

Introduction to General, Organic and Biochemistry I Spring 2020 (CHEM-030A-01 & 02) Syllabus

Lecture (Sections 01 & 02): Monday & Wednesday -2:30 PM - 4:20 PM Online

Lab (Section-01): Monday- 11:30 AM - 12:30 PM - Online

Lab (Section-02): Wednesday- 11:30 AM - 12:30 PM - Online

Instructor: Dr. Hema Ramakrishna

email: ramakrishnahema@fhda.edu

Office Hours: Monday & Wednesday- 10:20 AM -11:20 AM Online

Description: An introduction General Chemistry course for Allied Health Fields with Laboratory. The topics covered in this course includes discussion of various measurement tools, energy and matter, discovery of an atom, introduction to elements, compounds, and types of bonding in compounds followed by various types of chemical reactions and stoichiometric calculations based on chemical equations. Properties of gases and solutions will be discussed. The course concludes with a discussion of acid-base chemistry and nuclear chemistry.

Lecture text: General, Organic and Biological Chemistry, Janice G. Smith, 4th Edn. McGraw-Hill.

Lab Experiments: The lab experiments are located at this link:

<https://www.deanza.edu/chemistry/Chem30A.html>.

A scientific calculator that has at least log and exponential functions is required. NO GRAPHING CALCULATORS.

Evaluation: Your grade will be based on your performance in the following:

Quizzes: Nine quizzes will be posted on Monday or Wednesday as scheduled in the syllabus, and will have a time limit. **If you miss the quiz, you will not have a chance to make it up.** The nine quiz scores will be used in determining your final grade. Each quiz counts for 10 points.

Exams: There will be two midterm exams and one final exam. The two midterm exam scores will be used in determining your final grade. Each exam counts for 100 points. **No early, late or make-up exams will be given.**

Lab assignments: All 7 labs count towards your grade. **No make-up lab meetings.** Instructions to complete the experiments, calculations, analyze the results and submit the lab assignments will be given during the regular Lab meetings.

Homework: Homework problems will be assigned and instructions to complete these assignments are provided on the Canvas site. The problems in these assignments are **not** necessarily an indicator of the types of problems that will be found on quizzes or exams.

Lab final Exam: There is one lab exam worth 70 points. The lab final exam will be given during your regularly assigned laboratory sessions. **No early, late or make-up lab exams will be given and lab final exam score will count toward your overall course grade.**

Final Exam: A comprehensive lecture final exam will be given. Students who miss or fail the final exam will not receive a grade C or better. **No early, late or make-up Final exams will be given.**

Homework assignments	100 points
9 Quizzes (10 pts each)	90 points
7 Lab assignments	140 points
1 Lab Final exam	70 points
2 Exams (100 pts each)	200 points
1 Lecture Final exam (200 pts)	200 points
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Total	800 points

Letter grades will be assigned according to the following grade scale:

90-100% = A
87-89.9% = A-
84-86.9% = B+
79-83.9% = B
76 -78.9% = B-
72-75.9% = C+
60-71.9% = C
50-59.9% = D
Below 50% = F

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

Attendance: Your attendance is urged for all lectures and required for all quizzes, exams and labs. **Exams, quizzes, homework assignments and lab assignments which are not submitted in the assigned time will score zero.** It is the responsibility of the student to contact the instructor regarding missed work. If an absence is anticipated, the student should make arrangements to complete the missed assignments prior to the absence. 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.

Academic integrity: Academic dishonesty is a serious offense. Students are also expected to abide by the Academic Integrity policy of De Anza college. Details can be found at, <http://www.deanza.edu/studenthandbook/academic-integrity.html>. Copying another student's data, paper, exam, quiz or use of technology devices to exchange information during class time and/or testing is never tolerated and results in **dismissal** from the course with **Grade F**.

Changes to Syllabus: This syllabus may change according to the needs of the class. Please check with the syllabus posted.

Tentative Laboratory, Lecture, and Exam Schedule

Date Monday	Lecture(Online) Lab-Section-01(Online)	Date Wednesday	Lecture(Online) Lab-Section-02(Online)
13 Apr	Lecture :Introduction Ch.1: Matter and Measurement Section-01-Lab: Introduction	15 Apr	Lecture: Ch.2: Atoms and Periodic Table Section-02-Lab: Introduction
20 Apr	Lecture :Ch.2: cont. Quiz 1: Ch. 1 Section 01-Lab 1: Measurements	22 Apr	Lecture:Ch.3: Ionic Compounds, Section-02 -Lab 1: Measurements
27 Apr	Lecture: Ch.3. Cont.Ch. 4: Covalent Compounds Quiz-2: Ch.2 Section 01-Lab 2: Nomenclature	29 Apr	Lecture :Ch:4 cont, Quiz 3: Ch.3, Section 02-Lab 2: Nomenclature
04 May	Lecture: Review for Exam-1(Ch.1-4) Quiz-4: Ch.4; Section 01-Lab 3: Models	06 May	Lecture: Exam-1(Ch.1-4) Section 02-Lab 3: Models
11 May	Lecture :Ch:5: Chemical Reactions Section 01-Lab-4: Hydrates	13 May	Lecture:Ch.5: cont,.. Ch:6: Energy Changes, Reaction Rates, and Equilibrium Section 02-Lab-4: Hydrates
18 May	Lecture: Ch: 6: cont. Quiz 5: Ch. 5 Ch:7 Gases, Liquids and Gases Section 01-Lab-5: Molar Volume	20 May	Lecture:Ch.7: cont. Quiz-6: Ch.6 Section 02-Lab-5: Molar Volume
25 May	Memorial day, No classes	27 May	Lecture: Ch:8:Solutions Section 02-Lab-6: Conductivity (Vernier)
01 Jun	Lecture:Ch:8. Contd,Review for Exam-2 (Ch.5-7) Quiz-7: Ch.7 Section 01-Lab-6: Conductivity (Vernier)	03 Jun	Lecture: Exam-2 (Ch.5-7) Section 02-Lab-7: Acid-Base Titration (Part-1)
08 Jun	Lecture:Ch:9:Acids and Bases, Section 01-Lab-7: Acid-Base Titration (Part 1&2)	10 Jun	Lecture: Ch:9:contd.. Quiz-8: Ch. 8 Section 02-Lab-7:Acid-Base Titration(Part-2)
15 Jun	Lecture: Ch.10: Nuclear Chemistry Quiz-9: Ch. 9 Section 01-Lab-Lab Final Exam	17 Jun	Lecture: Review for Final exam(Ch-1-10) Section 02-Lab- Lab Final Exam
22 Jun		24 Jun	Comprehensive Lecture Final Exam

Lecture Final Exam on June 24 Wednesday

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.