

Preparation for General Chemistry, CHEM 50, Summer 2015

Instructor

Dr. Ram Subramaniam

SC 1222

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Lecture

Monday to Thursday: 10:00 a.m. to 11:50 a.m. S 32

Lab

Section 1: Monday to Thursday 12:00 to 1:15 p.m. SC 2210

Section 2: Monday to Thursday 1:30 to 2:45 p.m. SC 2210

Textbook

Introductory Chemistry: Concepts and Critical Thinking, Charles H. Corwin, Sixth Edition, Prentice Hall ISBN-13: 978-0-321-66305-4 ISBN-10: 0-321-66305-5

Other Supplies

Lecture notebook, laboratory notebook, goggles, and scientific calculator

Course Description

This class is meant as a preparation for the General Chemistry classes (CHEM 1 series) and is also a pre-requisite for some Biology classes. No previous chemistry knowledge is required for this class. There are two components to this class- a lecture and a laboratory. In the lecture, we will begin by learning about the atom and finish by learning about acids and bases. In between, we will cover many interesting topics in chemistry such as: periodic table, mole, chemical compounds and chemical reactions, what do molecules look like in 3D, how do gases and liquids behave. In the laboratory we will learn to make various measurements, examine some simple chemical reactions, and learn various common laboratory techniques.

Academic Integrity

Please refer to the De Anza College Student Handbook:

<http://www.deanza.edu/studenthandbook/academic-integrity.html>

To summarize the policies provided in the handbook- 1) no cheating will be tolerated 2) consultation of any form must be authorized by the instructor 3) cheating will be reported to appropriate officials 4) cheating will result in an automatic "F" in the class.

Class Policies

Daily lessons: The entire coursework is divided into 11 lessons. The key questions from each lesson are posted on the website. You are required to find answers to the questions in each lesson before coming to class. You will not be allowed to be present in class if you have not completed that days lesson and this will result in loss of credit.

Daily Homework: Homework assignments will be posted on the class website. You are required to complete the assignment and turn it in at the beginning of the next class period. Homework assignments will be graded for completion. Late homework will not be accepted.

Mid-term Exams: There will be four mid-term exams during the quarter. The mid-term exams will be held during the first hour of the lecture. You will have 1-hour for the exams. The exams will contain numerical problems and short answer questions.

Attendance Policy

You are expected to attend all lecture and laboratory classes. Strong evidences exist that indicate that the success of a student is directly related to her/his class attendance. You will be given an "F" grade for unexcused absences in THREE or more lectures and/or TWO or more lab periods. If you have an unexcused absence during the first week of the quarter, you will be dropped from the class.

Excused Absence: If you know in advance that you will need to miss a class, please notify the instructor and provide proof of the excuse. If you have already missed a class, please follow up with the instructor as soon as possible and provide a proof of a valid excuse. Valid excuses are: birth/death in the family, work-related travel, illness/medical emergencies, conference travels, jury duty, accidents, legal issues, or traveling to represent De Anza College at meetings/other events. Other excuses will be considered on a case-by-case basis. Please note that verifiable documented proof of the excuse is essential in order to grant a make-up.

Grading

Lecture

Homework	20 × 5	100
Midterm	4 × 100	400
Lessons	10 × 10	100
Final	1 × 200	200
Total		800

Lab

Experiments	5 × 20	100
Exam	1 × 100	100
Total		200

Grading Scale

In order to obtain the final letter grade for the class, your total lecture score will be added to your lab score and a percentage score will be computed based on the total. This percentage score will be rounded to the nearest whole number and a letter grade will be assigned as per the following table. Grades will not be based on a curve. Please note that regardless of your overall score, if you do not complete all the lab assignments you will receive an F grade in the class.

> 97	A+
94 to 97	A
90 to 93	A-
87 to 89	B+
84 to 86	B
80 to 83	B-
77 to 79	C+
73 to 76	C
< 72	< C

Date	Lecture Topic	Lesson Due	HW Due	Exam	Lab
6-29	The Metric System				Check In
6-30	The Metric System				HW 1
7-1	Atomic Structure	Lesson 1			HW 2
7-2	Atomic Structure				HW 2
7-6	Periodic Table	Lesson 2		Exam 1: Lessons 0, 1	Measurements (Handout)
7-7	Periodic Table	Lesson 3	HW 3		Measurements (Handout)
7-8					
7-9					
7-13	Nomenclature	Lesson 4	HW 4	Exam 2: Lessons 0 to 3	Nomenclature (Handout)
7-14	Nomenclature		HW 5		Nomenclature (Handout)
7-15	Reactions	Lesson 5	HW 6		Alum (Expt 13 Lab Manual)
7-16	Reactions		HW 7		Alum (Expt 13 Lab Manual)
7-20	Mole	Lesson 6	HW 8	Exam 3: Lessons 0 to 5	Baking Soda (Expt 14 Lab Manual)
7-21	Mole		HW 9		Baking Soda (Expt 14 Lab Manual)
7-22	Stoichiometry	Lesson 7	HW 10		Baking Soda (Expt 14 Lab Manual)
7-23	Stoichiometry		HW 11, 12		Baking Soda (Expt 14 Lab Manual)
7-27	Bonding		HW 13	Exam 4: Lessons 0 to 7	Vinegar (Handout)
7-28	Lewis Structure	Lesson 8	HW 14		Vinegar (Handout)
7-29	Gas Laws	Lesson 9	HW 15		Vinegar (Handout)
7-30	Liquids	Lesson 10	HW 16		Vinegar (Handout)
8-3	Liquids		HW 17		Review
8-4	Acids & Bases		HW 18		Lab Exam
8-5	Acids & Bases		HW 19		Check Out
8-6	Final Comprehensive Examination: 10:00 a.m. to 11:50 a.m. S 32				

Lab

Safe lab practices are of utmost importance. Please read the section in your laboratory on safety issues carefully. The following rules are applicable while in the lab:

- You may not be in the laboratory unless an instructor is present
- Notify the instructor immediately in cases of illnesses while in the lab
- Eating and drinking are strictly prohibited inside the lab
- Open-toed shoes and shorts are not permitted inside the lab
- Personal headphones may not be used while in the lab
- Dispose off waste material and broken glassware as per instructions from your instructor
- Safety goggles must be worn at all times

Lab Notebook & Pre-Lab

Required Goggles:

<http://books.deanza.edu/MerchDetail.aspx?MerchID=1341936&num=4&start=1&end=12&type=1&CategoryName=GENERAL%20MDSE&CatID=5322&Name=GENERAL%20MDSE&Catalog=966>

Required Notebook:

http://www.amazon.com/Student-Lab-Notebook-Spiral-duplicate/dp/1930882742/ref=sr_1_3?ie=UTF8&qid=1435345737&sr=8-3&keywords=lab+notebook

Pre-lab

- 1) Write down the objective of the experiment.
- 2) Write down the outline of the procedure.
- 3) Write down blank data tables.

Loss of Lab Credit

The following will result in ZERO credit for a particular experiment.

1. Improper lab attire (no shoes or no long pants/skirts or tank-tops)
2. Lack of lab preparation
3. Being late by more than 10 minutes
4. Absences that do not have a documented excuse

POLICY CHANGES

All the information contained in this document is subject to change at the discretion of the instructor.