

Preparation Course for General Chemistry

(Chem. 25.61,62) updated 4/15/2020

Syllabus-Spring 2020-DeAnza College

Lecture (61 & 62): MW 5:30 PM – 7:20 PM – Zoom Link: <https://cccconfer.zoom.us/j/941578789>

Lab (62): W: 7:30-10:20 PM – Zoom Link: <https://cccconfer.zoom.us/j/327807173>

Lab (61): M: 7:30-10:20 PM – Zoom Link: <https://cccconfer.zoom.us/j/625312237>

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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 M and W 4-5 pm. Zoom link : <https://cccconfer.zoom.us/j/680915862>
Also available upon request. Send any questions by email.

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:

10 Labs (20 pts. each) Reports due 1 week after lab	200
Lab Final	100
10 Best Quizzes	100
3 Exams (100 pts. each)	300
1 Final (200 pts)	200
Total	900 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. Please sign (electronically) the attendance sheet for each class.

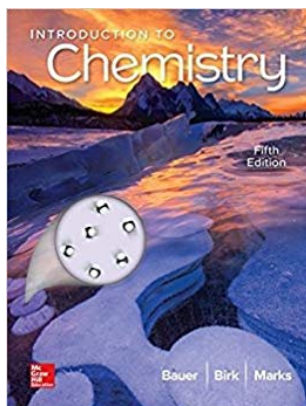
Online Etiquette: Please attend class properly dressed. No pj's please. Select a quiet, private area if possible. When asking a question, Please be sure your mike and camera are on. I want to speak with a face, not a blank space or a photograph.

Online Tools: We will be using Canvas, Schoology, Connect and Labster.

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 a calculator. Notice the Due Date and Time for each Exam and Quiz. These due dates and times will be strictly observed. Keys to Exams and Quizzes will be available through Schoology. This is a new experience for most of us, but I plan to provide you with an excellent class experience. **Please abide by the Honesty Pledge provided for each Quiz and Exam. Your Honesty is paramount for Remote Learning. Thanks!**

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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 know the differences and what material may be omitted for your copy of the text. This text will be available through Connect at no charge. Info will be provided.



CONNECT: This link should get you to Connect and Homework and your text.
Connect Code: **GVFY-I4A0-SSH0-TJLZ-GV6U**
<https://connect.mheducation.com/class/j-maxwell-spring-m-w>

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: Labster (in Canvas) and other online tools will be used for the laboratory text. No purchase necessary.

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:



Ruler: A ruler marked in centimeters will be useful for labs.

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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."

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/studentsuccess/> to get help with tutoring or with reading, and writing, tutoring or academic skills. Please use this resource.

Schoology: We will be using **Schoology.com** to communicate during this course. You will find PowerPoint presentations, the Syllabus, exam keys, quiz keys, and other important information here. Please sign up using the instructions below. Please let me know if you have any problems. Following these instructions using the access code given to sign-up for Schoology for Chem 25:62 Spring 2020 Section 62, Instructor Maxwell. Go to <https://app.schoology.com/register.php?type=student>

- 1 Select Student.
- 2 Use Access CODE: **MTZM-TPRZ-MVKCM**
- 3 Fill out the form "Sign Up for Schoology".
- 4 Click Register to complete. Please use your real age. A false age can cause a problem.
- 5 When you use a course access code to create an account, you are automatically enrolled in the course. To join additional courses in Schoology, click on the Join link in the Courses dropdown menu at the top of the page.

DeAnza Tutoring: You can meet online with tutors through the Student Success Center, <https://drive.google.com/file/d/1T1gBhfHQzEA6Kus7pHzMrbUyD8p4pIre/view?invite=CParyzM&ts=5e8e8b77>

Lab Reports: All 9 labs count towards your grade. Late labs will incur a penalty.

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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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Class Calendar Chem. 25:62 Spring 2020

Date Mon	Lecture (61,62) Lab (61)	Date Wed	Lecture (61,62) Lab (62)
13 Apr	Intro to Chem. 25 and Lab Ch. 1: Matter and Energy Lab 1 (61): Intro to Lab; Measurements	15 Apr	Ch. 1: cont. Ch. 2: Atoms, Ions, and the Periodic Table Quiz 1: Ch. 1 (Due 4/20@ 11pm) Lab 1 (62): Intro to Lab; Measurements
20 Apr	Ch. 2: Cont. Ch. 3: Chemical Compounds Quiz 2: Ch. 2 (Due 4/22@ 11pm) Lab 2 (61): Density/Graphing (LAB 1 Quiz (61) DUE 11 PM)	22 Apr	Ch. 3: Cont. Ch. 4: Chemical Composition Quiz 3: Ch. 3 (Due 4/27@ 11pm) Lab 2 (62): Density/Graphing (LAB 1 Quiz (62) DUE 11 PM)
27 Apr	Ch. 4: Cont. Ch. 5: Chemical Reactions and Equations Quiz 4: Ch. 4 (Due 4/29@11 PM) Lab 3 (61): Ionic Compounds: Their Names and Formulas (LAB 2 Quiz (61) DUE 11 PM)	29 Apr	Ch. 5: Cont. Review for Exam 1 Ch. 6: Quantities and Chemical Reactions Quiz 5: Ch. 5 (Due 5/1@11 PM)**** Lab 3 (62): Ionic Compounds: Their Names and Formulas (LAB 2 Quiz (62) DUE 11 PM)
4 May	Exam 1: Ch. 1-5 (DUE 11 PM) I will be available for questions via Zoom or email (maxwelljames@fhda.edu) Quiz 6: Ch. 6 (DUE 5/6@11 PM) Lab 4 (61): Chemical Reactions (LAB 3 Quiz (61) DUE 11 PM)	6 May	Ch. 6:Cont. Ch. 7: Electron Structure of the Atom Quiz 6: Ch. 6 (DUE 5/11@11 PM) Lab 4 (62): Chemical Reactions (LAB 3 Quiz (62) DUE 11 PM)
11 May	Ch. 7: Cont. Ch. 8: Chemical Bonding Quiz 7: Ch. 7 (DUE 5/13@11 PM) Lab 5 (61): Stoichiometry (LAB 4 Quiz (61) DUE 11 PM)	13 May	Ch. 8: Cont. Ch. 9: The Gaseous State Quiz 8: Ch. 8 (DUE 5/18@11 PM) Lab 5 (62): Stoichiometry (LAB 4 Quiz (62) DUE 11 PM)
18 May	Ch. 9: Cont. Ch. 10: The Liquid and Solid States Quiz 9: Ch. 9 (DUE 5/20@11 PM) Lab 6 (61): Atomic Structure (LAB 5 Quiz (61) DUE 11 PM)	20 May	Ch. 11: Solutions Review Exam 2 Ch. 10: Ch. 10 *** (DUE 5/22@11 PM)*** Lab 6 (62): Atomic Structure (LAB 5 Quiz (62) DUE 11 PM)
25 May	Memorial Day Holiday: No Class	27 May	Exam 2: Ch. 6-10 (DUE 11 PM) Quiz 11: Ch. 11 (DUE 6/1@11 PM) Lab 7 (61 and 62): Covalent Compounds (LAB 6 Quiz (61 and 61) DUE 11 PM)
1 June	Ch. 11: Cont. Ch. 13: Acids and Bases Lab 8 (61): Gas Laws (LAB 7 Quiz (61) DUE 11 PM)	3 June	Ch. 13: Cont. Lab 8 (62): Gas Laws (LAB 7 Quiz (62) DUE 11 PM)
8 June	Ch. 14: Oxidation-Reduction Reactions Quiz 12: Ch. 13 (DUE 6/10@11 PM) Lab 9 (61): Titration of the Acid Content in Vinegar (LAB 8 Quiz (61) DUE 11 PM)	10 June	Ch. 14: Cont. Review for Exam 3 and Final Lab 9 (62): Titration of the Acid Content in Vinegar (LAB 8 Quiz (62) DUE 11 PM)
15 June	Review for Exam 3 and Final Quiz 13: Ch. 14 *** (DUE 6/16@11 PM)*** (LAB 9 Quiz (61) DUE 11 PM)	17 June	Exam 3: Ch. 11, 13, 14 (DUE 11 PM) Lab Final (61,62) (DUE 11PM) (LAB 9 Quiz (62) DUE 11 PM)
22 June	Final Exam (61,62): Chap 1-11,13,14 (DUE 11 PM)	24 June	No Class

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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.