

Chemistry 12 : Chemical Principles
Spring 2006
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General Information

Chemistry 12 is an introductory general chemistry course for science, engineering, and technology majors, and is half of a two-course sequence completed in Chem. 13. The laboratory courses Chem. 14 and Chem. 15 complement these courses, and are scheduled separately; however, to expedite scheduling in future semesters, Chem. 14 should accompany Chem. 12.

Text required: General Chemistry, Darrell D. Ebbing, Houghton Mifflin, Boston, 8th Edition, 2005, ISBN 0-618-39941-0.

Calculator required: Electronic calculator capable of handling logarithms and exponential notation.

Prerequisites: Prerequisites include a working knowledge of high school level arithmetic and algebra. A good recent high school or introductory survey college chemistry course is suggested. Students without these prerequisites ordinarily perform poorly.

Chemistry 6 is a sister course to Chem. 12; students should take Chem. 6 from the same instructor as Chem. 12 to obtain the exam advantage inherent in having the same instructor for both courses. Chem. 6 satisfies no graduation requirement, but is used in calculating your overall grade average.

Attendance: University regulations state that a student should attend **every** scheduled class (Policies and Rules for Students section 42-27). Frequent absence from class is unacceptable. If you miss a class it is **your** responsibility to determine what material, announcements, handouts, graded papers, etc., were missed due to your absence. There will be no make-ups for missed lectures or recitations. You should arrange for one of your classmates to hold returned papers in the event you are absent when papers are returned. I do not assume responsibility for holding papers if you are not there to pick them up, or have not made arrangements for someone else to pick them up. I will, of course, **try** to hold unclaimed papers for a few days.

Class lectures on Mondays and Wednesdays will be used for lectures and demonstrations; the smaller **recitation sections** will be used for answering questions, working problems, and quizzes. Recitations are conducted with the understanding that **you have read and studied the material in advance**. Failure to prepare for a class will result in minimal benefit from the lecture or recitation.

Office Hours (C-127 Smith) will be announced in lecture. Additional hours may be announced, and the office hours may be changed if I do not have students utilizing the posted hours. If you cannot attend regular office hours, please leave me a message. I will check my personal campus voice mail at least once each weekday.

Grading for the course will be based on three examination grades and a maximum of ten recitation quiz grades. There will be no extra credit assignments. The exact procedure for computing the final course grade is described later.

Examinations: There will be three examinations and a final examination. The dates of these examinations are given in the attached assignment schedule. The topics covered on the exams will be announced in advanced. Make-up examinations will be given **only if I** have prior notice and justifiable cause. Rules for deferred grades are determined by the Registrar. You must **SIGN NOT PRINT** your name on the first page in order to get credit for taking the exam.

Recitation Quizzes: There may be up to a total of 14 recitation quizzes. The recitation quizzes will be completed during the last 5-15 minutes of each recitation meeting. The general type of question to be given will be announced in advance. A maximum of ten of the recitation quizzes will be used for computing the final course grade; the lowest scores will be dropped if there are more than ten recitation quiz grades. No make-up quizzes will be given. You may take a recitation quiz in a different period from your regularly scheduled period only with prior permission from me. You must **SIGN NOT PRINT** your name on the first page in order to get credit for taking the quiz.

Computing the Course Grade: Each examination will count as 20% and the final examination will count as 30% of your final grade for a total of 90%. The average quiz grade will count as 10% of your final grade. The **tentative** grade scale is as follows.

<u>Percentage</u>	<u>Grade</u>
95 or more	A
92 or more	A-
88 or more	B+
85 or more	B
82 or more	B-
75 or more	C+
70 or more	C
60 or more	D
Less than 60	F

In addition, if a student utilizes my office hours at least twice with justifiable questions and remembers to sign-in, I will drop the lowest exam grade and calculate the course grade as follows; each remaining examination as 30% and the final examination as 30% for a total of 90%. The quiz grade would be the remaining 10%.

Dropping the Course: Contact the Office of the Registrar, in room E-130 Smith. No course can be dropped after the end of the drop period. This date, and your final exam time and date, as well as other useful information is always appended to the copy of course offerings for any semester. This usually occurs just before or just after the **THIRD** scheduled examination in this course (This semester, the third exam is scheduled before the last day to drop). **Caution!** in dropping courses is advised because of a maximum (during your entire PSU tenure) allowed number of credits you may drop between the end of the "free" drop period until the end of the allowed drop period (when you have to pay to drop).

Seating Assignments for lectures will be posted **if I think it is needed**. If you wish to sit in the front half of the room, please give me a sheet of paper with your name, section and request for a front half seat prior to the end of the third lecture. Should you wish to have your assigned seat changed, please notify me in writing. You will have assigned seats in **recitation**, which must be written on the front of your exams and quizzes to get credit.

The Assignment Schedule for the course is attached. The Schedule is approximate. Problem assignments will be made in either lecture or recitation period and are for practice; they will not be collected or graded.

Campus Statement on Academic Integrity, adopted by the Altoona Campus Faculty Senate on March 19, 1985.

"Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to cheating, plagiarism, fabrication of information or citation, facilitating acts of academic dishonesty by others, unauthorized prior possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students." (Policies and Rules for Students, Section 49-20)

Consequences of Academic Dishonesty:

"The penalty for academic dishonesty in less serious cases consists of a failing grade for the work or test where this misconduct occurred. *This decision is made by the instructor.* For more serious cases of dishonesty, the penalties are more severe, (including automatic failure for the course, probation, suspension or expulsion from the University), and formal due process procedures are available for the student and faculty involved. Section 49-20 of the Policies and Rules for Students provides the details on these procedures."

Scheduled Classes Not Met:

In **Extraordinary** circumstances (which have occurred from time to time in the past, and which will occur from time to time in the future), when classes are missed due to reasons other than instructor illness, power failures, weather, and the like, in which the missed classes are not made up), missed classes will be rescheduled if possible, in conjunction with the Office of the Registrar. Any such rearranging and rescheduling would be announced in class so that appropriate arrangement could be made by all.

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Tentative Weekly Assignment Schedule For Spring 2006 Semester

Lecture Periods	Initial Date	Chapter Assignments, and.....
1,2	Jan. 9	Chapter 1. Introduction. Measurements.
3	Jan. 16	No Class – Martin Luther King Jr. Day
4,5	Jan. 18	Chapter 2. Atomic Theory.
5-8	Jan. 23	Chapter 4.1-6. Solution Reactions. Exam 1 is Fri. Jan. 27, 5:00-7:00pm
8-10	Feb.1	Chapter 3. Stoichiometry. 4.7-10
11	Feb. 13	Chapter 5. Gases. Coverage will be brief.
12,13	Feb. 15	Chapter 6. Thermochemistry.
14	Feb. 22 Exam 2 is Fri. Feb. 24, 5:00-7:00pm
15	Feb. 27	Chapter 7. Quantum Numbers. Coverage will be brief.
16	Mar. 1	Chapter 8. Electron Configurations.
17,18	Mar. 13	Chapter 9. Chemical Bonding.
19,20	Mar. 20	Chapter 10. Molecular Geometry Omit Paragraphs 10.3-10.7.
21-24	Mar. 27	Chapter 11. Liquids and Solids. Organic Compounds. Chapter 24:1-6 Exam 3 is Fri. March 31, 5:00-7:00pm
25-27	April 10	Chapter 12. Solutions, Colligative Properties.
27-29	April 17	Chapter 13. Kinetics.
30	April 26	Extra Lecture Period
31	May 4 FINAL EXAM, 8:00-9:50 a.m.

No multiple choice questions will be asked on examinations (Final is multiple choice).

**It is recommended that you work more than the assigned problems.
Work as many as possible of the combined skills problems is also advised.**

I recommend that you form small study groups of three or four to work/discuss the problem assignments.