

# Chemistry 221 (sec 1)

## Syllabus

Fall 2007

Instructor: Dr. Gwen Shusterman  
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Office Hours: tentatively, Mon 12-1, Wed 9-10, Thurs 10-11

Text: Chemistry, A Molecular Approach, Tro, Pearson/Prentice Hall (2008).

Exams: There will be two one-hour midterms, two short quizzes and a two-hour final (see schedule). The final exam will be cumulative. The material to be covered during each exam is shown on the schedule.

Homework: There will be regular problem assignments given during class. These will *not* be turned in for grading. Some quiz and midterm problems may be taken from these problems sets. The answers to these problems are provided in the back of the text and in the solutions manual. **Success in this course is strongly correlated with time spent working problems.**

Participation Participation points will be given for being present and participating in the in-class activity and problem sessions (approximately every other week) and completing the WEBCT assignments/exercises. In addition, you may choose to enroll in workshops, CH 284, *or* complete the on-line homework, through Mastering Chemistry, see attached sheet for more info. On-line homework not received by 5:00 pm on the due date, will lose 25% each day late and must be received by the next lecture date. *See lecture 1 notes for more details.*

Mastering Chemistry Course ID: MCHEMSHUSTERMAN0001

General Info: You are responsible for all information given during class times. This includes homework assignments and any special announcements or schedule changes.

Grading: Grades will be based on the cumulative scores of exams and quizzes, plus participation points (approximately 15% of the grade). The following scores guarantee the grade shown; however, the instructor may choose to revise these percentiles downwards if class performance warrants it. Plusses and minuses will be given.

Grade Score	A ≥ 90%	B ≥ 80%	C ≥ 65%	D ≥ 55%	F < 55%
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- Policies:
1. Missing an Exam (or Quiz): If you miss an exam, please contact me within 24 hours. I will allow you to reschedule your exam only if your absence was excused, EXCEPT in the following cases, where you will need to take the exam ahead of time:
    - a) School-sponsored field trips or athletic events
    - b) Previous commitments, as allowed by instructor

Illness, work conflicts and family emergencies are considered excused absences. Other instances will be evaluated on a case by case basis. All exams must be made up before the exams are passed back in class. In cases where it is not possible to schedule a makeup exam and your absence is excused, your final exam may be used to count for the missed midterm. Failure to notify me of the reason for your absence, as well as unacceptable excuses, will result in a score of zero for that exam.

2. Professional Demeanor: It is expected that you will act with professional demeanor and attitude at all times. This includes, but is not limited to, being respectful at all times to the instructor and to your colleagues. It also expected that you refrain excessive talking, improper internet surfing or game playing, etc., on your computer or cell phone use in class. Please note that respectful communications are also expected when using email or the course discussion board. As a general rule, please refrain from any comments that you would be reluctant to say in person.

3. "Margin of Error Percent": Mistakes are sometimes made while grading exams; the good news is that they are usually addition errors, which I will happily "fix at no charge." Assigning partial credit is a subjective exercise and as such has a margin of error. I only worry about the errors in your favor. If you believe there has been a serious mistake on grading your exam, you may ask me to regrade the entire exam *up to one week after the exam is returned*, **but you forfeit** your margin of error percent. If you choose not to ask for regrades on exams (this does not include addition errors or marking errors on quizzes), a bonus of 2% is added to your overall score at the end of the term. ONLY ONE option if possible. *It is also possible to lose your margin of error percent due to unprofessional behavior.*

4. Dishonesty: I trust that the work you do in this course is your own. Academic dishonesty, will not be tolerated in this course. Cheating during any exam will be reported and the student will receive an "F" for the exam.

5. Accommodation: If you have a physical or learning disability and you need extra accommodation, please be certain you are registered with Disability Services and make appropriate arrangements with me.

6. Success: It is definitely possible to do well in this course. I am here to help you in any way that I can. I enjoy helping a willing student learn the material in this course. *Note: that if you become frustrated with the course for any reason, please do not hesitate to contact me, either by email, phone or in my office.*

### Email and Discussion Board Etiquette:

- When you are talking face to face or by telephone you get immediate feed back, however when using email you will not get this feed back. Take extra time to write your email, keep it short and to the point. Consider whether or not your message might be better suited to a phone call or in person meeting.
- Try this test on your email: Would you say this to the individual in person?
- Create subject lines that are descriptive enough for the reader to easily sort and filter the items. Indicate that you are a CH 221 student.
- If your message is important, mark it that way. Many software packages have this feature.

## Chemistry 221

### Lecture and Exam Schedule (Subject to Change)

#### Week 1

Date	Meeting/Day	Activity	Chapter	Material
Sept 24	1 / M	Lecture	1	Introduction
Sept 26	2 / W	Lecture/Problem	1	Elements – periodic table
Sept 28	3 / F	Lecture	1	Sig figs / Measurement

#### Week 2

Date	Meeting/Day	Activity	Chapter	Material
Oct 1	4 / M	Lecture/Problem	2	Elements - Mole
Oct 3	5 / W	Lecture	2 & 3	Nomenclature
Oct 5	6 / F	Lecture/ <b>Quiz</b>	3/1 & 2	Nomenclature

#### Week 3

Date	Meeting/Day	Time	Chapter	Material
Oct 8	7 / M	Lecture	3	Molar Mass / % composition
Oct 10	8 / W	Lecture	3	Empirical Formulas – Balanced Reactions
Oct 12	9 / F	Review	1-3	

#### Week 4

Date	Meeting/Day	Activity	Chapter	Material
Oct 15	10 / M	<b>Midterm</b>	1-3	
Oct 17	11 / W	Lecture	4	Stoichiometry - Limiting
Oct 19	12 / F	Lecture	4	Reactants Solutions/Titrations

#### Week 5

Date	Meeting/Day	Activity	Chapter	Material
Oct 22	13 / M	Lecture	4	Chemical Reactions
Oct 24	14 / W	Lecture/Problem	4	Solutions
Oct 26	15 / F	<b>Quiz/Lecture</b>	4/7	Quantum Mechanics

**Week 6**

Date	Meeting/Day	Time	Activity	Material
Oct 29	16 / M	Lecture	7	Quantum Mechanics
Oct 31	17 / W	Lecture	7	Hydrogen Atom
Nov 2	18 / F	Lecture	8	Periodic Table/Properties

**Week 7**

Date	Meeting/Day	Activity	Chapter	Material
Nov 5	19 / M	Lecture	8	Periodic Trends
Nov 7	20 / W	Review	7-8	
Nov 9	21 / F	<b>Midterm</b>	7-8	

**Week 8**

Date	Meeting/Day	Activity	Chapter	Material
Nov 12	22 / M	<b>Holiday</b>		
Nov 14	23 / W	Lecture	9	Electron Densities/Bonding
Nov 16	24 / F	Lecture/Problems	9	Lewis Structures

**Week 9**

Date	Meeting/Day	Activity	Chapter	Material
Nov 19	25 / M	Lecture	9	Lewis/Covalent Bonds
Nov 21	26 / W	Lecture	10	Bonding/Geometries
Nov 23	27 / F	<b>Holiday</b>		

**Week 10**

Date	Meeting/Day	Activity	Chapter	Material
Nov 26	28 / M	Lecture	10	Hybridization
Nov 28	29 / W	Lecture	10	Bonding Models / MO
Nov 30	30 / F	<b>Review</b>	1-4,7-10	All

**Final Exam**

Date	Day	Time	Activity	Material
Dec 5	W	10:15-12:05	Exam	Chap 1-4, 7-10

**Disclaimer:**

As the instructor of this course, I reserve the right to change the tentative schedule of topics, number and length of examinations, point distribution, course requirements, and percentages required for letter grades in order to better facilitate the learning process.