De Anza College Chemistry Department Fall 2017

COURSE TITLE

Chemistry 10 Sec 01 & 02 General Chemistry

Class 09/25/17 to 12/15/17

Meeting times: Lecture – TTh 10:30 AM - 12:20 PM, MQ-3

Laboratory - Sec 01 T 07:30 - 10:30 AM SC2208

Sec 02 Th 07:30 – 10:30 AM SC2208

INSTRUCTOR

John Cihonski

Contact: School e-mail: cihonskijohn@fhda.edu

OFFICE HOURS

Office Hours – TTh 02:30 – 03:30 PM in Chem Offices or just catch me

REQUIRED MATERIALS

- 1) EZ Chemistry, Mascetta & Kernion (2009)
- 2) Chemistry (Open Stax) found at https://openstax.org/details/chemistry. Free on —line text
- 2) John Suchocki, Donna Gibson "Conceptual Chemistry", 5th Edition, Prentice Hall (2014)
- 4) Scientific calculator

Course Description: An introduction to the discipline of chemistry, including chemical laboratory techniques and 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 an understanding of chemistry can impact our daily lives.

Learning Outcomes for Chem 10:

- 1. Develop problem solving techniques by applying the Scientific Method to chemical data.
- 2. Evaluate the relationship between molecular structure and chemical properties of compounds.

Grading Scheme

Minimum Course Score Grade (%)	Grade	Course Score formula $(3E + F + L)/580 = Grade$	
90	A	(3E + F + E)/360 = Grade	
80	В		Possible points
65	C	E = Exam scores	300
55	D	F = Final exam score	200
		L = Laboratory score	80
	-	Total Possible Points	580

Dropping - It is the responsibility of the student to drop the class or a failing grade will be assigned.

Attendance - Attendance is required for **all** laboratory sessions and highly encouraged for lectures. The course is impacted; there is neither make-up time in the course nor space for you to work in other sections. If you miss a lab, you must discuss the issue with the course instructor (valid reason and written documentations will be required).

- The 1st and 2nd unexcused missed labs will result in zeros.
- The 3rd unexcused missed lab will result in failing the course.

Lecture - Each of the three exams will be worth 100 points and the comprehensive final exam will be worth 200 points. If a student is absent during any exam, he/she will receive a grade of zero. 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. In such cases, all of the following requirements will apply: 1) Student must present documentation of the reason for absence (letter from doctor or court official, including address and phone number) to the instructor on the day student returns to school, 2) Exam must be made up within two days of missed exam, 3) Only one make-up exam is allowed per quarter. Unethical behavior of any kind can result in dismissal from the course with an F grade at the instructor's discretion. Work must be shown on all problems to receive credit. Bathroom breaks during an exam are strongly discouraged.

Homework – Homework is 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 addresses the material covered and are answered in the back of the text.

Laboratory - All laboratories are expected to be completed (see Attendance). Lab reports are due within the first five minutes of the next lab period. If a lab report is late it will be penalized twenty percent per day. For all laboratory experiments, the Advance Study Assignment must be completed and initialed by the instructor prior to the beginning of the lab period. The advanced Study Assignment consists of a one page over view 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 and 3) acknowledgement of any safety related issues related to item 2). Laboratory data sheets must also be initialed by the instructor before leaving the lab. The initialed Advance Study Assignment and the initialed lab data sheet must be turned in with the completed (calculations and post lab questions) lab report. An incomplete report will receive a zero.

Chemical Disposal and Clean-up (Laboratory Related)

As a concern for the environment and to follow county, state and federal law, proper chemical disposal is essential. Students who do not comply with directed procedures may be expelled from the lab or failed in the course for repeated offenses. Check with the instructor if you have any questions. All students are requested to do a conscientious and thorough job of cleaning up after themselves, whether it is in their own work area in the lab, or shared areas such as the chemical supply table and balance room.

• Chemistry 10: Lecture TTh 10:30 AM - 12:20 PM, MQ-3

Topic				
1	Basic, Definitions, Measurement Scientific Method			
2	Atoms, Atomic Structure and Periodic Table			
3	Nuclear Chemistry			
Exam 1				
4, 5, 7	Bonding in Molecules & Stoichiometry			
6	Nomenclature			
8, 9, 10	Chemical Reactions (Solution & Gas Phase) & Stoichiometry			
Exam 2				
11	Acids-Bases			
12, 13	Oxidation-Reduction & Electrochemistry			
Exam 3				
14	Organic Chemistry			
15	Polymers			
16	Biochemistry			
Final Exam December 14 th , 9:15 – 11:15 AM				

• Chemistry 10: Laboratory – Sec 01 T 07:30 – 10:30 AM SC2208 Sec 02 Th 07:30 – 10:30 AM SC2208

Week	Day	Laboratory
1	Sept 24	Check-In
2	Oct 1	Exp #2 Taking measurements
3	Oct 8	Exp #4 Percent water in popcorn
4	Oct 15	Exp #9 Electron dot structures
5	Oct 22	Exp #10 Molecular shapes
6	Oct 29	Exp #11 Solutions
7	Nov 5	Exp #17 Upset stomach
8	Nov 12	Exp # 13 How much fat?
9	Nov 19	Holiday
10	Nov 26	Exp # 21 DNA capture
11	Dec 3	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. Further, I acknowledge that my failure to abide by these rules will result in my being dropped from this chemistry class immediately.						
Signature Date						