

# Chemistry 212 – General Chemistry II

Winter 2004

Lecture – Monday, Wednesday 2:00 – 3:30 p.m. SCI 343

Laboratory – Tuesday, Thursday 1:00 – 3:25 p.m. SCI 255 (Section 2)

3:30 – 5:55 p.m. SCI 255 (Section 3)

**Instructor:** Dr. Andreas Gebauer (office: SCI 268, telephone, 665-6840; e-mail, agebauer@csub.edu, <http://www.csub.edu/~gebauer>).

**Office Hours:** Tuesday and Thursday 11:00 a.m. -12:00 p.m., SCI 268, or by appointment.

**Textbook:** Zumdahl & Zumdahl, Chemistry, 6<sup>th</sup> Edition, Houghton Mifflin Company.

**Labbook:** Page/Patterson/Neidig/Spencer/Boyles/Foster/Gillette, Chemistry Lab Manual CHE 212 Section 2 & 3. Brooks/Cole, Thomson Learning.

**Attendance:** Attendance is mandatory and will be monitored.

## Grading:

Exam 1:	100 points
Exam 2:	100 points
Final:	100 points
Labs:	200 points
<u>Homework:</u>	<u>100 points</u>
Total:	600 points

**Failure to take the final exam will lead to a non-passing grade!** There will be no make-up, early, or late exams. Grades will be assigned following these **approximate** benchmarks: 540 - 600 = A, 480-539 = B, 408 - 479 = C, 360-407 = D, below 360 = F.

**Homework Problems:** Homework problems and their due-dates are listed in this syllabus and also online at the above website.

**Laboratory:** The laboratory section of Chem 212 contributes 33% (or 200 points) to your grade.

Attendance is **mandatory**. Points will be distributed for:

- Laboratory manners, i.e., preparedness, cleanliness, following safety rules, following instructions (20%);
- Laboratory reports (80%).

**Misconduct:** Cheating on examinations will not be tolerated. Anyone found cheating (copying another exam, asking others for answers, or using textbook or notes during exams) will be asked to leave and will receive an “F” for the course. To avoid any doubts during exams, please do not talk to others and do not look at other exams. Please see the “Campus Policy on Academic Dishonesty” at the end of this syllabus for further information.

**Advice:** Chemistry 212, General Chemistry II, is an introductory chemistry course designed to introduce basic concepts important in chemistry. To do well involves time and effort. It will be to your advantage to come to all of the lectures, to read (and re-read, if necessary) the textbook, to work the homework and textbook problems, and not to fall behind.

## Chemistry 212 – Syllabus

Week	Day	Date	Topic	Reading
1	Monday	January 5	Lecture – Introduction/Chemical Kinetics	Ch. 12
1	Tuesday	January 6	Lab – Drawer Check-out	
1	Wednesday	January 7	Lecture – Chemical Kinetics	Ch. 12
1	Thursday	January 8	Lab – ANAL 364	
2	Monday	January 12	Lecture – Chemical Kinetics	Ch. 12
2	Tuesday	January 13	Lab – ANAL 364	
2	Wednesday	January 14	Lecture – Chemical Equilibrium	Ch. 13
2	Thursday	January 15	Lab – ANAL 364	
3	Monday	January 19	<b>Holiday</b> – Martin Luther King Day	
3	Tuesday	January 20	Lab – SYNT 431	
3	Wednesday	January 21	Lecture – Chemical Equilibrium	Ch. 13
3	Thursday	January 22	Lab – SYNT 431	
4	Monday	January 26	Lecture – Acids and Bases	Ch. 14
4	Tuesday	January 27	<b>Exam 1 (Chapters 12 – 13)</b>	
4	Wednesday	January 28	Lecture – Acids and Bases	Ch. 14
4	Thursday	January 29	Lab – ANAL: 365	
5	Monday	February 2	Lecture – Applications of Aqueous Equilibria	Ch. 15
5	Tuesday	February 3	Lab – ANAL 365	
5	Wednesday	February 4	Lecture – Applications of Aqueous Equilibria	Ch. 15
5	Thursday	February 5	Lab – ANAL 366	
6	Monday	February 9	Lecture – Entropy and Free Energy	Ch. 16
6	Tuesday	February 10	Lab – ANAL 366	
6	Wednesday	February 11	Lecture – Entropy and Free Energy	Ch. 16
6	Thursday	February 12	Lab – ANAL 367	
7	Monday	February 16	Lecture – Electrochemistry	Ch. 17
7	Tuesday	February 17	<b>Exam 2 (Chapters 14 – 16)</b>	
7	Wednesday	February 18	Lecture – Electrochemistry	Ch. 17
7	Thursday	February 19	Lab – ANAL 367	
8	Monday	February 23	Lecture – Main Group Chemistry	Ch. 19
8	Tuesday	February 24	Lab – ANAL 396	
8	Wednesday	February 25	Lecture – Main Group Chemistry	Ch. 20
8	Thursday	February 26	Lab – ANAL 396	
9	Monday	March 1	Lecture – Transition Metal Chemistry	Ch. 21
9	Tuesday	March 2	Lab – ANAL 624	
9	Wednesday	March 3	Lecture – Transition Metal Chemistry	Ch. 21
9	Thursday	March 4	Lab – ANAL 624	
10	Monday	March 8	Lecture – Organic and Biological Molecules	Ch. 22
10	Tuesday	March 9	Lab – Check-out	
10	Wednesday	March 10	Lecture – Nuclear Chemistry	Ch. 18
10	Thursday	March 11	<b>Review Session</b>	
11	Monday	March 15	<b>Lecture – Review Session</b>	
11	Wednesday	March 17	<b>Final (Chapter 12 – 22) 2:00 – 4:30 pm</b>	

## Homework (HW) assignments and due dates for Chem 212, Spring 2004.

HW	Due Date	Assignments
1	Wednesday, January 14	Chapter 12: 14, 18, 22, 28, 44, 46, 58, 62, 76
2	Monday, January 26	Chapter 13: 10, 16, 22, 24, 34, 38, 48, 60, 78
3	Monday, February 2	Chapter 14: 18, 22, 32, 38, 42, 50, 66, 84, 112, 122
4	Monday, February 9	Chapter 15: 16, 22, 24, 28, 30, 40, 48, 54, 72, 74, 86, 88, 104, 126
5	Monday, February 16	Chapter 16: 10, 20, 26, 34, 42, 50, 56, 68, 74, 80
6	Monday, February 23	Chapter 17: 10, 14, 16, 30, 38, 54, 66, 74, 80, 106
7	Wednesday, February 25	Chapter 19: 12, 18, 26, 28, 34, 40, 48, 52, 60, 64
8	Monday, March 1	Ch. 20: 16, 28, 34, 38, 42; Ch. 21: 20, 28, 30, 32, 36, 40, 44, 46, 72
9	Wednesday, March 10	Chapter 22: 26, 32, 50, 52, 56, 64, 66, 76, 88, 136
10	Monday, March 15	Chapter 18: 10, 12, 18, 20, 26, 32, 36, 44, 54

Total points possible from HW = 100. Since there are 10 HW, each HW is worth 10 points. Simply writing down the solution is not sufficient, I need to see the way you worked the problem. The purpose of the homework is to build your problem-solving skills. You are welcome to come to my office hours to ask questions about the HW (or anything else related to Chem 212) and get help in solving the problems **before and after** the due dates.

The solution keys to the homework will be posted on the evening of the due dates at <http://www.csub.edu/~agebauer/Chem212.htm>. All assignments refer to the textbook: Zumdahl & Zumdahl, Chemistry, 6<sup>th</sup> Edition, Houghton Mifflin Company.

### Campus Policy on Academic Dishonesty

The principles of truth and honesty are recognized as fundamental to a community of teachers and scholars. The University expects that students will honor these principles and in so doing will protect the integrity of all academic work and grades. Students are expected to do all work assigned to them without unauthorized assistance and not to give unauthorized assistance.

There are certain forms of conduct that violate this community's principles. Academic dishonesty (cheating) is a broad category of actions that use fraud and deception to improve a grade or obtain course credit. Academic dishonesty is not limited to examination situations alone, but arises whenever students attempt to gain an unearned academic advantage. Plagiarism is a specific form of academic dishonesty which consists of the misuse of published or unpublished works of another by claiming them as ones own. It may consist of handing in someone else's work, copying or purchasing a composition, using ideas, paragraphs, sentences, or phrases written by another, or using data and/or statistics compiled by another without giving citation. Another example of academic dishonesty is the submission of the same, or essentially the same, paper or other assignment for credit in two different courses without receiving prior approval.

When a faculty member discovers a violation of the community's principles, the faculty member is required to give a failing grade to the student for the course. In addition to assigning the final grade, the faculty member also notifies in writing the Dean of Students and the relevant school dean that an act of academic dishonesty has occurred and a grade of F has been assigned. The student receives a copy of this letter.

The letter becomes part of the student's permanent file. If a second act of dishonesty occurs, the student is administratively dismissed from CSUB.

Under the Student Academic Grievance Procedures, a student may appeal any sanction employed by faculty or the University based on an allegation of academic dishonesty. The initiation of the grievance must occur within fifteen school days after notification of the grade is mailed or personally given to the student. Copies of these procedures are available in the offices of the school deans.