

## CHEM 121 (sections 1 & 2) Fall 2011 General Chemistry I Lecture

**Professor:** Dr. Juliet Hahn  
**office:** Jones Annex 205 (office hours will be held either in JA 205 or in my research lab JA 216)  
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**office hours:** 2 - 3 pm MWF & other times by appointment  
(If you need me, I will always find the time to meet with you.)  
**textbook:** Chemistry the Central Science 12<sup>th</sup> ed., Brown, LeMay, Bursten, Murphy, Woodward

Quizzes and exams (& answer keys for quizzes and exams) will be posted online at <http://JulietHahn.com> after you take the quizzes and exams. Please download the blank form of the quiz and work through the quiz before the exam to study for the exam. Please download the blank form of the exam and work through the exams before the regular final exam to study for the final exam. You will **never ever** see the same question given on a quiz also on an exam. (The idea is to **understand** the questions on the quizzes & exams.)

**scientific calculator:** To perform calculations in this course, you will need an inexpensive “scientific calculator”. It does not need to be elaborate but should be able to express numbers in scientific notation (e.g.  $6.02 \times 10^{23}$ ) and must have log (and ln) functions. You can buy such a calculator for around \$10.00 at the local discount store. You will be able to use your calculator on all of your exams. I will **not** allow you to use a cell phone as a calculator.

**clickers:** Every class will have at least one clicker question (graded 50% for attendance and 50% for knowledge). Please check out a clicker (for the semester) at the library and register it to your name at [www.iclicker.com](http://www.iclicker.com). Until you register your clicker, you will get no clicker points. Clicker points will be worth 25 points – the same as if you did 25 points better on one exam. [a 65% exam grade (zero clicker points) = 90% exam grade (65% + 25 clicker points)] The same clicker can be used in all your classes so if you already checked out a clicker, you do not need to check out another one.

**classroom:** Section 1: MWF 8:00 - 8:50 am; Section 2: MWF 9:00 - 9:50 am WORKMAN 101 (Please **attend your own section and take all exams and quizzes in your own section unless you have a documented valid excuse.** The clicker may otherwise not function correctly and you may lose all your clicker points and I otherwise can't keep track of how many exams to make up for which section.)

(The lecture is independent of the lab & your lecture grade is independent of your lab grade. You get a **3 credit grade for the lecture** and an independent 1 credit grade for the lab and an independent 1 credit (S/U) grade for the optional recitation class. You will **not** get a 4 credit grade for the lecture & lab.)

Chemistry is not some far away, antiseptic, horrible, technological monstrosity of the 21st century and chemicals are not some maiming, toxic substance from which we all have to keep a distance. Modern society would not be possible without chemistry. Chemistry gives us all pharmaceuticals, all synthetic materials (polyester, nylon, plastics, teflon, styrofoam, perfumes, rubber, nutrasweet), batteries, the ink in your pen, liquid crystals in your LCD watches & in your flat panel TVs. Chemicals also makes up the bodies of all living organisms. Almost everything that you eat are chemicals. Chemicals are everywhere!

Chemistry 121 is the first semester of a two semester sequence of General Chemistry lecture. We will cover about half the chapters in the text this semester. Do not get too cocky from having done well in your high school science classes to think that you will do well on this course by just being smart. Do not think

that just because the class's name says "...Chemistry" that the class automatically will be too boring, too scary, too hard, too much like your high school chemistry class for you to enjoy and do well. Think to yourself: **[I think I'll really work on this course and maybe I'll actually (gasp #1) get an A on the class and/or (gasp #2) enjoy the class.]** Choose whichever gasp you like better : ) Just keep in mind that **no matter how smart you are**, you will not do well on this course without a **lot of hard work**.

The grade that you earn in this class will be directly related to how much time you spend preparing for the class. **The biggest secret to doing well in this course is to keep up with the lecture material.** The biggest mistake that students make which results in a bad grade in the course is **1) not keeping up with the lecture material and attempting to cram the night before every exam 2) thinking that just understanding the lecture material means that you will do well on the course – you have to actually work at least the example worked problems from the lecture and for a better grade the homework problems.** When I say you have to work the problem, I mean that you have to do the problem including the final plugging in of the numbers into your calculator to obtain the final correct answer. **Just looking at the worked problem and sort of understanding it does not count as having done the problem.** If you make either of these two common mistakes, you will not learn anything. (You will also get a bad grade on this course.) General Chemistry is going to be a lot of work. **(If General Chemistry is not a lot of work, then you may be doing something wrong and your grades may reflect this.)**

The following is my suggestion for what you should do to study for this class. If you have no time, do the things listed first by no time. If you have more time and want a better grade, do the things listed by lots of time. (**no time**: attend class, study the 2 quizzes given immediately before the exam, study lecture notes, rework the example problems in the lecture, read book, do assigned homework problems **:lots of time**) **Class attendance is very important to doing well on this course. Not coming to class and not taking the quizzes and exams are the surest way to get an F on the class.** (even if you had no attendance/clicker points)

Please come to class the lecture between the quiz and the exam. We will review the quizzes and make sure that everyone understands everything on the quizzes before the exam. However you should not simply memorize the quiz because I will **not** give the same questions on the exams as appeared on the quiz. The idea is to understand the quiz before the exam not to simply memorize everything in sight.

**Grading: Grading will be based on 600 points**

3 exams .....	300 pts
final exam (cumulative normal format) .....	100 pts
final exam (ACS standardized exam) .....	75 pts
7 quizzes (drop 2 quiz, 20 pts each quiz) .....	100 pts
in class clicker questions .....	25 pts

(every class will have at least **one** clicker question, the clicker question will be 50% for responding to the question and 50% for having the correct answer to the question, note that getting just the **clicker attendance points** is the same as getting 13 points on an exam – **an entire letter grade higher on one exam.** Getting both the attendance and correct answer clicker points is the same as getting an entire letter grade higher on 2 exams.)

**Total points ..... 600 pts**

**There will be no makeup exams, quizzes or final exam without a documented excused absence. Without a valid excuse, you will receive a zero on all missed exams\*, quizzes and final exam.** If you have a valid excuse (at Dr. Hahn's discretion), I will replace the missed exam or quiz with an average of your other exams or quizzes prorated for the difficulty of the missing exam. Alternatively you can request

to be given a makeup exam which will be very different from the exam everyone else took. The makeup exam will not be curved because there is no one else to compare to you. There will be no makeup quizzes. Excused absences will be allowed only under clearly documented (i.e. written doctor's excuse, written obituary, etc.) **Please provide me a hard copy of your documentation for my files.** Examples of valid excuses include: medical grounds, death in the immediate family and documented weather related transportation problems and university business. Examples that are not valid excuses include: personal problems, going away for the weekend, intramural sports, etc. (In general acceptable excuses for absences for missed exams will be much more rigorous than acceptable excuses for absences with no missed work.) You will be allowed to drop two lowest quiz grades. (The lowest quiz grade dropped may be a zero for an unexcused absence.) You will not be allowed to drop either final exam or any of the exams. (\*If you come to the 8 am class exam at 8:50 am (without a valid excuse), you will not be allowed to take the exam – this would be a missed exam. If you come at 8:40 am, you will be able to take the exam only until 8:50 am.) If you are not sure if your excuse is acceptable, please ask me rather than just assuming that it is not an acceptable excuse.

**Schedule of Reading Assignments:** We will spend about 3 - 4 class lecture periods per chapter and will cover each chapter consecutively until the end of the semester. We will cover chapter 1 to chapter 11. This reading assignment schedule is not chiseled in stone and may change during the semester. (**Exam & Quiz dates are chiseled in stone.**) I suggest that you skim the chapter before the material is covered in class and actually read (in detail) the sections covered in class after the material has been gone over in class. (skim = read introduction, conclusion, flip through book noting the major examples, figures and section headings in the chapter) You will receive homework problems (from the book) during class which will not be collected and will not be graded.

<b>Dates</b> .....	<b>Chapter</b>
8/24W, 8/26F, 8/29M, 8/31W .....	1
9/2F, <b>9/7W (Quiz I)</b> , 9/9F .....	2
9/5 M .....	labor day holiday
9/12M, 9/14W, <b>9/16F (Quiz II)</b> , 9/19M .....	3
<b>9/21W</b> .....	<b>Exam I</b>
9/23F, 9/26M, 9/28W, 9/30F .....	4
<b>10/3M (Quiz III)</b> , 10/5W, 10/7F, 10/10M .....	5
10/12W, <b>10/14F (Quiz IV)</b> , 10/17M, 10/21F .....	6
<b>10/19W</b> .....	<b>Exam II</b>
10/24M, 10/26W, 10/28F .....	7
<b>10/31M (Quiz V)</b> , 11/2W, 11/4F, 11/7M .....	8
11/9W, <b>11/11F (Quiz VI)</b> , 11/14M .....	9
<b>11/16W</b> .....	<b>Exam III</b>
11/18F, 11/21M, 11/23W, 11/28M .....	10
11/24R-11/25F .....	Thanksgiving
holiday, 11/30W, <b>12/2F (Quiz VII)</b> , 12/5M .....	11
<b>12/7W</b> .....	<b>regular Final Exam</b>
12/9F .....	review
12/10 start finals, 12/16 end of semester ( <b>ACS final exam date to be announced</b> )	

**The exams will cover the materials discussed in class.** Unless specifically mentioned, exams will not cover materials in the textbook that were not discussed in the class. However it is strongly recommended that you read the text. Exams, quizzes and the regular final exam will have almost identical format. **An exam will be a mixture of multiple choice (MC), short answer/fill in the blank (SA) with one (or two) long answer (LA) questions per exam.** A long answer question is a question which will have a half page

to a full page blank for which you will have to show your work for solving some sort of word problem. You may be asked to write a few sentences to explain something for the long answer question. Exams will be very similar to the quizzes however you will never get an identical question on an exam which you got on a quiz. If there are any mistakes on the graded exams any requests for regrades **must** be made during the class in which the exam or quiz is returned in writing. Once you leave the class, any requests for regrades will **not** be honored. You will get to keep your exams & quizzes to study so that you learn from your mistakes. You will get partial credit for LA (& some SA) questions.

**You will be given two final exams.** One of the final exams will be a cumulative exam identical in format to the final exams which you took all semester and will be given during the last week of classes. The second final exam will be an ACS standardized multiple choice final exam given during the final exam period. You will receive a composite final exam grade (100 % regular final + 75 % ACS standardized final exam). Both final exams are mandatory and if you miss either final exam without a valid excuse, you will get a zero on about half of the final exam grade.

Pay attention in class and follow the syllabus. I am the only one who is deciding on how this class will be run. (Example: Lets say that all of your friends tell you that if you miss an exam, you will get the **class** average on the exam. The syllabus and I did not say this. So you need to ask me or refer to the section of this syllabus on missed exams & quizzes. You will note that without an excuse **a missed exam gets a grade of zero**. If the missed exam is an acceptable (to Dr. Hahn) excused absence, you will get your own average prorated for the degree of difficulty of the exam.) I personally make up all of the exams & I personally grade all of the exams.

**Absences:** If you miss a class or a portion of a class, it is your responsibility to obtain the lecture notes and any class assignment given out during the classes you missed. I will not redo the lecture individually for any individual who missed a class or give my lecture notes for the missed classes. **Missing a class during which I give an assignment (such as a change in exam date) does not excuse you from the assignment. It is your responsibility to contact classmates or me either before your missed class period or as soon after missing the class as possible.**

**Students with Disabilities:** Students who have special conditions as addressed by the Americans with Disabilities Act should notify the professor of the course immediately. **Academic Dishonesty:** Academic dishonesty in any form will not be tolerated. University regulations on academic honesty will be strictly enforced throughout this course. **Drop Date:** The last date to drop this class is 9/9 Friday.

**One final point,** my objective is to teach General Chemistry to everyone in this class. I want you all to do well because you are my students. If you have any difficulties, please come to see me before your difficulties cause irreparable damage. Do not just stop trying without coming to see me first.

Pre-requisite: MATH 103 (or equivalent passed with grade C or better) Co-requisite: CHEM 121L