

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 | | |
| 80 | B | | Possible |
| 65 | C | E = Exam scores | points |
| 55 | D | F = Final exam score | 300 |
| | | L = Laboratory score | 200 |
| | | | 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 14th, 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 |

