

**WEST VALLEY COLLEGE**  
**CHEMISTRY DEPARTMENT**  
**Spring 2012**

**COURSE TITLE**

Chemistry 30A, Fundamentals of Chemistry

**INSTRUCTOR**

Dr. Blaine Harrison    Tel#: (408) 741-4017    email: [blaine.harrison@westvalley.edu](mailto:blaine.harrison@westvalley.edu)  
Web site: <http://instruct.westvalley.edu/harrison/harrison.html>

**OFFICE HOURS**

M: 11:45-12:30 T: 11:45-12:30 W: 11:45-12:30 Th: 11:45-12:30 SM19A

**MEETING TIMES**

Lecture: T,Th 12:30-1:35 pm, SM36

Lab: T 1:45-4:55 Th 1:45-4:55 pm, SM20

**REQUIRED MATERIALS**

- 1) Denniston, Topping, Caret General, Organic, and Biochemistry, 7th Edition McGraw-Hill Higher Education
- 2) S. A. Weiner, E. I. Peters, Introduction to Chemical Principles. A Laboratory Approach, 7th Edition, Saunders Publishing Co.
- 3) Safety Goggles (Bookstore; if purchased elsewhere, must be approved by your instructor)
- 4) Scientific calculator, Periodic Table, **Stapler**

**Optional Materials**

Student study guide/ solution manual

Lab coat.

## Grading Scheme

<u>Minimum Course Score</u>	<u>Grade</u>	Course score formula
90%	A	$\frac{(3*M + F + L + HW)}{6.7} = G$
80%	B	
65%	C	
55%	D	

		Possible Points
	M= Average of three midterm exams	300
Advanced Study Guide 2 pts	F= Final exam score	200
Lab 8 pts	L= Laboratory score	120
	HW= Homework	50
	G= Grade in the course	

Total Points Possible=670

**Lecture**- Each of three Midterm exams will be worth 100 points, homework will be worth 50 pts, and the comprehensive final exam will be worth 200 points. Work must be shown to receive credit. If a student is absent during any exam, he/she will receive a grade of zero. At the discretion of the instructor, a makeup exam may be allowed for an urgent medical or legal situation which prevents a student from attending class. In such cases, all of the following requirements will apply: 1) Student must present documentation of the reason for absence (letter from doctor or court official, including address and phone number) to the instructor on the day student returns to school, 2) Exam must be made up within two days of missed exam, 3) Only one make-up exam is allowed per semester. Unethical behavior of any kind is not tolerated and will result in the student failing that assignment. Students must be registered to attend lab and have material graded.

**Homework**- Homework will be collected and graded. Homework is due in the first five minutes of class after which it will be considered late. Late homework will not be accepted. One homework will be dropped and those points not considered. Homework will be handed out separately and the problems in the book will not be collected.

**Laboratory**- **All assigned laboratories and worksheets must be completed in order to pass the course.** A problem-solving assignment or worksheet is considered a lab experiment and must be completed before leaving lab. Lab reports and worksheets are due on the next lab day and are due within the first five minutes of the scheduled lab

period. If a lab report is turned in late it will be penalized twenty percent per day. For all laboratory experiments, the advance study assignment sheet must be completed prior to the beginning of the lab period. Late study guides will be penalized the same as lab reports. **Make-up labs will not be permitted.** If you are unable to complete an experiment from start to finish during the week that is scheduled, you may satisfy the requirement for that experiment by completing and turning in extra homework problems. The student must discuss each make up assignment with the instructor prior to beginning the make up work. The make up problems will be due within two weeks of the missed lab. Only a few labs can be made up in this fashion. If two lab reports are turned in with identical data each student will receive a zero for that lab.

**Attendance-** Attendance is required in all labs. Students are expected to attend all classes. It is the students responsibility to officially drop the class if they wish to. Failure on the part of the student to do so will result in a failing grade. All students (officially registered, dropped, or withdrawn) must check out of the lab before the end of the semester (last lab day). If you do not check out of lab by the last day, a hold will be placed on your records, and no grades will be issued.

**Success-** To be successful in a chemistry course requires diligence and taking advantage of the resources available.

- 1) Go to office hours.
- 2) Go over in detail past mistakes on homework and exams.
- 3) Read ahead and prepare for lecture.
- 4) Attend class on a regular basis.
- 5) Do all assigned homework and do as many unassigned problems as possible (even numbered answers are in the back of the book)
- 6) Study hard, at least 6-10 hours per week.
- 7) Form study groups.

**Emergency-** In case of an emergency a specific location will be selected as a meeting point. Under any circumstances, do not leave the campus unless authorized to do so.

**Disabilities-** West Valley College makes reasonable accommodations for persons with documented disabilities. Students should notify the Disability and Educational Support Program (DESP) at 741-2010 of any special needs.

**Chemistry 30A: Lecture Schedule T-Th 12:30-1:35**

<u>Week</u>	<u>Date</u>	<u>Day</u>	<u>Chapter</u>	<u>Sec</u>	<u>Topic</u>
1	1-31	T	Intro		Syllabus
	2-2	Th	1	1-2	Chemistry Methods and Measurements
2	2-7	T	1	3	
	2-9	Th	1	4	
3	2-14	T	1	5	
	2-16	Th	2	1-2	<b>HW#1 Due:</b> The Structure of the Atom and
4	2-21	T	2	3-4	The Periodic Table
	2-23	Th	2	5-6	<b>HW#2 Due:</b>
5	2-28	T	9	1-7	
	3-1	Th	<b>EXAM #1 Chapters 1,2,9</b>		
6	3-6	T	3	1-2	Structure and Properties of Ionic and
	3-8	Th	3	3-4	Covalent Compounds
7	3-13	T	4	1-2	Calculations and the Chemical Equation
	3-15	Th	4	3-4	
8	3-20	T	4	5	
	3-22	Th	5	1	<b>HW#3 Due:</b> States of Matter: Gases, Liquids, Solids
9	3-27,29		T,Th	<b>Spring Break</b>	
10	4-3	T	5	2	<b>HW#4 Due:</b>
	4-5	Th	5	3	
11	4-10	T	<b>EXAM #2 Chapters 3,4,5</b>		
	4-12	Th	6	1-2	Solutions
12	4-17	T	6	3	
	4-19	Th	6	4-10	
13	4-24	T	6	5-6	
	4-26	Th	8	1	<b>HW#5 Due:</b> Acids and Bases
14	5-1	T	8	2-3	
	5-3	Th	8	4	
15	5-8	T	7	1-3	<b>HW#6 Due:</b> Energy, Rate and Equilibrium
	5-10	Th	7	4	

16	5-15 T	<b>EXAM #3 Chapters 6,7,8</b>
	5-17 Th	Review
16	<b>5-22 T</b>	<b>COMPREHENSIVE FINAL EXAM 11:50-1:50</b>

**Chemistry 30A  
Laboratory Schedule, Sp 2012**

<u>Week</u>	<u>Date</u>	<u>Experiment</u>
1	1-31,2-2	Lab Safety, Green Sheets
2	2-7,9	Exp#4: Density of Liquids and solids
3	2-14,16	Exp#3: Chromatography
4	2-21,23	<b>Worksheets 1:</b> Sig. Figures pg 460, Dimensional Analysis Pg 461
5	2-28,3-1	Lab Check-in, Exp#13: Qualitative Analysis of Some Common Ion
6	3-6,8	Exp#15 Molecular Models: A Study Assignment
7	3-13,15	Exp#9 Chemical Names and Formulas: A Study Assignment
8	3-20,22	<b>Worksheets 2:</b> Mole Worksheet pg 462, Stoichiometry pg 465
9	3-27,29	<b>SPRING BREAK</b>
10	4-3,5	<b>Worksheets 3:</b> Gases pg 467
11	4-10,12	EXP#16 Molar Volume of a Gas
12	4-17,19	EXP#18 The conductivity of Solutions
13	4-24,26	<b>Worksheets 4:</b> Solutions pg 468
14	5-1,3	Exp#20: Titration of Acids and Bases: An Introduction
15	5-8,10	Exp#21: Titration of Acids and Bases: Check out.
16	5-15,17	Check Out

**Suggested Homework Problems**  
For 7<sup>th</sup> Edition Denniston, Topping, Cart

<u>Chapter</u>	<u>Problems</u>
<b>1</b>	ODD 1-9,15,23, ODD 27-41, 47,51,53,57,59,63,65, ODD 69-93
<b>2</b>	ODD 3-9,13,15, ODD 19-29, 45,55,59,63,67, ODD 77-89
<b>3</b>	1,5,7,9, ODD 13-19, ODD 23-49, ODD 57-69,77,79
<b>4</b>	ODD 5-21, ODD 25- 43,59, ODD 63-67, ODD 73-87
<b>5</b>	1,3,13,25,31, ODD35-41,47, ODD 51-69, 73,75,79,83,87
<b>6</b>	3,5, ODD 9-23, ODD 29-47,57, ODD 63-71,75,81
<b>7</b>	3,5,7,11,13,15,21,27,29, ODD 33-49,53,55,57,67
<b>8</b>	ODD 1-7,11, 25, 31,33,35,37,43,47,53,59,63
<b>9</b>	5,7, ODD 13-17, ODD 21-29, 4,51,61,63,69,71,73, ODD 81-85, 89,91,93

Student Learning outcomes:

Lec: Complete basic calculations and problems by applying fundamental unit conversion. Lab:  
Demonstrate laboratory skills to support chem30A.