

Introduction to General, Organic and Biochemistry I: Online

{Always Be Kind}

For there is always light. If only we're brave enough to
see it. If only we're brave enough to be it.

—Amanda Gorman

- *525,600 minutes* -

Chem. 30A:03Z, 04Z Fall 2021 - Syllabus

Lecture 03Z, 04Z: T,R 5:30 PM – 7:20 PM (Sync) – Zoom Link: <https://fhda-edu.zoom.us/j/93471124351>

Room Code: 934 7112 4351, PASSCODE: ILOVECHEM

Lab 03Z-T: 7:30-8:20 PM (Sync)—Zoom Link: <https://fhda-edu.zoom.us/j/98876081966>

Room Code: 988 7608 1966, PASSCODE: FLASK

Lab 04Z-R 7:30-8:20 PM (Sync)—Zoom Link: <https://fhda-edu.zoom.us/j/93973867720>

Room Code: 939 7386 7720, PASSCODE: BEAKER

Office Hours T,R: 4:00-5:00 pm—Zoom Link: <https://fhda-edu.zoom.us/j/93560175369>

Room Code: 935 6017 5369, PASSCODE: RADIUM

Instructor: Dr. James Maxwell, phone: (773) 454-7779 (texts also), email: maxwelljames@fhda.edu, email best way to contact, rapid response.

Description: An introduction General Chemistry for Allied Health Fields with Laboratory.

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

10 best Quizzes out of 11 quizzes (10 pts each)	110 points
2 pre-labs	20
8 Labs (20 pts each)	160
1 Lab Final (100 pts)	100
3 Exams (100 pts each)	300
1 Final (200 pts)	200
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Total	880 points

Letter grades will be assigned according to the *approximate* scale:

A	90%
B	80%
C	70%
D	50%
F	< 50%

Attendance: When a class is listed as Synchronous, your attendance is expected. **You must be present each day for the first two weeks of class or you will be dropped. Attendance will be taken.**

Quizzes: Quizzes will be given as scheduled in syllabus, and will have a time limit. Answer keys will be available after the quiz. *If you miss the quiz, you will **not** have a chance to make it up after the KEY is posted in Canvas.* The best 10 quiz scores will be used in determining your final grade.

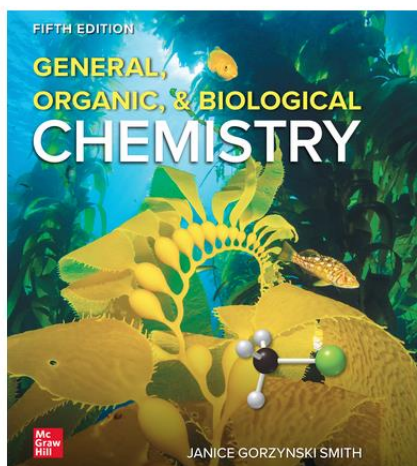
Exams: There will be three exams and one final exam. You must bring your own calculator (if you need one), pencil and eraser for exams. Cell phones may not be used at any time during the exam. **Calculators** may be used if

approved by instructor. **No Mobile Phones during Exam! Answer Keys will be available after the exam in Canvas. Please be on your honor. NO CHEATING**

Lecture Text: **REQUIRED** Janice G. Smith, **General, Organic and Biological Chemistry**, **5th ed.**, 2018, McGraw-Hill. You can acquire a digital text for \$30 from the McGraw-Hill using the link below:

Here is reference link for purchasing the \$30 ebook (Smith, **5th Ed** Chem 30A-ISBN: 9781307601619-\$30)

<https://www.mheducation.com/highered/custom/product/9781307713107.html>



Lab Experiments: Three Lab Quizzes plus five Science Interactive Lab Kit Experiments (**REQUIRED**), **free** from **DeAnza bookstore** on for experiments performed at home. Please order on **Oct 4th**. Delivery in about 1 week.

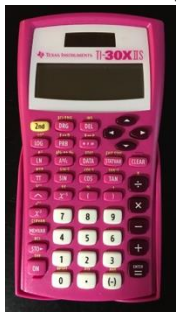
Use this link to create a Science Interactive account at:

<https://myhol.holscience.com/enroll/ktkc-mdct-hzzv-tczx>

When you receive your kit from the bookstore, please perform a complete inventory and be sure nothing is missing or broken. If you wait until you are going to perform an experiment and you find the thermometer is broken, there is little that can be done. You can create an account before you have the kit. Please do so ASAP and complete Getting Started and Laboratory Safety and submit the .pdf for each one to CANVAS Assignments. **After you finish the SI labs, save as a .pdf and submit to Canvas Assignments.** All 8 labs count towards your grade (Three Labs (Lab 1, 2 and 3) that are entered into ZipGrade and the Five labs from SI Kit that are entered into CANVAS assignments and the two intro labs (Getting Started and Laboratory Safety) entered into CANVAS assignments). Late labs will incur a penalty of 1 point per day late. You **MUST** wear eye protection during lab. You must complete Getting Started and Laboratory Safety before you can perform the first lab, **Limiting Reagents.** This link will show you what materials will be used for each experiment. Student supplied means you must supply the material yourself. Science Interactive Supplied means it come in the kit you receive from the bookstore.

Lab Reports: Lab reports will be filled out in the form provided by each HOL experiment, saved as a .pdf and submitted to Canvas Assignments in the proper place. **Lab Reports are DUE AFTER Lab is COMPLETE. See Calendar and Canvas Assignments for exact dates on which each experiment is due. Labs submitted after the due date will incur a penalty of 1 pt./day late**

Calculator: A scientific calculator, not our smart phone, will be necessary to complete quizzes and exams. You can purchase them for about \$20. My favorite is the TI-30XIIS shown here:



Academic Dishonesty: "Academic dishonesty is a serious offense, which includes but is not limited to the following: cheating, complicity, fabrication and falsification, forgery, and plagiarism. Cheating involves copying another student's paper, exam, quiz or use of technology devices to exchange information during class time and/or testing. It also involves the unauthorized use of notes, calculators, and other devices or study aids. In addition, it also includes the unauthorized collaboration on academic work of any sort. Complicity, on the other hand, involves the attempt to assist another student to commit an act of academic dishonesty. Fabrication and falsification, respectively, involve the invention or alteration of any information (data, results, sources, identity, and so forth) in academic work. Another example of academic dishonesty is forgery, which involves the duplication of a signature in order to represent it as authentic. Lastly, plagiarism involves the failure to acknowledge sources (of ideas, facts, charges, illustrations and so forth) properly in academic work, thus falsely representing another's ideas as one's own." **PLEASE DO NOT CHEAT. MAKE SURE YOUR WORK IS YOUR OWN!**

Word Processing: If you are looking for a **free** word processor compatible with WORD, checkout www.openoffice.org .

Online Help: Some suggested websites for help. <http://chemistry.about.com/od/homeworkhelp/a/chemistry101.htm> or <http://antoine.frostburg.edu/chem/senesc/101/tutorials/>

Final Grades: DeAnza will publish your final grades. **Please do not ask your professor.** If there are extenuating circumstances requiring your final grade early, please discuss with your professor before you take the final exam.

Grading App: ZipGrade.com will be used for grading some Quizzes and all Exams. Your instructor will send you your access code. Deadlines will be followed. Use this link to create an account for the Student Portal on the left: <https://www.zipgrade.com/s/> . Your ID is your DeAnza ID, the zipgrade access code will be given to you in an email from me.

Changes to Syllabus: **This syllabus may change according to the instructor and the needs of the class.** Please check with the syllabus posted in the Canvas Files. Changes will be noted by a date. Use the most current date. An announcement in Canvas will be made to announce changes.

Introduction to General, Organic and Biochemistry I**Fall 2021, Chem. 30A:03Z & 04Z-Class Calendar****Lecture (Black); Lab (Blue); Quizzes, Exams & Deadlines (Red); Holidays (Green)**

Date (T)	03Z,04Z: Lecture 03Z:Lab	Date (R)	03Z,04Z: Lecture 04Z:Lab
21 Sept	Lecture: Intro to Course and Lab; & Math Skills Ch. 1: Matter and Measurement Lab 03Z: Intro to Science Interactive: Getting Started & Laboratory Safety Due in Canvas before you can begin Limiting Reagents	23 Sept	Lecture: Ch. 1: Cont. Ch. 2: Atoms and the Periodic Table Lab 04Z: Intro to Science Interactive: Getting Started & Laboratory Safety Due in Canvas before you can begin Limiting Reagents
28 Sept	Lecture: Ch. 2: Cont. Quiz 1: Ch. 1 Lab 03Z: Lab 1 (Math)	30 Sept	Ch. 3: Ionic Compounds Quiz 1: DUE-ZipGrade Quiz 2: Ch. 2 Lab 04Z: Lab 1 (Math)
5 Oct	Lecture: Ch. 3: Cont. Ch. 4: Covalent Compounds Quiz 3: Ch. 3 Quiz 2: DUE-ZipGrade *Order SI Lab kit from Bookstore* Lab 03Z: Lab 2-Nomenclature Lab 03Z: Lab 1 DUE-ZipGrade 9/8	7 Oct	Lecture: Ch. 4: Cont. Quiz 3: DUE-ZipGrade Quiz 4: Ch. 4 Lab 04Z: Lab Quiz 2-Nomenclature Lab 04Z: Lab 1 Due-ZipGrade 9/8
12 Oct	Review Exam 1: Chap 1-4 Quiz 4: DUE Lab 03Z: Lab 3-Balancing Reactions Lab 03Z: Lab 2 Due-ZipGrade 9/15	14 Oct	EXAM 1: Chap 1-4 (ZipGrade) Lab 04Z: Lab 3-Balancing Reactions Lab 04Z: Lab 2 Due-ZipGrade 9/15
19 Oct	Lecture: Ch. 5: Chemical Reactions Lab 4 03Z: SI Kit-Limiting Reagents Lab 03Z: Lab 3 Due-ZipGrade 9/22	21 Oct	Lecture: Ch. 5: Cont. Ch. 6: Energy Changes, Reaction Rates and Equilibrium Lab 4 04Z: SI Kit-Limiting Reagents Lab 04Z: Lab 3 Due-ZipGrade 9/22
26 Oct	Lecture: Ch. 6: Cont. Ch. 7: Gases, Liquids, and Solids Quiz 5: Ch. 5 Lab 04Z: SI Kit-Laboratory Techniques and Measurements Lab 4 03Z: SI Kit-Limiting Reagents Due in Canvas 9/29	28 Oct	Lecture: Ch. 7: Cont. Quiz 5: DUE-ZipGrade Quiz 6: Ch. 6 Lab 04Z: SI Kit-Laboratory Techniques and Measurements Lab 4 04Z: SI Kit-Limiting Reagents Due in Canvas 9/29

2 Nov	Lecture: Ch. 8: Solutions Quiz 6: DUE-ZipGrade Quiz 7: Ch. 7 Lab 5 03Z: SI Kit-Observations of Chemical Changes Lab 03Z: SI Kit-Laboratory Techniques and Measurements DUE 11/5	4 Nov	Lecture: Chap 8: Cont. Quiz 7: DUE-ZipGrade Lab 5 04Z: SI Kit-Observations of Chemical Changes Lab 04Z: SI Kit-Laboratory Techniques and Measurements DUE 11/5
9 Nov	Review Exam 2: Ch. 5-7 Lecture: Ch. 9: Acids and Bases Lab 6 03Z & 04Z: SI Kit-Introduction to Chemical Compounds Lab 4 03Z & 04Z: SI Kit-Observations of Chemical Changes Due in Canvas 11/14	11 Nov	Holiday: Veteran's Day Campus Closed/No Class 
16 Nov	EXAM 2: Ch. 5-7 Lab 7 03Z: SI Solutions and Dilutions Quiz 8: Ch. 8 Lab 6 03Z: SI Kit-Introduction to Chemical Compounds Due in Canvas 11/19	18 Nov	Ch. 9: Cont. Ch. 10: Nuclear Chemistry Quiz 8: DUE-ZipGrade Quiz 9: Ch. 9 Lab 7 04Z: SI Kit-Solutions and Dilutions Lab 6 04Z: SI Kit-Introduction to Chemical Compounds Due in Canvas 11/19
23 Nov	Lecture: Ch. 10: Cont. Review for Exam 3: Ch. 8-10 Quiz 9: DUE-ZipGrade Quiz 10: Ch. 10 Lab 7 03Z & 04Z: SI Kit-Solutions and Dilutions Due is Canvas 11/28	25 Nov	Thanksgiving Holiday Campus Closed/No Class 
30 Nov	Review for Exam 3: Ch. 8-10 Review for Final: Ch. 1-10 Quiz 11: Ch. 1-10 (20 pts) 03Z & 04Z Lab: Lab Final-ZipGrade	2 Dec	Exam 3: Ch. 8-10 Quiz 11 DUE-ZipGrade
7 Dec	<u>Study Day: No Class</u>	9 Dec	Final Exam: Ch. 1-10 ZipGrade

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- ionics vs. covalent.