

General Chemistry I Fall 2010
CHEM 1311

Professor Arthur L Meyer
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COURSE DESCRIPTION

➤ Covers the fundamental facts, laws, principles, theories, and concepts of chemistry necessary for further work in science or science-related subjects. Stresses atomic structure, periodic properties of matter, chemical bonding, and molecular geometry of organic and inorganic molecules, states of matter, stoichiometry, and properties of solutions.

PREREQUISITES

- High school chemistry or the equivalent
- Intermediate algebra (note: College Algebra is required for General Chemistry 2)

REQUIRED TEXTS/MATERIALS

- Chemistry, *The Central Science*, Brown, LeMay, et. al. Pearson/Prentice Hall Publishing, 2009.
- Calculator- scientific type, **no internet or phone calculators**
- Homework Notebook- separate from your lecture notebook- see format below.

INSTRUCTIONAL METHODOLOGY

- Lectures will be presented in PowerPoint format. Class Handouts are posted on the website and are to be printed out in advance of lectures. They contain all of the PowerPoint slides with some of the details and notes missing ... for you to fill in. All in-class practice problems are contained in the Class Handouts.

HOMEWORK

- Homework is to be kept in a separate notebook and is to be turned in at the end of the semester for a grade. Bring your homework notebook to my office when seeking help during office hours. See section on how to keep your notebook.

- **CLASS PARTICIPATION** Students are expected to work all problems as done in class, showing class participation. Points will be deducted if a different method is used (for example, if the text shows a different method, the method shown in class is the one to use.)

COURSE EVALUATION/GRADING SCHEME

- A=90-100 B=80-89 C=70-79 D=60-69 F<60
- 3 Quizzes = 70%; Final Exam = 25%; Homework = 5%

COURSE POLICIES

- There are no make-up or retest quizzes or exams given
- One quiz grade may be replaced by the grade on the final exam.
- The final exam will be comprehensive, covering all chapters (including reading assignments)
- Failure to take the final exam will result in a grade of "F" assigned for the course.
- Attendance is required (the student is responsible for all announcements made in class.)
- No recording devices allowed, except for documented special needs students
- Shut off all cell phones, beepers, watch chimes. Repeated offenses will have points deducted

COURSE RATIONALE

This course covers the fundamental facts, laws, principles, theories and concepts of chemistry necessary for further work in science or science-related subjects.

COMMON COURSE OBJECTIVES

See <http://www3.austincc.edu/catalog/descchem.htm>

Statement on Scholastic Dishonesty- See Student Handbook/College Catalog -latest edition

Statement on Students with Disabilities- See Student Handbook/College Catalog -latest edition

Statement on Academic Freedom- See Student Handbook/College Catalog -latest edition

Student Discipline Policy- See Student Handbook/College Catalog -latest edition

COURSE OUTLINE/CALENDAR

Unit	Chapter	Sections	Assignment
Introduction	1	.1-.6	11, 15, 16, 19, 20, 24, 25, 28, 31, 32, 35, 43, 44, 46, 49, 53, 54
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Formulas and Calculations	2	.6-.8	23, 25, 26, 43, 46, 49, 50, 51, 56, 58, 59, 63-68
	3	.3-.5	23, 25, 31, 33, 34, 38, 43c, 44c, 45, 51, 52
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Reaction Stoichiometry	3	.1,.2,.6,.7	11a-c, 13, 51, 52, 57, 63 b-c, 69-74, 77
	10	.4,.5	54, 56-58
	4	.5,.6	61, 63, 65, 69, 74, 80, 88
	13	.4	51, 52
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Reactions in Solution	4	.1-.4	11, 15, 19, 21, 23, 24, 33, 34, 39, 49-52, 54
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Atomic Structure and the Nucleus	2	.1-4	1, 3, 7, 9, 16, 17, 27, 31
	6	.1-9	10, 11, 15, 18, 24, 31, 35, 38, 49, 50, 60, 61, 64, 66, 67, 82
	21	.1,.2	7, 9-13, 17-20
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Periodicity	7	.1-.6	11, 23, 25, 27, 28, 41, 44, 48, 51, 83
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Bonding	8	.1-.7	7, 11, 12, 15, 19, 21, 30, 32, 34, 36, 37, 40, 46, 49, 52, 54, 62
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Molecular Structure	9	.1-.7	15, 18, 21, 22, 31, 32, 35, 36, 47, 48, 54, 55, 60, 63, 76, 79, 96
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Acid/Base Theory	16	.1,.2,.11	15-19, 101b-c, 102 b-c
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<i>As Time Permits:</i>			
Liquids and Solution Properties	11	.1,.2,.5	9, 16a-b, 17a, 46, 49
	13	.4,.5	37a, 38a, 39, 43b,d, 47a, 48a, 59, 61a, 63, 64
	10	.6	
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Homework Notebook

Your homework notebook must be in the following format:

1. The notebook must be bound- spiral or composition (no loose leaf notebooks or 3 ring binders!)
2. All pages are to be numbered consecutively (no torn out pages, no additional pages).
3. Each page should be dated and the chapter being worked, indicated.

Hint: I should be able to open your homework notebook to any page and know what chapter the homework is from and the date you worked on the assignment.

Exam Dates

Quiz 1 Thursday, September 23

Quiz 2 Tuesday October 19

Quiz 3 Thursday, November 18

Final Exam Thursday, December 9