

CHEMISTRY 30A SYLLABUS

GENERAL INFORMATION

CHEMISTRY30A Section 01Z CRN13258 Summer 2021

Instructor: Chad Miller E-mail: millerchad@fhda.edu

Lecture	MTWTh	2:30PM – 4:20PM	Online Zoom
Lab	MTWTh	4:30PM – 5:20PM	Online Zoom

<https://deanza.edu/online-ed/students/remoteteaching.html> Student resource hub for Canvas and Zoom

Course Description: This is a two-part course to be taken in sequence by students entering the allied health fields. The focus of the first part of this course is an introduction to general chemistry with a discussion of various measurement tools, followed by a discussion of energy and matter, and the discovery of an atom. The next set of topics will cover an introduction to elements, compounds, and types of bonding in compounds, followed by various types of chemical reactions and stoichiometric calculations based on chemical equations. The course will discuss the properties of gases and solutions and concludes with a discussion of acid-base chemistry and nuclear chemistry.

Required Materials:

- ✓ **Text Book:** Janice G. Smith, **General, Organic and Biological Chemistry**, 4th ed., 2018, McGraw-Hill. (Smith, 4th edition or 5th edition Chem 30A-ISBN: 9781307601619-\$30). You can purchase a digital text for the course at the McGraw-Hill publisher link:
<https://www.mheducation.com/highered/custom/product/9781307601619.html>
McGraw-Hill technical support: 1-800-962-9342. You can also purchase the textbook from the De Anza online bookstore. You may use either the 4th edition or the more recent 5th edition as a textbook.
- ✓ **HOL Science lab kit and lab access through Canvas:** Order the HOL Science lab kit from the De Anza online bookstore. Also, use this link to create an HOL Science Interactive account:
<https://myhol.holscience.com/enroll/hwfz-ndtb-cfhd-mnxf>
- ✓ A scientific calculator is required in order to properly prepare lab reports and answer problems on exams. An example of a calculator that can meet the needs of this course is the Texas Instruments: TI-30XIIS
- ✓ **Computer or laptop with Internet connectivity capable of using Zoom meeting software with audio, video, chat and to access Canvas and course content.** Note that all lectures and lab meetings will be conducted using Zoom meeting software. The lab Zoom sessions may vary in terms of start and end times and the instructor will provide details and advance notice. Office hours will be provided using Zoom meeting software.

Important Dates: Please note the following dates

- ☑ **June 28: Attend the 1st lecture and lab session in order to maintain registration in this course.**
- ☑ **August 5: Final Exam date**

Online classroom courtesy: We want to achieve the highest level of learning experience in lecture and in lab and to accomplish that please refrain from using audio and video unless permitted by the instructor. All online interactions including audio, video and chat need to pertain to the course material or have relevance as determined by the instructor. Only registered students, authenticated by their name and email address, can participate in Zoom lecture and lab sessions. Students who engage in disruptive conduct will be removed from the Zoom meeting session and may be dropped from the course.

Attendance & Academic Integrity: Students are expected to attend all Zoom meeting lectures and labs and be interactive with camera on and microphone enabled. The course Grading Policy details the specifics for lack of attendance. All incidents of dishonest, unethical behavior including any cheating, copying the work of others and claiming it is your originality (also known as plagiarism), altering any graded exams, lab reports, other classroom materials will be reported to the College Administration. It is your responsibility to recognize academic dishonesty: <http://www.deanza.edu/studenthandbook/academic-integrity.html>

Instructional and Student Resources: DeAnza College provides a variety of resources to facilitate learning experiences including those listed below. Please visit <http://www.deanza.edu/student-services/> to learn more.

- **Student Success Center:** <http://www.deanza.edu/student-success/>
- **Counseling and Advising Center:** <http://www.deanza.edu/counseling/> Provides support in the form of counseling and assistance on academic matters and personal challenges.
- **Disability Support Programs & Services:** <http://www.deanza.edu/dsps/> Offers support services including accommodations and educational classroom assistance designed to help students with disabilities. Resources can be reached at 408.864.8753.

GRADING POLICY CHEM30A Chad Miller Summer 2021

Item	% of grade	Points
Exam 1	20	200
Exam 2	20	200
Exam 3	20	200
Final Exam (lecture/lab)	26	260
HOL lab evaluations	14	140
Total	100	1,000

Grade	Points	Grade	Points
A	900 - 1000	C	700 - 778
A-	890 - 899	D	500 - 699
B	800 - 889	F	<500
B-	790 - 799		
C+	779 - 789		
Total Points determines the letter grade			

Laboratory: Seven HOL Science Interactive lab evaluations will be individually graded and sum to 140 points. The Final Exam will include a laboratory portion of 60 points out of the total 260 points.

1. The HOL Science home lab kits will be available to begin experiments starting the third week of the course.
2. Students must register with HOL Science in order to participate in the labs using Canvas. Students will order the HOL lab kit directly from the De Anza online bookstore.
3. The 'Getting Started and the Laboratory Safety' modules must be completed and submitted prior to beginning the kit chemistries.
4. The due dates for lab reports are indicated on the schedule. These are due dates that need to be adhered to by all students. Students will submit a legible and annotatable PDF document of the HOL lab evaluation form on Canvas in the respective lab module.
5. The instructor will review the content of the labs with the class before students start the procedures.
6. All safety practices must be adhered to by students according to the specifications designated by the HOL Science Company.

Three (3) Midterms: 20% each exam and together sum to 60% of the total course grade

1. The lecture midterms will highlight material covered in class lectures and in the textbook.
2. The dates and times of the midterm exams are indicated in the Schedule.
3. Midterm exam grades will not be dropped. An unexcused missed midterm exam will have a point score of '0/200' points. In the event a student submits a physician letter- or otherwise sufficiently documented reason for an absence resulting in missing one midterm exam, then the Final exam will be weighted as 40% of the total grade (20% + 20%). The Final exam score will not compensate in any manner or be adjusted for two missed midterm exams. Only one documented absence for one exam will be accommodated in this manner, any other missed exam receives a zero (0) point score.
4. The Schedule includes specific lecture dates dedicated to reviews of the material which will most likely be covered on the exams to provide abundant support for student comprehension and course achievement.

Final Exam: 26% of the total course grade

1. The Final Exam will cumulatively assess the student's ability to be conversant in the course content and familiarity with the topics that are covered in the lectures and laboratory.
2. The date and time of the Final Exam are identified in the Schedule.
3. The Final Exam cannot be rescheduled, dropped from the total course grade or substituted.
4. No make-up Final Exam will be given.

LECTURE SCHEDULE CHEM30A Chad Miller Summer 2021 (Lecture & lab content and dates subject to change)

Week	Date	Lecture Content	Lecture Exam Dates	Lab Content HOL Science	Lab HOL Due Dates
1	6/28	Introductions; Syllabus review CH1 Matter & Measurements		HOL: Getting started and laboratory safety	7/06
	6/29	CH1 Calculations; temperature, heat/energy; density			
	6/30	CH2 Atoms and the Periodic Table			
	7/01	CH2 Electron configuration			
2	7/06	CH3 Ionic compounds CH4 Covalent compounds			
	7/07	Exam 1 class study session			
	7/08	Exam 1	Exam 1		
3	7/12	CH5 Chemical reactions/mass relationships classification, moles, balancing chemical reactions, limiting reactant		HOL: Techniques and measurements	7/19
	7/13	CH5 Balancing chemical reactions, limiting reactants continued			
	7/14	CH6 Energy changes, reaction rates, chemical equilibrium		HOL: Introduction to chemical compounds	7/21
7/15	Exam 2 class study session				
4	7/19	Exam 2	Exam 2		
	7/20	CH7 Gases, liquids, solids		HOL: Observations of chemical changes	7/25
	7/21	CH7 Gases, liquids, solids continued, phase changes			
	7/22	CH8 Solutions			
5	7/26	CH8 Solutions continued, dilutions, colligative properties		HOL: Limiting reactants	7/30
	7/27	Exam 3 class study session			
	7/28	Exam 3	Exam 3		
6	7/29	CH9 Acids and bases		HOL: Solutions and dilutions	8/03
	8/02	CH9 Acids and bases continued			
	8/03	CH10 Nuclear Chemistry			
	8/04	Final exam class study session			
	8/05	Course final exam	Final Exam		

Please Note: All content provided in this course is intended for use by De Anza students who are actively registered in the course. All instructor content is under copyright protection. There is no permission to distribute any course content to third-parties, individuals, companies or their Web sites without request of the instructor and the instructor's written permission that is signed and dated. Any violation of this practice constitutes copyright infringement and is a legal matter.

This six-week summer course covers the content that is studied during a twelve-week academic quarter and thus necessarily is conducted at a faster pace with classes meeting every day, Monday through Thursday.

Attend all remote learning sessions for Zoom lectures and labs and check the course Canvas site and your email for class updates. There is a significant amount of learning that takes place during each class lecture and in each lab session and the optimal way to learn and keep current with the stream of content is to attend all class and lab online/live-broadcast meetings and participate in all learning activities in class and in the labs.

1. Read text book chapters and review the solved problems. Read lecture presentation materials in advance of class.
2. Participate in all class discussions.
3. Ask questions to gain clarification and a correct understanding.
4. Identify, establish and maintain a compatible study environment free of distraction.
5. If helpful, and it is my recommendation, study remotely with classmates for support.
6. Learn the material as it is presented and do not accumulate unread chapters or content.
7. Do not attempt to study too much material at any one point.
8. Do not cram before exams – pace your study and problem solving at the class tempo.
9. Try to maintain a healthy lifestyle to facilitate learning and balance school, work and life.
10. Be kind to yourself and try your best to achieve success and know that a good-natured attitude combined with motivation certainly helps keep students on track.

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.