Welcome to
Chemistry 1A, General Chemistry
Summer 2019

Instructor:

Dr. Cinzia Muzzi
Office: SC1224, Phone: 408-864-5790
e-mail: muzzicinzia@fhda.edu

Course Information:

This class is divided into two separate instructional periods: a **lecture period** devoted to the primary course material and a **lab period** for conducting lab experiments. One registration code automatically enrolls you in all three periods. Everyone will have the same lecture period, but a different lab lecture and lab period depending on which code you used for enrolling. **At De Anza College the lab and lecture cannot be taken as separate courses under any circumstances. Once you are enrolled you may not switch lab lecture or lab periods whether on a temporary or on-going basis.**

Required Materials:

1. ***Chemistry: The Molecular Nature of Matter and Change, 8th edition*** by ***Martin Silberberg*** (McGraw-Hill)
2. On-line Chemistry laboratory manual https://www.deanza.edu/chemistry/Chem1A.html (Open Source)
3. A scientific calculator that has at least log and exponential functions is required (~ $12). **Graphing calculators will not be allowed!**
4. 8.5 x 11 permanently bound **laboratory notebook with duplicate copies**.
5. OSHA approved **laboratory safety goggles from the bookstore**. Other types of goggles will not be permitted.
6. **Latex or Nitrile Gloves** available from the bookstore.

Chemistry 1A Web Site: https://www.deanza.edu/faculty/muzzicinzia/

Registration, Attendance, and Conduct Policy:

Registration: Due to safety concerns, enrollment in each section is strictly limited to 30 students per section. Class spaces are filled in accordance with the official class roster from Admission and Records, followed by the official wait list. Any errors with registration or status must be addressed directly to Admission and Records. Please note that if you are placed in a section from the wait list, you will not be assigned a laboratory locker or be allowed to perform experiments until you are **officially** enrolled in the class.

Attendance: Attendance is expected during all lectures, all lab lectures, and all laboratory periods. Students are expected to be prompt and to leave only when lecture or lab is concluded. Arriving late to lecture is disruptive to the class and **strongly** discouraged. **If you miss lecture, laboratory lecture, or a laboratory period for any reason within the first two weeks of class, you will be dropped from the course.**

Dropping the Course:
If you choose to drop the course **at any point** during the quarter, it is **your** responsibility to withdraw from the course through Admissions and Records by the appropriate deadline. You are required to officially check out of your lab locker whether you remain in the course or drop the course. Failure to check out of lab by the scheduled check-out date will result in an administrative fee and a block will be placed on your future registration.

OTHER IMPORTANT POINTS:
If you miss a laboratory period during the first week of the quarter, you will be dropped from the course**. THERE AFTER TWO OR MORE UNEXCUSED ABSENCES FROM LAB WILL RESULT IN AN AUTOMATIC "F" FOR THE ENTIRE COURSE.**

IF YOU ARE DROPPED FROM THE COURSE DURING THE FIRST WEEK OF CLASS YOUR LOCKER WILL BE INSPECTED AND MAY BE REASSIGNED TO ANOTHER STUDENT. YOU WILL BE HELD RESPONSIBLE FOR ANY BROKEN OR MISSING LAB EQUIPMENT PRIOR TO REASSIGNMENT.

IF YOU FAIL TO CHECK OUT OF LAB YOU WILL ALSO BE CHARGED AN ADMINISTRATIVE FEE AND A BLOCK WILL BE PLACED ON YOUR REGISTRATION.

Conduct: **The ringer on all cell phones and beepers must be turned off during lecture and lab periods**. Please only answer your cell phone if it is an emergency. Please notify me if you need to leave the lab for any reason. Students are also expected to abide by the Academic Integrity policy as outlined in the De Anza College catalog at all times. Students caught cheating or plagiarizing on any assignment will be expelled from the course and receive a grade of "F." If collusion between students to cheat can be demonstrated, each student will receive this same penalty.

Class Format:

Grading and Exam Schedule (Exam dates are tentative):

Exam I:	150 pt
Exam II:	150 pt
Exam III:	150pt
(The lowest exam score will be dropped)	300 pt
Final Exam:	300 pt
Laboratory Reports (10 pt each) (Lowest score will be dropped)	100 pt
Laboratory Notebook (5 pt each) (Lowest score will be dropped)	50 pt
Laboratory Final (75 pt)	75 pt
	825pt

Grade Scale:

% of Total Points Possible	Grade
98-100	A+
92-97	A
89 - 91	A–
85 - 88	B +
82 - 84	B
79 - 81	B–
75 - 78	C +
68 - 74	C
64 - 67	D +
61 - 63	D
58 - 60	D–
less than 58%	F

Dr. Muzzi reserves the right to change exam dates as well as modify the grade scale at any point during the quarter.

Tentative Exam Dates:
There is an exam scheduled approximately every six-seven lecture periods. The dates are listed on the schedule provided. Be aware that exam dates may change depending on the timing of the material presented in lecture.

Lecture Schedule and Homework:

Students should plan to read 1.5-2 chapters per week. Homework is assigned, but not collected. The homework consists of completing the in-chapter sample and follow up problems as well as the end-of-chapter blue practice problems. **We will be covering Chapters 1, 2, 3, 4, 6, 7, 8, 9, 10, 11 in the Silberberg text.** Chapters 1 and 2 are review chapters that students are responsible for knowing from preparatory chemistry.

Here are a few more tips about studying for this course.

1) **Read** each chapter carefully before coming to class. Not every detail will be covered in lecture, but you are still expected to understand the whole chapter.

2) As you read the chapter, attempt to do the in-chapter sample and follow up problems and the corresponding end-of-chapter practice problems. Exam questions will often be very similar to the problems mentioned above; therefore, make sure you can do all of these problems **comfortably** before an exam. Try to first do these problems without looking at the solutions. This is very important since you will not have a solutions manual/answers on an exam!! **Educational research tells us that it is just as important for your brain to see mistakes as it is for your brain to figure out the correct pathway. It also tells us that you must see the same information at least three times within 48 hours in order to retain that information.**

3) **DO NOT FALL BEHIND WITH THE READING OR HOMEWORK!!** This is the number one mistake you can make. Concepts in chemistry are like building blocks. Initially, you learn one topic to build up to larger concepts. If you are shaky on a topic early on, your whole foundation will be unstable. To avoid this, try to read ahead of the scheduled lecture topics and keep up with the homework.

4) In addition to completing the homework, it is also recommended that you discuss ideas and concepts with your peers in study groups and **come to office hours** to discuss ideas with me as well. There are usually several questions on the exam that will test your conceptual understanding and there will always **be at least one type of problem on the exam that you have never seen before to determine how well you can integrate ideas and concepts.**

Lecture Exams:

There are three lecture exams and one final exam. Material covered in lecture, in the assigned reading, homework, and activities will be on the exam. Make sure you can do **all** the assigned homework **without** struggling. Exam questions will always include questions that are similar to homework problems in addition to conceptual questions and **one or two questions that will challenge your understanding of the material (meaning you may have never seen this type of problem in the homework).**

Each lecture exam is worth 150 points. **Only your top three lecture exam scores will count as part of your overall course grade. No early, late, or make-up exams will be given**.

The final exam is **cumulative** and is worth 300 points. The final exam is **not** one of the exam scores that may be dropped out of your overall course score. **No early, late, or make-up final exams will be given.** If you feel that any of your exams are graded incorrectly, you are always welcome to turn the exam in for a **complete re-grade at the end of the lecture or laboratory period on the day the exam is passed back.**

Laboratory Notebooks:

You are required to maintain a bound laboratory notebook with duplicate copies. Each experimental procedure must be written in your lab notebook **prior** to performing the experiment. Although each lab procedure/prep is worth only 5 points, it must be completed prior to the beginning of the lab or you will not be allowed to perform the experiment. This will result in zero credit for both the lab procedure/prep and the corresponding lab report. Guidelines for maintaining your laboratory notebook and the grading of your procedures are provided in the following pages.

Only your top 10 laboratory notebook procedure scores will count toward your overall course grade.

Laboratory Lecture

Students are expected to attend **all** laboratory lectures and **all** laboratory sessions. You must complete **all** of the laboratory experiments, and you must also participate in the **entire** laboratory session in order to receive credit for both the laboratory notebook and the laboratory report. Most labs are broken up into at least two lab periods. You must participate in both lab periods to receive full credit for the report.

There are no make-up labs. If you are unexcused from a lab period or fail to perform any part of a laboratory experiment, you will receive zero credit for the corresponding lab report. It is also your responsibility to understand the theory and use of the chemicals and equipment for any laboratory period that you miss in order to be prepared for the laboratory exams and lab final. **If you have a medical emergency or some other emergency that prevents you from attending lab, you will be asked to supply written documentation in order for the absence to be excused. Be sure to contact the instructor as soon as possible if you miss a lab session.**

If you miss laboratory lecture or a laboratory period for any reason within the first two weeks of class, you will be dropped from the course. Two or more unexcused absences from lab sessions will result in an automatic grade of "F" for the entire course.

Laboratory Reports:

Guidelines for writing a full laboratory report will be provided later in the quarter. The full lab report is denoted with a * in the lab schedule; however, many of the lab reports are worksheets that will be turned in at the end of the lab period.

Only your top 10 lab report scores will count as part of your overall course grade. No make-up labs or late lab reports will be allowed or accepted.

Without exception all laboratory report conclusions must be typed (unless a worksheet is being used). Lab reports should be in your own words. Copying data, calculations, phrases or paragraphs from another student or the web is considered plagiarism.

Laboratory Exams

There is one laboratory exam for this course worth 75 points. The laboratory exam will be given during your regularly assigned laboratory sessions. **No early, late or make-up lab exams will be given and all lab exam scores will count toward your overall course grade.**

Tentative Laboratory and Exam Schedule

WEEK	WEEK	MONDAY	TUES	WEDNESDAY	THURSDAY
7/1	1	CHECK-IN	MEASUREMENT	NOMENCLATURE	**INDEPENDEN DAY**
7/8	2	HYDRATE	HYDRATE	PRECIPITATION	PRECIPITATIO EXAM I
7/15	3	PRECIPITATION*	TYPE OF REACTIONS	TYPE OF REACTIONS	CONDUCTIVIT (Vernier)
7/22	4	CONDUCTIVITY	ACID BASE TITRATION	ACID BASE TITRATION	CALORIMETR (Vernier) EXAM II
7/29	5	CALORIMETRY	REDOX TITRATION	REDOX TITRATION	LINE SPECTRA LAB FINAL
8/5	6	MMOLECULAR MODEL EXAM III	MOLECULAR MODEL	CHECK-OUT	FINAL

Guidelines Used for Maintaining a Lab Notebook

The following outline indicates the minimum amount of information that should appear in your notebook. On occasion it may be necessary to include additional information in the notebook.

* Indicates the material that must be completed **before** the start of each new experiment. The instructor will check this at the beginning of each new experiment.
** Indicates the material that must be collected/completed **during** the lab session.

For Each Laboratory Experiment:

*Title and Date:

Each experiment should begin with the title of the experiment and the date it is performed.

*Abstract:

Each experiment should also contain a brief summary that describes the main purpose of the experiment. **YOU WILL BE GRADED ON GRAMMAR**. Please have another person read your abstract. A short description of the experimental techniques used and any pertinent **mathematical and chemical equations** should be included here. Think about these questions when writing an abstract:

1. What is being determined in the experiment?
2. How will it be determined? What is the experimental technique?
3. Did I use enough detail? (Chemical names, concentrations, etc.)
4. Did I use the passive voice?

*Experimental Procedure:

The procedure is a detailed description of how the data is to be obtained. Use a two columned format. In the left hand column you should include a step-by-step procedure that is outlined in the laboratory manual; however, **do not** copy straight from the manual. The procedure should be in your own words so that you have a complete understanding of how the experiment will be performed. **A complete stranger should be able to pick up your notebook and follow the procedure.** The right hand column should be used for recording observations as well as any deviations form the planned procedure (see below)

**Observations:

Observations are just as important as measurements. You should note any color changes, bubbles, instrumentation problems, etc. in the right hand column next to the procedural steps.

**Data and Calculations:

Data should be listed in a table or tables. The data tables in your notebook are a good guideline for the types of data tables that should be listed in your report. All data should be clearly labeled and should include the proper units of measurement. You may also be required to graph your results. The graph should be done using Microsoft Excell and should have all axes labeled with the proper units. Print out of any graphs should be included with the report

Calculations should be organized in a logical fashion and they should be clearly labeled. For each type of specific calculation you must show at least one sample calculation using your data. Make sure that appropriate units are also included in the calculations. For any "repeat" calculations you should list the results also in a table.

**Conclusion:

When asked a brief conclusion should be provided. Your instructor will let you know when this is necessary.

Student Learning Outcome(s):

*Identify and explain trends in the periodic table.
*Construct balanced reaction equations and illustrate principles of stoichiometry.
*Apply the first law of thermodynamics to chemical reactions.