

TONG  
De Anza College  
**Winter, 2019**  
Chem 25  
Introductory Chemistry  
5 units--12 weeks

Books & Text: Bauer et al, "Introduction to Chemistry," 5th ed, McGraw/Hill (2018)

Materials

Lab: De Anza College - Chemistry Laboratory Manual, McGraw Create, 2018  
Scientific Calculator & Safety Goggles (available in the Bookstore).  
Chem 25 **PRIMER** by Instructor TONG ( strongly recommended): Contains

notes discussed in lecture, copies of information used as overhead

projections in class discussions, exercises & copies of past Exams.  
Available in Bookstore.

Prerequisite:

Satisfactory grade in Intro. Algebra and at least concurrent enrollment in  
Intermediate Algebra , (Math 105), and competency in English.  
Similar in contents to high school Honors Chemistry, but done in 3 months.

Grading:

**Lecture** 75% Specifically  
No.      of Points

1 Test 100 pt + Assign + work-done-in-class 150 pt  
( 3 one-hr) Lecture Exams each 200 pt  
One of 3 1-hr exams dropped, therefore 2 of 3 200 pt = 400 pt  
one Final Exam scheduled one of 200 pt  
750 pts total

**Lab** 25%

Lab Tests 1 x 70 and 1 x 100 = 170 pts  
8 x Lab Write-ups, including attendance & doing the lab work 80

Grade Based

88+% A

250 pts total

on 100% 78+ % B **Lecture 750 + Lab 250 = TOTAL pts = 1000 pts**  
60+% C (+ or - grade system is used) or **100%**  
50+% D

Student progress will be primarily evaluated by Tests & Exams.

There will be no make-ups for missed worksheets, assignments or quizzes.

The **first** missed lecture exam is automatically dropped, regardless of excuse.

Other missed Exams (very unlikely) can be given only if (a) after the student  
has already missed one exam, then (b) for this 2nd exam, with emergency &  
official excuse as proof, it may be taken, but can be subjected to 15% to 20%  
reduction in grade, depending on the circumstances.

Framework: The course prepares the student to take college chemistry **or** to fulfill  
other

Science requirements, so students can move on after acquiring some knowledge  
of fundamental chemistry concepts, including bonding & stoichiometry, and some  
basic lab skills, on completion of the course. **Safety goggles** must be worn in the  
lab. Students who have checked into the lab must check out, otherwise all the  
De Anza Grades will be withheld and not transferable to other colleges.

The Honor Code says cheating is **not cool** (unfair to other students) & students who  
cheat show no respect for other students, do not play a fair game and are subject to  
penalties anywhere from zero for the exam, class dismissal or expulsion from De Anza.

**Lab Work:** **Safety goggles** must be worn during lab work. The lab must be kept clean.  
& **Safety.**

Examples: Any spilled chemicals must be cleaned up immediately, either in the lab itself or in the Balance Room. Otherwise grade reduction will result.

**Waste Handling:** All waste chemicals must be disposed of in the waste bottles in the hood, marked with the instructor's name and chem class. Only one rinse (a very small volume of water, 10% to 15% of the volume of the container) is needed to remove any residual waste and also disposed of into the waste container. **All second or third rinses go down the sink.**

A student WILL NOT be allowed to stay in the lab if he/she **does not wear** safety goggles and proper attire while working on experiments in the lab.

**All pre-labs must be done before** a student shows up for the lab, and all students (this means each and every single one of you) are to **participate** in lab discussions, including explaining what the pre-lab is all about and concepts/ terminology introduced.

**All missed lab work (i.e. not doing lab) will be graded as a zero, and unauthorized groups (like 3 students) will have reduction in grade.**

**Goal** Students will be introduced to the Periodic Table, basic math skills in unit analysis and mole concept calculations, gases, solutions and chemical bonding.

In the lab, the basic lab skills like weighing, volume reading, use of Bunsen burner/heating skills and titration skills are introduced

Attendance: Each student is expected to be in attendance at all scheduled meetings of the class (Lecture and lab) (There are points given). **It is the student's responsibility** to follow up on any missed assignments, handouts, lecture discussions, test schedule changes. Students who miss accumulatively one week of classes (unexcused) will be dropped, and attendance is a factor for students' progress and points in the grading process in the course.

Office Hours: In the open Faculty Office Area, 2nd Floor in Chem Bldg. M at 4:30 PM, Wed at 8:30 AM, & W at 3:30 PM I am also available for 1-hour per week pre-arranged appointment.

(The Faculty Office Area is on the same floor level across from lab wing, my phone number is 408-314-8437, my email is [tonghomer@fhda.edu](mailto:tonghomer@fhda.edu))

Study Habits & **Preview the lecture and lab materials before** coming to class. Continual Commitment: study rather than cramming reflects good study habits & effective learning. Students should devote **at least** 2 hours of study for every lecture hour, and at least 1 hour of study for every lab hour.

This means that **for every week,**

4-hour lecture x 2 = 8 hours

1 3-hour labs x 1 = 3 hours

11 hours/wk or about **2 hours/day**

No one who has average IQ and can walk and chew gum at the same time has ever failed the Chem 25 course if they followed the above Carnegie Commission on Higher Education's Recommendations, spend **quality time** & be engaged (including writing notes) in the course.

**Student Learning Outcome(s):**

- \*Assess the fundamental concepts of modern atomic and molecular theory.
- \*Evaluate the standard classes of chemical reactions.
- \*Demonstrate a fundamental understanding of mathematical concepts pertaining to chemical experimentation and calculations.