

**Preparation Course for General Chemistry
(Chem. 25.3Z,4Z)
Syllabus for Online Course
Fall 2020-DeAnza College**

Chem. 25: 3Z, 4Z: Lecture: TR 8:30 AM – 10:20 AM – Zoom Link: <https://fhda-edu.zoom.us/j/99084415086>

Lab (25:3Z): T: 11:30 AM-12:20 PM – Zoom Link: <https://fhda-edu.zoom.us/j/93146558579>

Lab (25:4Z): R: 11:30 AM-12:20 PM – Zoom Link: <https://fhda-edu.zoom.us/j/97994485353>

Office Hours T,R: 1:30-2:30 PM -- Zoom Link: <https://fhda-edu.zoom.us/j/94001958286>

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

Office Hours: Available T and R 1:30-2:30 pm. Zoom link: above. Also available upon request. Sent any questions by email and I will respond as soon as I can.

Description: An Introduction to core theory and problem solving techniques of chemistry as preparation for Chemistry 1A at DeAnza College. The course will include an overview of many of the most important topics in general chemistry, including stoichiometry, atomic and molecular structure, solutions, scientific measurement, the periodic table, and chemical reactions. The course material will be approached from both a conceptual and mathematical standpoint.

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

9 Labs (20 pts. each) Reports due 1 week after lab	180
Lab Final	100
10 Best Quizzes	100
3 Exams (100 pts. each)	300
1 Final (200 pts)	200
Total	880 points

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

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

Attendance: **If you do not attend class on the first day of the quarter you may be dropped from enrollment to allow someone on the waitlist to enroll.** Your attendance is urged for all lectures. It is the responsibility of the student to contact the professor regarding missed work. If an absence is anticipated, the student should make arrangements to complete the missed assignments prior to the absence. In an emergency, it is the student's responsibility to contact the instructor within one class period of an exam. I will use the APP CATQR to record your attendance. Please download the free app and create an account.

Online Etiquette: Please attend class properly dressed. No pj's please. Select a quiet, private area if possible. When asking a question, please be sure your mike and camera are on. I want to speak with a face, not a blank space or a photograph.

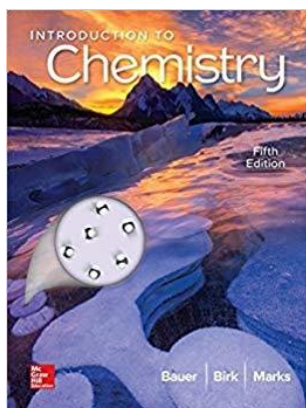
Online Tools: We will be using Canvas, ZipGrade (phone app or website), CATQR (phone app for attendance), PHET (<https://phet.colorado.edu/>) for labs.

Exams: There will be three exams (100 pts each) and one comprehensive final exam (200 pts). There will also be a Lab Final exam (100 pts). You will be graded on your all three exams and the final. You must provide your own calculator. Notice the Due Date and Time for each Exam and Quiz. These due dates and times will be strictly observed. Exam and Quiz KEYS will be posted in Canvas. This is a

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new experience for most of us, but I plan to provide you with an excellent class experience. **Please sign (electronically) and abide by the Honesty Pledge provided for each Quiz and Exam. Your Honesty is paramount for Remote Learning. Thanks!**

Text: **Introduction to Chemistry 5th Edition by Rich Bauer (Author), James Birk (Author), Pamela Marks (Author). McGraw-Hill. 2019. ISBN-13: 978-1259911149, ISBN-10: 1259911144** You may use another edition if you have it, but you are responsible for knowing the differences and what material may be omitted for your copy of the text. For textbook bargain prices check out textbooksrus.com, half.com or Amazon marketplace for used books. For an online text, check out VitalSource.com or you can get your text from the publisher by going to Files in Canvas and look for Online Text and find [ebook_creditcard_2015.pdf](#) and follow the directions

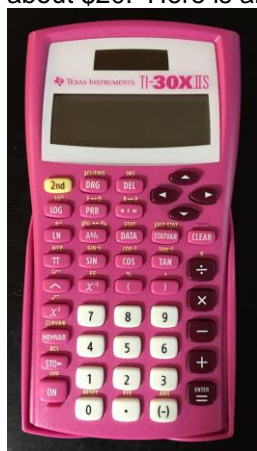


Homework: Homework will **not** be collected or graded. It is for your edification and you are strongly encouraged to work as many of the problems as possible.

Lab Text: Will be available online and listed in Canvas for each lab.

Labs: All 9 labs count towards your grade. No make-up labs. Late labs will incur a penalty.

Calculator: A scientific calculator will be necessary to complete quizzes and exams. You can purchase them for about \$20. Here is an example:



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Academic Dishonesty: Please maintain your academic honesty. It is tempting to cheat during an online exam. I am being very generous to you. Please do your own work on the Exams. I believe you are all 100% honest students. Please do not change that. The only person you harm if you cheat is really yourself. Please adhere to the honesty statements. I thank you and appreciate you.

"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."

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

Help: If you need help with any aspect of this course, please contact your instructor first. You can also contact the Student Success Center at <http://www.deanza.edu/studentssuccess/> to get help with tutoring or with reading, and writing, tutoring or academic skills. Please use this resource.

Grading: We will be using **ZipGrade.com** for all grading. There is an app that works well also the web version works well. Please get an account asap. It is free. For exams, the time limit will be 2 hours. Once you open ZipGrade, you have two hours to complete the exam.

DeAnza Tutoring: You can meet online with tutors through the Student Success Center, <http://www.deanza.edu/studentssuccess/>

Lab Reports: Reports will be in the form of 20-point quizzes. They will be due one week after the lab is complete.

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This is for your information only. It will be used for face-to-face labs in the future.

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:

- 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.
 - 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
 - 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
 - Hair reaching the top of the shoulders must be tied back securely
 - Loose clothing must be constrained
 - Wearing "...jewelry such as rings, bracelets, and wristwatches in the laboratory..." should be discouraged to prevent "...chemical seepage in between the jewelry and skin...".
 - Eating, drinking, or applying cosmetics in the laboratory is forbidden at ALL times, including during lab lecture
 - Use of electronic devices requiring headphones in the laboratory is prohibited at ALL times, including during lab lecture
 - 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.
 - Students are required to know the locations of the eyewash stations, emergency shower, and all exits
 - Students may not be in the lab without an instructor being present
 - Students not enrolled in the laboratory class may not be in the lab at any time after the first lab period of each quarter.
 - 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.
 - 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;
 - 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.
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Chem. 25: 3Z, 4Z Fall DeAnza 2020 Class Calendar

Date Tues (T)	Lecture T/R 3Z & 4Z (8:30-10:20 am) Lab T 3Z (11:30 am-12:20 pm)	Date Thurs (R)	Lecture T/R 3Z & 4Z (8:30-10:20 am) Lab R 4Z (11:30 am-12:20 pm)
22 Sept	Intro to Chem. 25 and Lab Chap 1: Matter and Energy 3Z Lab 1: Measurements, Significant Figures, Calculation: Due 11/29 @ 11:30pm	24 Sept	Ch. 2: Atoms, Ions, and the Periodic Table 3Z,4Z Quiz 1: Ch. 1: Due 29 Sept @11:30 pm 4Z Lab 1: Measurements, Significant Figures, Calculation: Due 1 Oct @ 11:30pm
29 Sept	Ch. 3: Chemical Compounds 3Z,4Z Quiz 2: Ch. 2 :Due 1 Oct @11:30 pm 3Z Lab 2: Density: Due 6 Oct @ 11:30 pm	1 Oct	Ch. 4: Chemical Composition 3Z,4Z Quiz 3: Ch. 3: Due 6 Oct @11:30 pm 4Z Lab 2: Density: Due 8 Oct @ 11:30 pm
6 Oct	Ch. 5: Chemical Reactions and Equations 3Z,4Z Quiz 4: Ch. 4: Due 8 Oct @11:30 pm 3Z Lab 3: Ionic Compounds: Their Names and Formulas: Due 13 Oct @ 11:30 pm	8 Oct	Ch. 6: Quantities and Chemical Reactions Exam 1 Review 3Z,4Z Quiz 5: Ch. 5: <u>Due 15 Oct @11:30 pm</u> 4Z Lab 3: Ionic Compounds: Their Names and Formulas: Due 15 Oct @ 11:30 pm
13 Oct	3Z,4Z Exam 1: Ch. 1-4: Due 13 Oct 3Z Lab 4: Chemical Reactions: Due 20 Oct @ 11:30 pm	15 Oct	Ch. 7: Electron Structure of the Atom 3Z,4Z Quiz 6: Ch. 6: Due 20 Oct @11:30 pm 4Z Lab 4: Chemical Reactions: Due 22 Oct @ 11:30 pm
20 Oct	Ch. 8: Chemical Bonding 3Z,4Z Quiz 7: Ch. 7: Due 22 Oct @11:30 pm 3Z Lab 5: Stoichiometry: Due 27 Oct @ 11:30 pm	22 Oct	Ch. 9: The Gaseous State 3Z,4Z Quiz 8: Ch. 8: Due 27 Oct @11:30 pm 4Z Lab 5: Stoichiometry: Due 29 Oct @ 11:30 pm
27 Oct	Ch. 10: The Liquid and Solid States 3Z,4Z Quiz 9: Ch. 9 Due 29 Oct @11:30 pm 3Z Lab 6: Atomic Structure: Due 3 Nov @ 11:30 pm	29 Oct	Ch. 11: Solutions 3Z,4Z Quiz 10: Ch. 10: Due 3 Nov @11:30 pm 4Z Lab 6: Atomic Structure: Due 5 Nov @ 11:30 pm
3 Nov	Exam 2 Review 3Z,4Z Quiz 11: Ch. 11: <u>Due 5 Nov @11:30 pm</u> 3Z Lab 7: Covalent Compounds: Due 10 Nov @ 11:30 pm	5 Nov	Exam 2: Ch. 5-8: Due 5 Nov @ 11:30 pm 4Z Lab 7: Covalent Compounds: Due 12 Nov @ 1130 pm
10 Nov	Ch. 13: Acids and Bases 3Z Lab 8: Gas Laws: Due 17 Nov @ 11:30 pm	12 Nov	Ch. 13: Cont. Quiz 12: Ch. 13 Due 17 Nov @11:30 pm 4Z Lab 8: Gas Laws: Due 19 Nov @ 11:30 pm
17 Nov	Ch. 14: Oxidation-Reduction Reactions	19 Nov	Ch. 14: Cont.

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	3Z Lab 9: Titration of the Acid Content in Vinegar: Due 24 Nov @ 11:30 pm		3Z,4Z Quiz 13: Ch. 14: Due 24 Nov @ 11:30 pm 4Z Lab 9: Titration of the Acid Content in Vinegar: Due 26 Nov @ 11:30 pm
24 Nov	Review for Exam 3 3Z Lab Final: Due 24 Nov 4Z Lab Final: Due 24 Nov	26 Nov	Thanksgiving Holiday-Campus Closed
1 Dec	3Z,4Z Exam 3: Ch. 9-11, 13, 14: Due 1 Dec	3 Dec	Review for Final Exam
8 Dec	Study Day-No Class	10 Dec	Final Exam: Ch. 1-11, 13, 14 7:00 to 9:00 am: Due 10 Nov @ 9:00 am

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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.