directly correlated to a careful and timely completion of these assignments. It is very important that you set aside adequate time each week for homework assignments. Homework assignments will include online problems as well as eight graded homework assignments that you will receive throughout the semester.

Laboratory. The course includes ten laboratory experiments and four lab practicals that allow you to put into practice the concepts you learn in lecture and discussion. Lab-related questions will be included on your exams. The laboratory grade is based both on your written work – lab reports and your lab notebook – and the quality of your work. Each regular lab is worth 10 points and each lab practical is worth 25 points for a total of 220 points toward the final grade. In addition, you will be assigned a lab preparedness grade of up to 20 points as detailed below in the Notes section.

Missed Labs: No lab make-ups are allowed. Missing more than 2 labs (without a verifiable emergency excuse) will result in an automatic E for the course.

Lab Reports: Written lab reports are required for each lab. See the Laboratory Report sheet for details.

Notes:

- **Before coming to the lab,** you must read the lab assignment and prepare your notebook with a title for the lab and a brief (25-50 word) lab procedure. This is your entry ticket to the lab and must be prepared before you can start the lab. It should be handwritten and in your own words. Shortly after the start of the lab period several students will be chosen at random by the TA to describe the procedure for the lab. Your lab preparedness grade will result from this assignment.

- Neatly record your observations and data for all experiments in a BOUND notebook. Your TA must initial this notebook before you leave lab.

- Lab reports are required and must be prepared with data you collected in the lab, even if your results are wildly different from what you think they should be. In this event, list reasons that might explain your results. Talk with your TA to determine what he/she expects from your lab report. In general, the guidelines set forth in the Laboratory Report Format and Grading sheet will be followed.

- **YOU MUST ALWAYS WEAR CHEMICAL SPLASH GLASSES IN THE LAB.** This is the law of the state of Illinois. It is also common sense. If you are caught without proper eye protection, you will be dismissed from the lab. If this occurs more than once in a period, you will be given a zero for the lab. Contact lenses should not be worn in the lab because they can trap chemicals against the eye and cause permanent damage. If you must wear contact lenses, you must tell your TA and other students so that they can properly assist you in an emergency.

Missed Exams/Quizzes: If you miss an exam or quiz due to serious illness or a comparable emergency, notify me that day or as soon as possible, and bring documentation (e.g., a note from your doctor) to me as soon as possible. I will verify the excuse in many cases.

Cheating: Academic dishonesty in any form will not be tolerated in this course. Any student caught cheating will be immediately assigned a grade of E by me. Further disciplinary action will then be discussed with the department office and the Dean. If you are considering cheating, please remember that the few points (or even few dozen points) you receive if you succeed cannot match the failing grade you receive if you are caught.

**SCIENCE LEARNING CENTER (SES)**

The Science Learning Center is available to students most school days between 7am and 6:15pm. This room opens the second week of the semester and may be used either as a private study area or as a place to meet and form your own study group. A chemistry graduate student will be available to help you in this room during all regularly scheduled hours.

**E-MAIL COMMUNICATION AND WEBPAGE**

You may usually reach me through e-mail on the UIC computer system. Computer accounts are free for all students. If you do not have an account, call the computer consultants at 3-8080. I have set up a web page (address above) for this course. Refer to it for copies of homework assignments, course policies, etc. Your use of e-mail and the internet will be necessary for this course.