

# Chemistry 221 (sec 1)

## Syllabus Fall 2009

Instructor: Dr. Gwen Shusterman  
Science Building II, Room 350, 725-3897, email: shustermang@pdx.edu  
Web page: web.pdx.edu/~shusteg

Office Hours: tentatively, Mon 12-1, Wed 9-10, Thurs 11-12

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 Blackboard 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 loose 25% each day late and must be received by the next lecture date. *See lecture 1 notes for more details.*

Mastering Chemistry Course ID: MCSHUSTERMAN52707

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	B	C	D	F
	≥ 90%	≥ 80%	≥ 65%	≥ 55%	< 55%

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.” On any given exam, you may not perform up to your potential and your exam may not show how much you know. Exam scores have a margin of error. If you believe there has been a serious mistake on grading your exam, you may ask me to regrade the exam *up to one week after the exam is returned*. If I determine there has been an error in grading your exam and it increases your score by 5 or more points, I will again happily “fix at no charge”. If there is not a significant error on your exam and you have asked for a regrade, you will lose your 2% margin of error points. On the other hand, if you choose not to ask for regrades on exams (this does not include addition errors or grading errors I determine), a bonus of 2% is added to your overall score at the end of the term. *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.

### 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 28	1 / M	Lecture	1	Introduction
Sept 30	2 / W	Lecture/Problem	1	Elements – periodic table
Oct 2	3 / F	Lecture	1	Sig figs / Measurement

### Week 2

Date	Meeting/Day	Activity	Chapter	Material
Oct 5	4 / M	Lecture/Problem	2	Elements - Mole
Oct 7	5 / W	Lecture	2 & 3	Nomenclature
Oct 9	6 / F	Lecture/Quiz	3/1 & 2	Nomenclature

### Week 3

Date	Meeting/Day	Activity	Chapter	Material
Oct 12	7 / M	Lecture	3	Molar Mass / % composition
Oct 14	8 / W	Lecture	3	Empirical Formulas – Balanced Reactions
Oct 16	9 / F	Review	1-3	

### Week 4

Date	Meeting/Day	Activity	Chapter	Material
Oct 19	10 / M	<b>Midterm</b>	1-3	
Oct 21	11 / W	Lecture	4	Stoichiometry - Limiting Reactants
Oct 23	12 / F	Lecture	4	Solutions/Titrations

### Week 5

Date	Meeting/Day	Activity	Chapter	Material
Oct 26	13 / M	Lecture	4	Chemical Reactions
Oct 28	14 / W	Lecture/Problem	4	Solutions
Oct 30	15 / F	<b>Quiz/Lecture</b>	4/7	Quantum Mechanics

**Week 6**

Date	Meeting/Day	Time	Activity	Material
Nov 2	16 / M	Lecture	7	Quantum Mechanics
Nov 4	17 / W	Lecture	7	Hydrogen Atom
Nov 6	18 / F	Lecture	8	Periodic Table/Electrons

**Week 7**

Date	Meeting/Day	Activity	Chapter	Material
Nov 9	19 / M	Lecture	8	Periodic Table
Nov 11	20 / W	<b>Holiday</b>	8	Periodic Trends
Nov 13	21 / F	Review	4,7-8	

**Week 8**

Date	Meeting/Day	Activity	Chapter	Material
Nov 16	22 / M	<b>Midterm</b>	4,7-8	
Nov 18	23 / W	Lecture	9	Electron Densities/Bonding
Nov 20	24 / F	Lecture/Problems	9	Lewis Structures

**Week 9**

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

**Week 10**

Date	Meeting/Day	Activity	Chapter	Material
Nov 30	28 / M	Lecture	10	Hybridization
Dec 2	29 / W	Lecture	10	Bonding Models / MO
Dec 4	30 / F	<b>Review</b>	1-4,7-10	All

**Final Exam**

Date	Day	Time	Activity	Material
Dec 9	W	10:15-12:05	<b>Exam</b>	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.