

COURSE SYLLABUS

Chemistry 202-75 • General Chemistry II • Spring 2008

Senior Instructor:

Dr. John G. Arnez

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Lectures: TR 5:30 - 6:45 pm — DA204

Text: Martin S. Silberberg, *Chemistry - The Molecular Nature of Matter and Change*, 4th. edition, McGraw-Hill Higher Education

Prerequisite: Successful completion of Chemistry 201.

Course Description:

Chemistry 202 is the second semester of the general chemistry course for students interested in science, engineering and other majors. It covers topics such as intermolecular forces, phases, solutions, kinetics, equilibria, thermodynamics, electrochemistry and nuclear chemistry.

Examinations and Grading:

The course grade is based on three semester exams (100 points each, given during main lecture times), quizzes (100 points total, given during recitation times) and a comprehensive final exam (200 points). Exams will be graded as soon as possible.

Exam I	Tuesday, Feb. 5	100
Exam II	Tuesday, Mar. 4	100
Exam III	Tuesday, Apr. 8	100
Quizzes (best 4 of 5)	Recitations	100
Final Exam	Thursday, Apr. 24	200

Total		600 points

Grading Scale:	A: $\geq 87.5\%$ (≥ 525 points)
	B: 75.0 - 87.4% (450 - 524 points)
	C: 62.5 - 74.9% (375 - 449 points)
	D: 50.0 - 62.4% (300 - 374 points)
	F: $\leq 49.9\%$ (≤ 299 points)

These letter grade ranges apply for exams, recitation and the overall course grades. Exam and recitation grades can be scaled if necessary; grades may be scaled up but shall not be scaled down.

Exams must be taken at scheduled times. There will be NO MAKEUP EXAMS. A missed Semester Exam counts as zero. A missed Final Exam leads to an automatic F for the entire course. Exams missed for a justifiable reason (medical, job, military, athletic, etc.) must be *properly documented* (e.g. a doctor's statement, a letter from a supervisor) and reported to Dr. Arnez in advance; if this is not possible, you should contact the instructor promptly thereafter. Traffic, car problems, defective alarm clock, etc. are not acceptable excuses. In the rare instance of a justifiably missed exam, a makeup exam may be taken in the instructor's office within a week of the scheduled exam. Alternatively, the exam may be dropped and the grade calculated on the basis of completed work.

If weather or other circumstances result in closing of the University on an Exam day, the Exam will be held on the next regularly scheduled class meeting.

Lecture Policy:

Regular attendance of the lecture and recitation sessions is strongly encouraged, as you are responsible for the material covered in lectures. Lecture notes will be posted on *Blackboard* ahead of time; you may wish to print them out and annotate them during lectures. Regular attendance of, and participation in, the lectures and recitations will increase your ability to perform well in the course. Attendance is mandatory for exams and quizzes.

Homework will be assigned to help you work out problems, hone your skills and monitor your progress in the course, so you are strongly encouraged to complete it. You may need to do a problem several times in order to master it; mastering a problem means being able to get the correct answer in a reasonable period of time without having to look

anything up. However, homework will not be collected or graded. Similar questions *may* appear on quizzes or exams. If you have questions, bring them to the recitation sessions or to office hours of the instructor or teaching assistant. Also, read your textbook - you paid for it.

You may bring a calculator to class and to exams. Make sure you know how to use it and that the battery has a charge on it. However, alphabetic memory-capable calculators (i.e., those which can hold all 26 alphabet letters) will NOT be permitted during the exams. Points will be deducted from your exam if you are caught using such a calculator.

Use of certain electronic devices is prohibited in the classroom as a courtesy to your classmates; they include pagers, cell phones, radios and other audible devices. Please turn them OFF before the lecture or recitation or exam starts. Students disrupting the class with such devices or in other ways such as excessive chatter will be respectfully asked to leave the lecture room; infractions during an exam can lead to a loss of 5 to 10 points. Audio recording of lectures for private use is acceptable.

This course can be challenging; for many it will also be difficult. This course builds on Chemistry 201; deficiencies in Chemistry 201 material should be remedied promptly. It is easy to fall behind in this class but also very dangerous. The most important strategy for success in the course are regular attendance of lectures and recitation sessions, good lecture notes, doing the assigned problems in a timely fashion, and utilizing the available assistance.

Students with special needs or concerns are encouraged to contact Dr. Arnez regarding these issues.

Do not be afraid to ask questions or seek help if you need it. Several types of assistance are available:

- recitation section and the teaching assistant (TA) office hours
- supplemental instruction (SI) offered through the REACH program
- free tutoring — also available through REACH (on a limited basis)
- additional study materials (Ekstrom Library)
 1. Instructor's Solutions Manual
 2. Student Solutions Manual
 3. Other chemistry texts
- instructor (Dr. Arnez) is available for questions either in person or by e-mail. Stop by (CB 150) or make an appointment.

The following open policies apply:

— *open recitation policy*: you may attend any recitation section within Dr. Arnez's groups. However, you must take quizzes and all graded activities in your section of enrollment. You can request a transfer to another section if it works better for you. There are no make-ups except in the case of a justifiable absence (as for an exam).

— *open office hour policy*: you may consult any of Dr. Arnez's TAs during their scheduled office hours.

Schedule:

The following is the schedule for the semester. If any changes are necessary, they will be announced in class and posted on Blackboard.

T	Jan. 8	Chapter 12
R	Jan. 10	Chapter 12
T	Jan. 15	Chapter 12
R	Jan. 17	Chapter 12
T	Jan. 22	Chapter 13
R	Jan. 24	Chapter 13
T	Jan. 29	Chapter 13/16
R	Jan. 31	Chapter 16
T	Feb. 5	EXAM I
R	Feb. 7	Chapter 16/17
T	Feb. 12	Chapter 17
R	Feb. 14	Chapter 17
T	Feb. 19	Chapter 18
R	Feb. 21	Chapter 18
T	Feb. 26	Chapter 18
R	Feb. 28	Chapter 18/19
T	Mar. 4	EXAM II
R	Mar. 6	Chapter 19
T	Mar. 11	Spring Break
R	Mar. 13	Spring Break
T	Mar. 18	Chapter 19
R	Mar. 20	Chapter 19/20
T	Mar. 25	Chapter 20
R	Mar. 27	Chapter 20/21
T	Apr. 1	Chapter 21
R	Apr. 3	Chapter 21
T	Apr. 8	EXAM III

R Apr. 10 Chapter 21
T Apr. 15 Chapter 24
R Apr. 17 Chapter 24
R Apr. 24 FINAL EXAM (5:30 PM - 8:00 PM) DA 204

Recitation sessions:

#	Day	Time	Bldg&Room	TA Instructor
A	Thu.	4:30 PM	NS 108	Larry Wood
B	Tue.	7:00 PM	NS 130	Ackim Maduvu

Homework Problems:

The following Selected Problems are chosen from the many that appear at the end of each Chapter; they constitute assigned homework and some of them may appear on exams. You should be able to work these problems quickly and skillfully. It is your responsibility to master them before each exam; this may require doing some of them repeatedly.

- Chapter 12: 4, 7, 8, 13, 16, 19, 20, 25, 26, 37, 38(b,c), 39, 43(b,c), 46(b,c), 47, 49, 50, 62, 64, 67, 77, 84, 85, 88, 89(b,c), 98, 117, 118, 119, 129, 145, 147, 150
- Chapter 13: 9, 11, 12, 32, 33, 34, 35, 44, 46, 47, 49, 57, 58, 64, 67, 70, 74, 76, 88, 90, 92, 98, 101, 107, 115(not bp), 118, 120, 129, 133, 143, 147, 150(a), 156(a)
- Chapter 16: 18, 25, 28, 33, 35, 38, 41, 43, 50, 51, 53, 55, 62(a,b), 63(a,b), 64(a,b), 73(a-c), 77, 81, 91, 100(a-m), 101, 109, 114
- Chapter 17: 11, 14(Q, not Q_C), 18(Q, not Q_C), 20(Q, not Q_C), 21(Q, not Q_C), 35, 36, 37, 45, 46, 47, 50, 56, 63, 65, 67, 71, 76(a,b), 80, 92, 102(a,b), 108(a,b)
- Chapter 18: 9, 16, 19, 23, 26, 27, 36, 43, 47, 66, 67, 68, 69, 77, 78, 80, 84, 87, 90, 92, 94, 96, 98, 100, 102, 119, 121, 122(a,b), 123, 125, 139, 141, 151(a), 155, 161, 163, 165, 170, 174
- Chapter 19: 5, 12, 15, 18, 19, 21, 22, 23, 26, 31(a), 40, 46, 54, 55, 56, 58(a), 59(a), 63, 66(a,b), 67(a,b), 68(a,b), 71, 72, 74, 76, 94, 97, 98, 101, 102, 103, 110, 119, 129, 133, 144
- Chapter 20: 5, 12, 16, 23(a,c), 24(a,c), 33(a,c), 34, 36, 40, 41, 50, 51, 52, 53, 55, 56, 57, 60, 68, 69, 75, 78, 85, 96, 98
- Chapter 21: 9, 10(a-e), 11(a-e), 12, 14, 15, 27, 29, 33, 34, 39, 43, 44, 57, 58, 61, 62, 68, 69, 70(a,b), 71(a,b), 81, 87, 90, 101, 102, 105, 111, 112(a-d), 113, 130, 132, 138, 147
- Chapter 24: 4, 8, 10, 13, 16, 26, 28, 39, 40, 42, 43, 44, 45, 48, 79(c), 81(c), 83, 95, 103, 106, 112, 120, 123, 132