

De Anza College
CHEMISTRY 30A
MECHANICS OF THE COURSE
Fall 2019

CRN: 21592 and 23677, Chem 30A “Introduction to General, Organic and Biochemistry” Sections 61 and 62

Due to the very high demand for this class, any student missing any class (lecture or lab) the first two weeks of class will automatically be dropped to make room for another student. NO EXCEPTIONS. Be sure to be in class on time. Also any student leaving class early will be dropped.

I. Instruction - Mr. Howard Garnel

E-mail: garnelhoward@fhda.edu

Office Hours ; Tues and Thurs 4:30 to 5:30PM

SCI Up Stairs, Faculty Offices Across from the Labs

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 pursue careers in the health sciences etc. and to prepare you for Chem 30B.

III. Textbooks - **LEC** Smith. General, Organic, & Biological Chemistry. 4 th Ed

LAB The lab Manual is located at this link:
<http://www.deanza.edu/chemistry/Chem30A.html>

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 class**)

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 (4)	100 points each
	Final Exam	150 points
	Lab Reports (7) [20 pts ea]	140 points total
	Lab Final	60 points
	Homework	100 points
	Possible Points	850 points

Semester grades will be based on the total number of points accumulated at the end of the semester, 90% for an A, 80% for a B, 70% for a C and 60% 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, homework 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".

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

V. Homework - Homework will be worth 100 points towards your grade in the class. Each worksheet will be graded on a 10 point basis. The total number of points accumulated will then be divided by the number of points possible and then multiplied by 100. E.g. We will have 16 worksheets. For example, if you have a total of 85 points on sixteen work sheets your homework, then your points out of 100 will be $85/160 \times 100$ or 53 points (out of 100 possible). Homework, (all worksheets associated with that exam) will be due in the beginning of class at 5:30 PM, (after 5:30 PM it is late) on the day of each exam. Late homework will be graded at **half credit** up to one class late. No credit after that.

Only original work will be accepted. All work must be neat and legible. Worksheets must be in proper order e.g. Cover sheet, 1, 2, 3, 4 and 5. One staple in the upper left hand corner of all pages. There is **no stapler** in class. No loose sheets will be accepted. Only half credit if work is difficult to read e.g. too light, too small etc. Pencil is OK for homework but it must be **DARK**. **Absolutely no photocopies** of your homework will be accepted.

VI. Exams – Only **NON-programmable (graphing calculators are programmable)**

Scientific Calculators may be used on exams. Absolutely NO cell phones.

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** for more points on graded papers (**labs, homework & exams**).
- If you wish to question the grading of any item (exams, lab reports, homework etc.) it must be resolved on the **day** that the item is returned to you.

VII. 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. Less than this and 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 to learn the material.** Trust me this is necessary for the class. **If you cannot commit to this, you will not be successful in this class.**

You may actually find that you will enjoy the class.

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

IX. Other Items –

- **Tardies** - Excessive tardies (**more than two** for the quarter) may result in a **lowering** of your quarter grade.
- **Attendance** - Students are expected to attend all classes. Excessive absences (**more than two** for the quarter) may result in a **lowering** of your quarter grade. A student may be dropped for absences in excess of 3. See college policy in the **current college catalog**. If a student wishes to drop or withdraw from this 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 (both lecture and lab).
- 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.
- If you wish to question the grading of any item (exams, lab reports, homework etc.) it must be resolved on the **day** that the item is returned to you.
- Be sure to sit only in your designated seat for the class.
- Shorts may not be worn in the Lab at any time.
- 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.
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X. Final Exam – Tuesday Dec. 10, 2019, 6:15 PM to 8:15 PM

I will not accommodate requests for an alternate date or time.

XI. The Laboratory –

Labs - There will be 7 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 (only the type, available in the bookstore are acceptable. NO EXCEPTIONS.

2. Completed Pre-Lab Assignment Sheet-

Before each new experiment, you are required to write out a pre-lab sheet. This will be due at the beginning of the lab at 7:30 PM. It will be worth 5 of the 20 points possible for each Lab. I do not accept these late after 7:30 PM. So be sure to be in class on time. **Only use a Pre-lab sheet form that you can find in your documents folder.** They must be **handwritten neatly.** **No photocopies will be accepted.**

You may summarize the procedure but you should still be able to perform the experiment with this sheet only. **WITHOUT USING THE ACTUAL PROCEDURE AS OUTLINED IN THE EXPERIMENT.**

There are four reasons why I insist you complete a pre-lab sheet:

Safety • If you have not even bothered to read the procedure for an experiment before coming to class, you are not aware of the hazards you might encounter. You are therefore a danger both to yourself and the other students in class.

Courtesy • If you are not prepared for an experiment and you are constantly asking people around you for help, you are disturbing others – and a hazardous distraction – to those people who did take the time to properly prepare for their experiment.

Efficiency • If you do not review an experiment at least once before coming to lab, you will waste a lot of time trying to figure out how to conduct that experiment, which means you may not have enough time to finish your experiment.

Learning • If you do not read the experiment before lab, you have little chance of retaining anything meaningful from the lab experience. Hence you will not be as well prepared for the lab final in the class.

3. The Lab Notebook - **Prior to coming to lab on Tue Sept. 24 Sec. 61, or Thurs Sept. 26 Sec. 62** your notebook needs to be prepared as shown in the document **“The Laboratory Notebook”**. (It will be checked in the beginning of the lab). If not properly set-up you will not be able to work in the lab that day resulting in a zero for that experiment.

4. Lab reports will be due at the **beginning of your next lab (after completing each experiment) at 7:30 PM**.

Late “Lab Reports” Coming in after **7:30 PM** 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 one week after the due date. There is no time for making up a lab.

5. 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.

6. 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 (-10 points if you do this)). Each student is expected to actively participate in performing the entire experiment in the lab.

7. Missed Labs - 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**.

The paper is due **when the missed experiment is due** 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.

8. The last day to turn in **all** lab work is **Tues Dec. 3 for Sec.61 and Thurs Dec. 5 for Sec. 62.**

Lab work will not be graded for credit after that. This includes all lab reports, worksheets and Scientific American Reports (if any).

XII. Safety in the Lab

From the American Chemical Society Safety In Academic Laboratories Guidelines, 7th Ed., the following mandatory minimum safety requirements must be followed by all students and be rigorously enforced by all Chemistry faculty:

- 1)** Chemistry Department-approved safety goggles purchased from the De Anza College bookstore (NOT safety glasses) must be worn at all times once laboratory work begins, including when obtaining equipment from the stockroom or removing equipment from student drawers, and may not be removed until all laboratory work has ended and all glassware has been returned to student drawers or the store room.
- 2)** Shoes that completely enclose the foot are to be worn at all times; NO sandals, open-toed, or open-topped shoes, or slippers, even with socks on, are to be worn in the lab.
- 3)** Shorts, cut-offs, skirts or pants exposing skin above the ankle, and sleeveless tops may not be worn in the lab: ankle-length clothing must be worn at all times.
- 4)** Hair reaching the top of the shoulders must be tied back securely
- 5)** Loose clothing must be constrained.
- 6)** Wearing "...jewelry such as rings, bracelets, and wristwatches in the laboratory..." should be discouraged to prevent "...chemical seepage in between the jewelry and skin...".
- 7)** Eating, drinking, or applying cosmetics in the laboratory is forbidden at ALL times, including during lab lecture.
- 8)** Use of electronic devices requiring headphones in the laboratory is prohibited at ALL times, including during lab-lecture.
- 9)** Students are advised to inform their instructor about any pre-existing medical conditions, such as pregnancy, epilepsy, or diabetes, that they have that might affect their performance.
- 10)** Students are required to know the locations of the eyewash stations, emergency shower, and all exits.
- 11)** Students may not be in the lab without an instructor being present.

Student Learning Outcome(s):

*Solve stoichiometric problems by applying appropriate molar relationships.

*Identify the differences between elements and compounds and describe the chemical bonding in compounds- ionic vs. covalent.