

Chemistry 101 – General Chemistry

Lecture MW 5:20 pm - 6:45 pm Room NEA-226

Lab MW 2:00 pm – 5:10 pm Room PH-102 (3376)

Lab MW 6:55 pm – 10:05 pm Room PH-102 (3379)

Instructor: Dr. Arias

Phone: (310) 233-4493

Office: NEA-277

E-mail: arias@chem.ucla.edu

Office Hours: MW 12:20 pm - 2:00 pm

Lab Instructors:

2:00 -5:10 pm (Arias)

6:55 – 10:05 pm (TBA)

Textbooks and Supplies:

Tro, “Chemistry,” Pearson/Prentice Hall.

LA Harbor Laboratory Manual

Laboratory Notebook (with duplicate sheets)

Laboratory safety glasses/goggles

Scientific Calculator (non-programable)

USB Flash Drive (optional)

Prerequisites: Satisfactory completion (C or better) of Chemistry 065 or the equivalent and Math 123C. Eligibility for English 101 or concurrent enrollment in English 28.**Course Description:** This course is a 5 unit course transferable to both the UC and CSU systems. The topics covered will include the following: physical measurements, atomic theory, stoichiometry, chemical reactions, quantitative analysis, gas laws, thermochemistry, quantum theory, electron configuration, chemical periodicity, molecular bonding, VSEPR theory, valence bond theory, molecular orbital theory, states of matter, and solutions.

Grading:	Homework	50 points	Scale:	A	90 – 100%
	Laboratory	200 points		B	80 – 89%
	Quizzes	50 points		C	70 – 79%
	Exams	300 points		D	60 – 69%
	<u>Final</u>	<u>200 points</u>		F	0 – 59%
	Total	800 points			

Homework: 10 homework assignments will be collected during the semester. Each homework assignment is worth 5 points. Late homework will be accepted for half credit. Solutions to the homework may be posted after the due date for each assignment.**Quizzes:** There will be 7 quizzes during the semester. The lowest 2 scores will be dropped. No make up quizzes will be given.**Exams:** There will be 3 examinations given during the semester. Each exam will be worth 100 points. No make up exams will be given unless you have proof of a medical emergency.**Final:** The final examination is worth 200 points and is cumulative. You must take the final examination to receive credit for the class. December 16, 5:30 – 7:30 pm.

Course Content:

Chapter 2. Atoms and Elements.
Chapter 3. Molecules, Compounds, and Chemical Equations.
Chapter 4. Chemical Quantities and Aqueous Reactions.
Chapter 5. Gases.
Chapter 6. Thermodynamics.
Chapter 7. Quantum Mechanics.
Chapter 8. Electron Configuration.
Chapter 9. Chemical Bonding – Lewis Theory.
Chapter 10. Valence Bond and Molecular Orbital Theory.
Chapter 11. Liquid, Solids, and Intermolecular Forces.
Chapter 12. Solutions.

Academic Dishonesty: Cheating and or plagiarism will result in an F for the assignment and may result in an F grade for the course. The dishonest student may then be reported to the administration for further disciplinary action. All forms of communication with others are considered cheating during an exam. Cell phones, text messengers, and programmable calculators may not be used during an exam.

Attendance Policy: It is the responsibility of the student to attend lectures and labs. Failure to attend lecture may result in zeros on homework, quizzes, and exams due on those days. Failure to report to lab may result in no credit for the course. Attendance is worth 5 points per day for each lab session. Showing up late or leaving before the experiment is complete will result in a loss of points.

Laboratory: In order to pass the class, you must complete all laboratory assignments with a satisfactory score. Failure to pass the laboratory with a C or better will result in an F for the class. Bring safety glasses/ goggles and closed toed shoes to every lab section.

Bring a laboratory notebook (with duplicate pages) to each lab session. Leave the first few pages for a table of contents. The table should include the title of the experiment and the page number of the experiment. The lab notebook will include all pre-lab and raw data. One copy of the pre-lab assignment will be turned in to the lab instructor at the end of lab for each new experiment. A copy of the raw data will also be collected at the conclusion of each experiment.

Pre-lab: The pre-lab assignment should be completed before each new lab. The pre-lab should contain your name, date, title of the experiment, experiment objective, and flow-chart. The pre-lab will be signed at the beginning of each new lab.

Lab Data: At the conclusion of each lab period, the instructor will sign the raw data collected that day. Unsigned data will not receive credit. Data should include the title of the experiment and the date. The proper units for all measurements should also be included.

Lab Reports – Laboratory reports will be typed using a word processor (Word). All graphs must be done with an appropriate graphing program (Excel).