Course Grading De Anza College Chemistry Department Winter 2024

COURSE TITLE

Chemistry 10 Sec 23 & 24 General Chemistry

Class 01/08/23 to 03/29/23

Meeting times: Lecture – TTh 2:30 PM - 4:20 PM SC1102

Laboratory – Sec 23 T 11:30 AM – 02:20 PM SC2208

Sec 24 Th 11:30 AM – 02:20 PM SC2208

INSTRUCTOR

John Cihonski Contact: School e-mail: cihonskijohn@fhda.edu
Zoom code (if needed): https://fhda-edu.zoom.us/j/9071890886

OFFICE HOURS

Office Hours – TTh 10:30 – 11:30 AM in Chem Offices or just catch me

Course Description: An introduction to the discipline of chemistry, including chemical laboratory techniques, methods and a survey of important chemical principles. The course emphasizes chemistry as a subject of scientific inquiry and is designed to give the student a general appreciation for chemistry as a science. We will be examining some of the central themes of chemistry as well as how understanding chemistry can impact our daily lives. This course is not a prerequisite for General Chemistry, nor does it serve as adequate preparation. Students hoping to enroll in Chem 1A should take Chem 25 or Chem 30A in preparation.

REQUIRED MATERIALS

Syllabus for Chem 10 pdf

Text Options (Instructor provided via memory stick):

1 Complete Study Guide to Chemistry - Kernion & Mascetta 2021

2 Chemistry - Mascetta & Kernion (2016) Barron's SAT Subject Test

🔁 3 Chemistry for Changing Times, 14e - Hill, Kolb, McCreary 2016

4 Chemistry for Changing Times Libratexts (e-PDF ed for Chem 10)

🏂 5 Chemistry Openstacks Rice text 🔀 Chem 1 text

Lab Experiments – a PDF file containing the experimental procedures will be provided on the text book memory stick

Test Support Information Packet

+ a Basic Scientific Calculator

Attendance - Attendance is required for **all** laboratory sessions and highly encouraged for lectures. If you miss a lab or exam, you must have a valid reason and verifiable written documentation to support your absence (e.g. letter from doctor including address and phone number).

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Lecture & Exams – Lecture is recommended but optional. There will be two regular exams worth 100 points each and a <u>comprehensive final</u> exam worth 200 points. At the discretion of the instructor, a makeup exam may be allowed for an urgent medical or legal situation which prevents a student from attending class.

Homework – Homework is also optional. However, it is important for your learning and it will help if you are on the border of a grade. "Homework" constitutes the problems related to each lesson that address the material covered in the lecture slides.

Laboratory - All laboratories are required (NOT Optional – see Attendance). *Final lab reports are due at the beginning of the following lab*. If a lab report is late it will be penalized twenty percent per day. For all laboratory experiments the final report will consist of three parts:

- An Advance Study Assignment that must be completed and initialed by the instructor prior to the beginning of the lab period. No prelab ≡ no lab. The Advanced Study Assignment consisting of a one page hand written (cursive) overview of the experiment consisting of 1) a goal statement clearly stating the purpose of the experiment and how you will accomplish it, 2) a list of any special equipment and chemicals required, 3) acknowledgement of any special safety related issues and 4) the identity of your lab partner (No more than two /team).
- Laboratory Data & Calculations pages cover the data collected and the calculations required for the experiment. The data must be also must be initialed before leaving the lab but the calculations can be completed outside the lab.
- A cursive *Results and Conclusions* page that outlines your key results and their meaning (conclusions) that someone who has not taken Chem 10 can read and learn from.
- The *final report* will contain all three sections. An incomplete report will receive a zero. The basis for each Lab report grade will be comprised of 1/4 (5 pts) for the Advanced Study Assignment, 1/4 (5 pts) for the lab data collection and calculations and 1/2 (10 pts) for your conclusions section for a total of 20 pts/lab report.

Minimum Course Score Grade (%)	Grade	Course Score formula	
90	A	(2E + F + L)/560 = Grade	
80	В		Total Points
65	C	Exams (E) 2 x 100 pts/exam	200
55	D	F = Final Exam	200
		L = Laboratory Reports 8 x 20pts	160
	-	Total Possible Points	560

Chemistry 10: Lecture TTh 2:30 – 4:20 PM, SC1102

Topic					
1	Basic, Definitions, Measurement & Scientific Method				
2	Atoms, Atomic Structure and Periodic Table				
4	Chemical Bonding				
5	Molecular Electronic & Geometric Structure				
6	Nomenclature				
Exam 1					
7	Molecular Stoichiometry				
8	Chemical Reactions & Stoichiometry				
9	Solutions & Solution Stoichiometry				
10	Gases & Gas Stoichiometry				
Exam 2					
11	Acids & Bases				
12	Oxidation-Reduction & Electrochemistry (Batteries)				
13	Organic Chemistry				
14	Polymers				
Comprehensive Final Exam March 26 th					

Chemistry 10: Laboratory – Sec 23 T 11:30 AM – 02:20 PM SC2208 Sec 24 Th 11:30 AM – 02:20 PM SC2208

Week	Week of:	Laboratory
1	Jan 07	Check-In
2	Jan 14	Exp 1 Taking measurements
3	Jan 21	Exp2 Percent water in popcorn
4	Jan 28	Exp 3 Electron dot structures
5	Feb 04	Exp 4 Molecular shapes
6	Feb 11	Exp 5 Solutions
7	Feb 18	Exp6 Upset stomach
8	Feb 25	Exp 7 How much fat?
9	Mar 03	Exp 8 Organic Molecules
10	Mar 10	
11	Mar 17	Check-Out

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. Furth	er, I acknowledge that my f	ailure to abide by these rules will result in
my being dropped f	rom this chemistry class im	mediately.
<u> </u>		
Signature Date		

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Student Learning Outcome(s):

- Develop problem solving techniques by applying the "Scientific Method" to chemical data.
- Analyze and solve chemical questions utilizing information presented in the periodic table of the elements.
- Evaluate current scientific theories and observations utilizing a scientific mindset and an understanding of matter and the changes it undergoes.

Office Hours:

T,TH	09:00 AM	11:30 AM	In-Person,By Appointment	Chem offices area
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