Introduction to General, Organic and Biochemistry II

Chemistry 30B, Spring 2019

Instructor Contact Information

Dr. Cinzia Muzzi
Office: SC 1224
De Anza College, Cupertino, CA
Email: muzzicinzia@fhda.edu
Website: http://deanza.edu/faculty/muzzicinzia/
Phone: 408-864-5790
Office Hours: T 10:30 AM –11:20 AM and Th 11:30 AM –2:30 PM, SC1224

Class Meeting

Lecture time: TTh 8:30AM to 10:20 AM, G10
Lab lecture & Lab time: Tuesdays, 11:30 AM to 2:20 PM, SC 2210

Textbook and Materials

Lecture- General, Organic and Biological Chemistry, Janice G. Smith, 4th ed, McGraw-Hill.
Lab- Laboratory Manual for Introduction to General, Organic and Biochemistry, Neely, Applegate and Sakuta, 1st ed, 2016, McGraw Hill.
-Latex or nitrile gloves
-ANSI certified safety goggles purchased from the De Anza College Bookstore (no other goggle may be substituted)

Course Content

In this class we will discuss fundamental topics in General, Organic, and Biochemistry. These courses are designed to prepare a student for a career in a health-related field. We will begin with a discussion of fundamental topics in organic chemistry and study the nomenclature, structure, and simple reactions of hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids, and esters. Following this we will introduce some topics in biochemistry including: carbohydrates, lipids and fats, amino acids and proteins, and nucleic acids.

Academic Integrity

All graded assignments must be completed without any consultation (people, books, internet) unless otherwise permitted by the instructor. Any student that violates this policy will be reported to appropriate administrative authorities such as the Dean.

Attendance Policy

Failure to attend any of the lectures or laboratory classes during the first two weeks will result in you being dropped from the class. You are expected to attend all lecture and laboratory classes. Strong evidence exists indicating that the success of a student is directly related to her/his class attendance. Plus you are allotted participation points! **You will be**

given an "F" grade for unexcused absences in TWO or more lecture and/or laboratory periods.
If you choose to drop/withdraw from the course **at any point** during the quarter, it is **<u>your</u>** 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/withdraw. 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.

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 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. Please note that verifiable documented proof of the excuse is essential in order to grant an excused absence. Also note that almost each evaluation category has one or more low scores dropped; therefore, **THERE ARE NO MAKE UP QUIZZES, EXAMS, OR LAB REPORTS** even for an excused absence.

Cell Phone Policy
Use of cell phones is strictly prohibited during lab. There is to be no text messaging, browsing the Internet, or voice conversations. Violation of this policy may result in failure in the class.

Evaluation
The lecture portion of the class is weighted at 80% and the laboratory portion is 20%. There will be 6 quizzes, 3 exams, class participation points and a final exam in the lecture. There are a total of nine laboratory experiments. You must complete all the lab experiments in order to pass the class. The evaluation for the laboratory part will consist of lab reports and a lab exam. Please note that almost each evaluation category has one or more low scores dropped; therefore, **THERE ARE NO MAKE UP QUIZZES, EXAMS, OR LAB REPORTS.**

Grading

Lecture: 700 points	
3 Exams (lowest score dropped)	2 × 150 = 300 points
7 Quizzes (lowest score dropped)	6 × 25 = 150 points
Final Exam	1 × 250 = 250 points

Lab: 200 points	
9 Lab reports (lowest score dropped)	8 × 15 = 120 points
Lab exam	1 × 80 = 80 points

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 will be computed based on the total. This percentage 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.

Percentage points	*Grade*
96-100	A+
91-95	A
88-90	A-
85-87	B+
81-84	B
78-80	B-
73-77	C+
70-72	C
66-69	D+
63-65	D-
0-59	F

Other Options
Pass/No Pass: A grade of "C" or higher is considered "Pass" in the course and "D+" and lower is considered "No Pass" in the course.

Note: You are not permitted to attend this class if you are not officially registered.

Lecture and Lab Schedule
The following is a tentative schedule for the class. It is highly recommended that you read the relevant sections in the book prior to the lecture. Periodically, the instructor may assign certain sections of the book to be read on your own and these will not be covered in the lecture. You will receive appropriate instruction for such readings during the lecture. Some portion of the laboratory periods may also be used for additional lectures.

Pre-lab Quiz: These quizzes will be worth five of the 10 points for the lab reports. The quizzes could cover some or all of the questions in the pre-lab section of the lab manual for each experiment or they could be questions about the procedure itself. It is important that you read the entire experiment **before** coming to lab.

Lab Report: All observations must be entered in your lab manual. All the questions pertaining to each experiment must be completed and turned in at the **end** of the lab period.

Tentative Lecture/Lab Schedule

Class Period	Topics	Sections	Lab (Tuesdays)
Week 1	Intro/ Functional Groups/Alkanes	Chapter 11/12	Intro and Check-in
Week 2	Alkanes/ Unsaturated Hydrocarbons/ Quiz 1 (Chap. 11)	Chapters 12/13	Alkanes
Week 3	Organic Compounds That Contain Oxygen, Halogen or Sulfur Quiz 2 (Chap.12, 13)	Chapter 14	Hydrocarbons
Week 4	Three Dimensional Shape/**Exam 1 (Chap 11-14)**	Chapter 15	Alcohols
Week 5	Aldehydes and Ketones Quiz 3 (Chap 15)	Chapter 16	Aldehydes and Ketones
Week 6	Carboxylic Acids/Quiz 4 (Chap. 16) Esters and Amides	Chapter 17	Carbox. Acids and Esters
Week 7	Amines Quiz 5 (Chap 17)	Chapter 17/18	Acetomenaphin
Week 8	Lipids/**Exam 2 (Chap 15-18)**	Chapter 19	Amines and Amides
Week 9	Carbohydrates Quiz 6 (Chap. 19)	Chapter 20	Carbohydrate tests
Week 10	Amino acids, Proteins Nucleic acids Quiz 7 (Chap. 20)	Chapter 21/22	Peptides and Proteins
Week 11	Metabolism/Protein Metab **Exam 3 (Chap 19-22)**	Chapter 23/24	Lab Exam/Chk. Out

Final Exam: Thursday from 7:00 AM to 9:00 AM

From the American Chemical Society Safety In Academic Laboratories Guidelines, 7th Ed., the following mandatory minimum safety requirements must be followed by all students and be rigorously enforced by all Chemistry faculty:

1) Chemistry Department-approved safety goggles purchased from the De Anza College bookstore (NOT safety glasses) must be worn at all times once laboratory work begins, including when obtaining equipment from the stockroom or removing equipment from student drawers, and may not be removed until all laboratory work has ended and all glassware has been returned to student drawers.
2) Shoes that completely enclose the foot are to be worn at all times; NO sandals, open-toed, or open-topped shoes, or slippers, even with socks on, are to be worn in the lab
3) Shorts, cut-offs, skirts or pants exposing skin above the ankle, and sleeveless tops may not be worn in the lab: ankle-length clothing must be worn at all times
4) Hair reaching the top of the shoulders must be tied back securely
5) Loose clothing must be constrained
6) Wearing "...jewelry such as rings, bracelets, and wristwatches in the laboratory..." should be discouraged to prevent "...chemical seepage in between the jewelry and skin...".
7) Eating, drinking, or applying cosmetics in the laboratory is forbidden at ALL times, including during lab lecture
8) Use of electronic devices requiring headphones in the laboratory is prohibited at ALL times, including during lab lecture
9) Students are advised to inform their instructor about any pre-existing medical conditions, such as pregnancy, epilepsy, or diabetes, that they have that might affect their performance.
10) Students are required to know the locations of the eyewash stations, emergency shower, and all exits
11) Students may not be in the lab without an instructor being present
12) Students not enrolled in the laboratory class may not be in the lab at any time after the first lab period of each quarter.
13) Except for soapy or clear rinse water from washing glassware, NO CHEMICALS MAY BE POURED INTO THE SINKS; all remaining chemicals from an experiment must be poured into the waste bottle provided.
14) Students are required to follow the De Anza College Code of Conduct at all times while in lab: “horseplay”, yelling, offensive language, or any behavior that could startle or frighten another student is not allowed during lab;
15) Strongly recommended: Wear Nitrile gloves while performing lab work; wear a chemically resistant lab coat or lab apron; wear shoes made of leather or polymeric leather substitute.

By signing below, I, _____,
First Name Family Name
acknowledge that I fully understand and agree to abide by the laboratory safety rules listed above. Further, I acknowledge that my failure to abide by these rules will result in my being dropped from this chemistry class immediately.

_____ _____ Signature
Date