

De Anza College
CHEMISTRY 25
MECHANICS OF THE COURSE
Fall '15

Due to the very high demand for this class, any student missing any class the first two weeks will automatically be dropped to make room for another student. Be sure to be in class on time. You may have some difficulty parking as Parking Lot E is currently torn up. Allow extra time to find a parking place. Also any student leaving class early will be dropped.

I. Instruction - Mr. Howard Garnel

E-mail: garnelhoward@deanza.edu

OFFICE HOURS – Tues & Thurs 4:30 PM – 5:30 PM

Office Hour Location – SC1, upstairs, Faculty Offices

II. Purpose of the Course – The Main Purpose of this course is to give you (the student) a sufficient background in the fundamentals of chemistry in order to be successful in Chem 1A.

**III. Textbooks - "Introductory Chemistry" (Concepts and Connections),
Corwin , (5 or 6)th Ed.**

"Introductory Chemistry – Study Guide + Solutions Manual",
Corwin, (5 or 6)th ed (Optional)

"Introductory Chemistry – Lab Manual", Corwin, 6th Ed.

Do not purchase a used Lab Manual without first checking to determine that all pages for our experiments are present.

Other Items Needed – Safety Goggles (only the type available in the bookstore are acceptable. NO EXCEPTIONS, and a NON-Programmable (non-graphing) "Scientific" calculator (TI 30A Series recommended) (Needed First day of lecture)

Cell phones my not be used in class as a calculator at any time. If you have a cell phone out in class you will be asked to leave the class.

IV. Grading -	Exams (3)	100 points each
	Quizzes	150 points total
	Final Exam	100 points
	Lab Reports (8 or 9)*	100 points total
	Lab Final	50 points

Six or seven lab reports will be graded on a 10 point basis (two will be worth 20 points each). The total number of lab points will then be divided by 1.0 or 1.1 giving a total of 100 points for the lab portion of your grade.

Semester grades will be based on the total number of points accumulated at the end of the semester out of 700 possible points, **88% for an A, 78% for a B, 68% for a C and 58% for a D**. Grades of incomplete, "I" will be given only for documented extenuating circumstances. These minimum percentages may be lowered at the instructor's discretion, but they will not be raised. **It is the student's responsibility to keep a record of his/her scores on labs quizzes and exams in order to determine his/her standing in the class.**

Cheating will not be tolerated in any manner. Any evidence of **dishonesty** in class regarding exams and/or lab reports will be used as a potential basis for **dismissal** from this course with a grade of "F". In the lab all students must perform his/her **own** work and only use his/her own data unless approved by the instructor. Use of someone else's data, calculations etc. is dishonest and will be treated as such.

**All work turned in to me asking for your name must be shown as
LAST NAME, FIRST NAME**

V. Labs, Quizzes and Exams -

Labs - There will be **8 or 9** experiments that must be completed to obtain a passing grade in this class. In order for you to perform these experiments you must...

1. Have your own personal safety goggles. (Keep these in your lab locker)

2. Complete the "Pre-Lab Assignment" sheet for that experiment **PRIOR** to the **STARTING TIME** of the lab. These "**Pre-Lab Assignment Sheets**" are due at **7:30 PM** on the date of the lab. If you are late to lab they will not be accepted for credit. There **will be no time to work on these sheets in class**. The problems on the "**Pre-Lab Assignment Sheets**" must be **set up and solved** for credit. **No credit** for just the answer **even** if the answer is correct. The "**Pre-Lab Assignment Sheets**" are worth **2** of the **10** points for each experiment. Pre-labs will be confiscated from students working on them during lecture.

3. Lab reports will be due at the **beginning of your next lab session (7 days later) at 7:30 PM.**

Late "Lab Reports" will be graded for **half** credit up to one week late. After that they will receive no points. All labs must be completed to receive a passing grade in the course. Lab reports will not be graded for credit after 1 week from the due date. There is no time for making up a lab.

4. In addition the instructor reserves the right to prohibit any student from working in the lab if in the instructor's judgment, a student presents a safety hazard to himself/herself or any other person(s) in the class.

5. In the lab you may work with **one** partner (**ONLY ONE**). Both students are expected to be recording their data throughout the experiment (**NO COPYING YOUR**

PARTNERS DATA AT THE END OF THE LAB). Each student is expected to **actively** participate in performing the experiment in the lab.

6. If you are unable to complete an experiment due to absence (for any reason) you may satisfy the requirement for that lab by writing a 2 or 3 page paper on a **full feature article (6-8 pages)**, from **ANY** issue of **Scientific American** on a topic dealing with some **aspect of chemistry**. **Be sure to include a copy of the article with the paper.** Scientific American is available online, in the library, Barnes and Noble, etc. The paper (like the lab report) is due **one week from the missed lab** and will lose points for being late just like a lab report. The paper must show that you have completely read and comprehend the article. You may also have to discuss the article with the instructor. Only **ONE** missed lab may be made up in this manner. **If a second lab is missed for any reason you will automatically be dropped from the class with a failing grade.** There is no time outside of class for make-up experiments.

7. The last day to turn in **all** lab work is **your last lab** meeting **Tues Dec 1 or Thurs Dec 3 at 7:30 PM**. Lab work will not be graded for credit after that. This includes all lab reports, worksheets and Scientific American Reports (if any).

Quizzes – There will be between 8 and 13 quizzes in lecture. I will drop one quiz (your lowest). If we have 12 or more I will drop your two lowest quizzes. The quizzes will be worth 150 points (**equivalent to one and a half exams**). There are no make-up quizzes. If you miss a quiz for any reason, that will be the quiz that is dropped. If you miss more than one quiz you will receive a zero on any additional quizzes that are missed. This is another reason to attend all classes and be on time. You will not get extra time if you are late to class. Quizzes are unannounced, but you should expect one in almost every lecture session. Any questions regarding the grading of a quiz must be presented and resolved on the day that the quiz is returned to you.

Exams – Only NON-programmable (graphing calculators are programmable) Scientific calculators may be used on exams and quizzes. Make-up exams can be given only for **documented** legitimate cause. If you cannot take a scheduled exam, notification must be given to the instructor **prior** to the exam by e-mail (garnelhoward@deanza.edu). Be sure to leave a **phone number where I can reach you that day**. Unless I approve of your absence a missed exam represents a **zero** and cannot be erased. Arrangements must be made at this time for a make up. Also **no exams will be dropped** in this class (all exams are used to compute your final grade in the class).

- Please do not attempt to **plea bargain** more points on graded papers (**labs & exams**).
- There is no extra credit available in this class.

VI. Instructional Methods - The class is taught in a lecture-discussion format. Much complex material is contained in this class. In order for you to effectively learn this material it is

inherent that you properly prepare for each class. **This includes your reading the material prior to coming to class.** This is a very important part of the learning process and will significantly enhance your ability to comprehend the material.

You should plan on study time of **at least 2 hours** for each hour of lecture for you to be successful in this class. Trust me this is necessary for the class. **If you cannot commit to this, you will not be successful in this class.**

It is also imperative that you review and practice the material presented as soon as is possible after each lecture while the material is still fresh in your mind. The longer that you wait the more difficult it will be and will require significantly **more total time.**

You may even find that you will enjoy the class!!!!

VII. Specific Objectives - Students will be expected to answer questions and solve problems similar to those assigned for this class (text and worksheets).

VIII. Other Items –

- **Tardies** - Excessive tardies (**more than two** for the quarter) may result in a **lowering** of your grade.
- **Attendance** - Students are expected to attend all classes. A student may be dropped for excessive absences. See college policy in the **current college catalog**. If a student wishes to drop a class, it is his/her responsibility to complete the drop process **including checking-out in the lab**. If he/she does not do this and is still on the roll at the end of the quarter a grade of "F" will be received in the class. Also I will **not** back date drop slips.
- All **electronic communications & music devices (cell phones, ipods, mp3 players etc.)** must be turned off in both **lecture** and **lab (and no earphone in your ears)**. It is **NOT OK** to leave lecture to answer cell phones. This is disruptive to the class and not fair to your fellow students. **Texting** during class will be grounds for removal from class. Failure to follow these rules will result in **expulsion from this class**. Please do not let this happen.
- Be sure to remove hats, hoods, ear phones etc in class.
- If a student's behavior is disruptive to the class, the instructor may remove the student from the class. If it happens more than once the instructor may drop the student from the class with a grade of "F" in the class.
- Be sure to sit only in the designated seats for the class the class.

IX. Final Exam – Tues. Dec. 8, 4:00 PM – 6:00 PM I will not accommodate requests for an alternate date.

Fall 2015		CHEMISTRY 25	
Corwin, 6th Ed		H. Garnel	
LECTURE AND STUDY ASSIGNMENT SHEET			
LECTURE ASSIGNMENT	SECTIONS	PAGES	PROBLEMS/Exercises
Chapter 2 "Scientific Measurements"			
Measurements, Scientific Notation & Significant Figures (1 & 2)	2.1 - 2.8	13 - 27	1 - 53 (odd)
Unit Analysis (3)	2.9	27 - 30	55 - 65 (odd)
Chapter 3 "The Metric System"			
Dimensional Analysis (4)	3.1 - 3.4	41 - 52	1 - 27 (odd)
Volume and Density (5)	3.5 - 3.7	52 - 62	29 - 49 (odd)
Temperature and Heat (5)	3.8 - 3.9	62 - 68	51 - 63 (odd)
Chapter 4 "Matter and Energy"			
Matter & Elements (6)	4.1 - 4.3	75 - 83	1 - 21 (odd)
The Periodic Table (6)	4.4	83 - 88	23 - 33 (odd)
Chapter 5 "Models of the Atom"			
Atomic Notation (7) & Atomic Structure (7)	5.4	115 - 118	17 - 23 (odd)
Atomic Mass (8)	5.5	118 - 121	25 - 37 (odd)
Electron Configuration (9, 10)	5.6 - 5.11	121 - 135	53 - 89 (odd)
Chapter 6 "The Periodic Table"			
Chemical Families (11)	6.1 - 6.3	143 - 149	9 - 27 (odd)
Periodic Trends (12)	6.4 - 6.6	149 - 155	29 - 55 (odd)
Valence Electrons & Charge (13)	6.7 - 6.10	155 - 163	57 - 79 (odd)
<13>		Exam # 1	
Chapter 7 "Language of Chemistry"			
Formulas of Ionic Compounds	7.1 - 7.6	171 - 186	1 - 43 (odd)
Molecular Compounds (15)	7.7	186 - 188	45 - 47 (odd)
Chapter 8 "Chemical Reactions"			
Balancing Equations (16)	8.1 - 8.6	200 - 211	1 - 45 (odd)
Single Replacement (16)	8.8	217 - 219	53 - 65 (odd)
Double Replacement (17)	8.10	220 - 221	71 - 73 (odd)
Chapter 9 "The Mole Concept"			
The Mole & Molar Mass (18, 19)	9.1 - 9.4	233 - 241	1 - 21 (odd)

LECTURE AND STUDY ASSIGNMENT SHEET			
LECTURE ASSIGNMENT	SECTIONS	PAGES	PROBLEMS
Chapter 10 "Chemical Equation Calculations"			
Stoichiometry (20, 21)	10.1 - 10.4	261 - 269	1 - 27 (odd)
Limiting Reactant (22)	10.7 - 10.9	275 - 282	49 - 77 (odd)
<23>	EXAM # 2		
LECTURE ASSIGNMENT	SECTIONS	PAGES	PROBLEMS
Chapter 11 The Gaseous State"			
Properties of Gases (24)	11.1 - 11.3	291 - 296	1 - 13 (odd)
Gas Laws (24, 25, 26)	11.4 - 11.1	296 - 314	15 - 65 (odd)
Chapter 12 "Chemical Bonding"			
Chemical Bonds(26)	12.1 - 12.3	323 - 330	1 - 37 (odd)
Structural Formulas (27, 28)	12.4 - 12.7	330- 342	39 - 57 (odd)
Molecular Geometry (28, 29)	12.10	344 - 347	71 - 77 (odd)
Chapter 14 "Solutions"			
Solutions (30)	14.1 - 14.7	385 - 397	1 - 41 (odd)
Concentration, Dilution (30, 31)	14.8 - 14.10	397 - 403	43 - 67 (odd)
Chapter 16 "Chemical Equilibrium"			
Collision Theory (32)	16.1 - 16.3	449 - 457	1 - 19 (odd)
Keq & LeChatelier's Principle	16.4 - 16.9	458 - 472	21 - 55 (odd)
Chapter 15 "Acids & Bases"			
Naming Acids (35)	7.8 - 7.9	188 - 190	49 - 55 (odd)
Properties of Acids & Bases (35)	15.1 - 15.4	413 - 421	1 - 25 (odd)
Kw and pH (36)	15.7 - 15.1	426 - 439	45 - 77 (odd)
Neutralization Reactions (37)	8.11	221 - 223	75 - 77 (odd)
<38>	Exam # 3		
Chapter 17 "Oxidation Reduction"			
Redox Equations (39, 40)	17.1 - 7.4	482 - 497	1 - 35 (odd)
Electrochemical Cells (41, 42)	17.6 - 17.7	500 - 505	47 - 61 (odd)
	Lab Final		
	Final Exam	Tues. Dec. 8, 4:00 PM – 6:00 PM	