CHM 1045 College Chemistry I

# Syllabus-Spring 2021 CRN20172

# Instructor

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Office hours. Office hours using Zoom. Meeting invitations are posted in Canvas (Announcements tab) Mon: 9-10am; Tues: 10am-11am; Wed: 11am-12noon; Thurs: 12noon-1pm; Fri: 1pm-2pm. Five “virtual” office hours (text/email/phone) are the hour after each Zoom office hour. Other times are available by appointment.

# Text

*Chemistry*, *The Molecular Nature of Matter and* Change, 9e, by Silberberg, et. al.We will cover Chapters 1-11. Hard copies are available from the publisher when you sign up for the online services Also required: a scientific calculator, internet access.



# Grading

| Assignment | Points |
| --- | --- |
| Ch 1-11 ALEKS Objectives (30x11) | 330  |
| 14 Lab reports (30x14) | 420 |
| 3 tests (100x3) | 300 |
| Final exam (100) | 100 |
| Discussions (5x7) | 35 |
| Total points | 1185 |

| Score (percentage) | Letter Grade |
| --- | --- |
| 88-100 | A |
| 77-88 | B |
| 65-77 | C |
| 50-65 | D |
| <50 | F |

# Schedule

| ALEKS Exercise (points) | Due date in ALEKS |
| --- | --- |
| Chapter 1 Objective (30) | Saturday, 1/23/2021 |
| Chapter 2 Objective (30) | Saturday, 1/30 |
| Test 1 (chapters 1,2) (100) | Sunday, 1/31 |
| Chapter 3 Objective (30) | Saturday, 2/13 |
| Chapter 4 Objective (30) | Saturday, 2/20 |
| Chapter 6 Objective (30) | Saturday, 2/27 |
| Test 2 (chapters 3,4,6) (100) | Sunday, 2/28 |
| Chapter 7 Objective (30) | Saturday, 3/06 |
| Chapter 8 Objective (30) | Saturday, 3/20 |
| Chapter 9 Objective (30) | Saturday, 3/27 |
| Chapter 10 Objective (30) | Saturday, 4/03 |
| Chapter 11 Objective (30) | Saturday, 4/10 |
| Test 3 (chapters 7,8,9,10,11) (100) | Sunday, 4/11 |
| Chapter 5 Objective (30) | Saturday, 4/17 |
| Final Exam (100)  | Saturday, 5/01 |

| Lab Exercise (Points) | Due date in Canvas or Virtual Labs |
| --- | --- |
| 1. Lab Intro/Safety (30)
 | Saturday, 1/16/2021 (Canvas) |
| 1. Lab Skills (30)
 | Saturday, 1/23 (Virtual Labs) |
| 1. Density (30)
 | Saturday, 1/30 (Virtual Labs) |
| 1. Periodic Table (30)
 | Saturday, 2/06 (Canvas) |
| 1. Nomenclature (30)
 | Saturday, 2/13 (Canvas) |
| 1. Reactions in Solution
 | Saturday, 2/20 (Virtual Labs) |
| 1. Standardization of NaOH (30)
 | Saturday, 2/27 (Virtual Labs) |
| 1. Determine Conc. of Vinegar (30)
 | Saturday, 3/06 (Virtual Labs) |
| 1. Synthesis: Calcium Carbonate (30)
 | Saturday, 3/20 (Virtual Labs) |
| 1. Det. Heat Cap. of Calorimeter (30)
 | Saturday, 3/27 (Virtual Labs) |
| 1. Electron Configuration (30)
 | Saturday, 4/03 (Canvas) |
| 1. Atomic Emissions (30)
 |  Saturday, 4/10 (Canvas) |
| 1. Molecular Models (30)
 |  Saturday, 4/17 (Canvas) |
| 1. Ideal Gas Law Constant (30)
 |  Saturday, 4/24 (Virtual Labs) |

| Discussion exercise (Points) | Due date in Canvas  |
| --- | --- |
| 1. Introduction (5)
 | Saturday, 1/16/2021 |
| 1. Milligrams to grams (5)
 | Saturday, 1/23 |
| 1. Formula and formula mass (5)
 | Saturday, 1/30 |
| 1. Moles of reactant (5)
 | Saturday, 2/06  |
| 1. Stoichiometry (5)
 | Saturday, 2/13  |
| 1. Molar concentration (5)
 | Saturday, 2/20 |
| 1. Reflection (5)
 | Saturday, 2/27 |

# Labs, tests, scoring, and makeups

You will learn chemistry (and take tests) by using adaptive learning software called ALEKS and perform simulated laboratory experiments using Virtual Labs. You earn 30 points for the completion of each of the eleven Chapter Objectives in ALEKS, 30 points for each of the 14 Lab Exercises, and 5 points for each of 7 discussions. Four tests (Test 1, 2, 3, and the Final) are each 100-point ALEKS exercises. They will use questions like those in the ALEKS learning. The Laboratory Exercises in the Laboratory Module are a combination of eight Virtual Labs and six online labs created at Valencia. ALEKS, Connect (Virtual Labs) and the etext “Chemistry, The Molecular Nature of Matter and Change, 9th edition” by Silberberg are all McGraw-Hill products and are purchased bundled for $77. You will be asked to pay when you sign into ALEKS for the first time. The bundle is also available at the bookstore for $102.70 in the form of an access code that you use to sign in instead of paying online. The first time you enter ALEKS for online learning, enter from the ALEKS link in the ALEKS Module under Modules on the Canvas homepage for this class. This is where you will be charged $77 for ALEKS and the etext or use an access code you purchased from the bookstore. You will have the option of ordering a loose-leaf hard copy of the text for $39 when you sign in/register and after taking the Initial Knowledge Check. ALEKS offers 2 weeks of free access if you are unable to pay immediately. The first time you enter Virtual labs, enter it from Laboratory Module under Modules from the Canvas homepage by clicking the lab assignment. Use this access code for access to the McGraw Hill labs: MQ0E-V7Y6-STJ6-GJ71-99TQ. McGraw-Hill has supplied this access code because this is how they bundle the lab service with an ALEKS purchase. Late work on ALEKS objectives and late submissions of labs are allowed. Penalty for late work is 15% per week for labs and discussions. If you miss a test, your score will be zero. If your final score is higher than your lowest test score, the final score will replace the score for that test. However, no zeroes assigned for cheating are dropped. The final exam will be cumulative. The grade for the first lab, Lab Safety, will appear in Canvas as a quiz score. No makeup tests will be given. Do not use cell phones during tests. You earn 5 points for participation in each of the 7 discussions due during the first 7 weeks of the semester.

# Attendance/ Withdrawal

Students may withdraw at any time before the Withdrawal Deadline of March 26, 2021 and receive a grade of “W”. If you do not withdraw from the class before the Withdrawal Deadline, you will receive a letter grade at the end of the semester. This is an online class and attendance is not required at any certain time. However, if you do not make progress by completing and/or submitting assignments for two weeks, you will be withdrawn from the class.

# General suggestions

Chemistry involves learning skills. The material is cumulative, and if you get behind, catching up is difficult. Memorization will be held to a minimum. What you learn you will learn by working problems. It cannot be overemphasized: **do the work**. You must have or develop regular study habits to pass chemistry. ALEKS pays very close attention to significant figures so you should, too. The terms of this syllabus are subject to change, usually from correcting typos.

# Honesty/Plagiarism

It is cheating to show someone your quiz, test, homework, or lab work so that they may copy the work instead of doing it themselves. The primary penalty for cheating is lower grades due to not learning the material. However, additional penalties, from a score of zero for an assignment to a failing grade in the class will be assigned, depending on the situation.

Core Competencies
Think. You will analyze data and ideas, employ formulas and procedures, and draw and revise supported conclusions.
Value. You will recognize relevant information and manage work time.
Communicate. You will exchange ideas and information with others.
Act. You will responsibly set goals and reflectively solve problems, individually and in groups

# Office for Students with Disabilities

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students With Disabilities (OSD: West Campus, SSB, 103, 407.582.1523) and discuss specific needs with the professor, preferably during the first two weeks of class. Here is a link to the OSD website: <https://valenciacollege.edu/students/office-for-students-with-disabilities/> .

# Getting started

The first lab (Safety) and the first discussion (Introduction) are due during the first week of class on Saturday, Jan. 16. All assignments including the final exam are due on Saturdays at 11:59pm, except tests 1,2, and 3, which are due on Sundays. Please space out your work, as you cannot do all the assignments due on a Saturday in one session. The first lab due the first week of class is a Canvas Assignment. The second lab, Virtual Labs Tutorial, due on Jan. 23, will require you sign into Connect/Virtual Labs using the access code above. The Chapter 1 Objectives in ALEKS are due on Jan. 23 during the second week of classes. Sign in before then. You will be given a 50-question Initial Knowledge Check that will remove topics from the semester’s objectives when you answer correctly. The Knowledge Check will take at least two hours. Each Chapter Objective in ALEKS consists of about 20 topics that each require 20 or 30 minutes to complete.

You will get used to, and hopefully appreciate, the pace of the adaptive learning software ALEKS. ALEKS will ask you questions. If you get the answers right, it goes on to the next topic. If you have difficulties, the software shows you how to work the problem. The topics are also tied to sections of the extext. It’s a good strategy to read the text, then work the topics in the ALEKS Chapter Objective. Once an Objective due date has passed, ALEKS will move on to the next Chapter Objective. If you missed any topics, you can do late work at any time during the semester after you have completed the current ALEKS Chapter Objective. There are 15 weeks in the semester counting spring break. We do 11 ALEKS chapters and 14 labs. The only Saturday on which a lab is not due is during Spring Break on March 13. On that date, there is no ALEKS Chapter Objective due, as is the case in the first week and last weeks of class, and on Feb. 06 (allowing two weeks for the Chapter 3 Objective). Those are four Saturdays on which an ALEKS Chapter Objective is not due; on the other 11 Saturdays, an ALEKS Chapter Objective is due. That means that almost every Saturday, an ALEKS Chapter Objective and a lab are due. The Discussions are also due on Saturdays, one each week for the first 7 weeks of class. We need to hit the ground running. Make room in your schedule for 10-15 hours of chemistry work/study/learning every week.