

CHM 1045C - Spring 2020
GENERAL CHEMISTRY WITH QUALITATIVE ANALYSIS I
4 Credits

PREREQUISITES Minimum grade of C in either CHM 1025C or one year of high school chemistry; and MAC 1105 or high school algebra with a minimum grade of C.

PROFESSOR: **Dr. Anatoly Sobolevskiy**
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COURSE INFORMATION: Classroom lecture – Tuesday 4:00 pm – 6:45 pm, WC001 Room 132
Laboratory - Thursday 4:00 pm – 6:45 pm, AHC 309.
Course Description : A study of the basic principles of chemistry including chemical reactivity, atomic structure, chemical bonding, molecular geometry, periodicity, stoichiometry, and kinetic-molecular treatment of gases. Teaching style includes explanation of the course topics with practical problem solving at the blackboard, quizzes and homework problems review, preparation for tests, Laboratory illustrates principles discussed in classroom.
Drop/Refund Deadline: January 13, 2020 11:59 pm.

REQUIRED COURSE MATERIALS:

Each student should have the current version of all required materials.

Text: Chemistry 2e, Rice University. Available on-line <https://openstax.org>

Lab: General Chemistry I Laboratory Manual, Chemistry Department, Valencia College

Safety Equipment: EYE PROTECTION for Lab.
Sunglasses are not accepted. You must bring your eye protection to each lab period or you will not be permitted to do lab work.

ALL LAB WORK must be done during the scheduled lab time

EVALUATION:

3 tests	15% each
Labs	5% total
5 best quizzes	10 % total
Homework	3 % total
Lab Final Test	12% total
Final examination	25% total

Grading scale: A=90.0-100.0%, B=80.0-89.9%,
C=70.0-79.9%, D=60.0-69.9%, F<60.0%

COMPETENCIES: Four Valencia Student Core Competencies – **Think, Value, Communicate, and Act** - are integrated into this Course. You will be learning to analyse the scientific data, evaluate results, think about applying chemistry fundamental to solve practical problems, and effectively communicate in order to achieve the goals of this Course.

CLASSROOM POLICIES

ATTENDANCE: The student is expected to attend each class meeting. Attendance will be recorded at the beginning of class. **After three (3) absences a student should withdraw from the class or face the possibility that I will do for you.**

TESTING: **No make-up exams will be given.** If you miss class, you should contact the instructor to find out what was covered in class. **All exams and quizzes will be given at the beginning of the class.**

If you miss one or two exams, your final grade is substituted for the zero grades on the missed exams.

The final exams are for evaluation purposes only and they will not be returned or discussed.

The final examination and lab final exam may not be dropped or replaced.

If you do not take the lab exam you will be withdrawn from the course. You can not pass this course without doing the lab assignments (See Lab opening notes). All prelab assignments shall be done before the lab starts.

No make-up quizzes are given.

WITHDRAWAL

DEADLINE and POLICY:

A student who withdraws from class before **the college specified withdrawal deadline (March 20, 2020)** will receive a grade of “W.” The Now Show Reporting Period ends on January 26, 2018.

A faculty member is permitted to withdraw a student from the faculty member's class up to the beginning of the final exam period, for violation of the faculty member's attendance policy, as published in the faculty member's syllabus. A student is not permitted to withdraw from this class after the withdrawal deadline; if you remain in the class after the withdrawal deadline, you can only receive a grade of A, B, C, D, F or I. An I grade will only be assigned under extraordinary circumstances that occur near the end of the semester. If you receive an I, the work missed must be made

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up during the following semester, at which time you will get an A, B, C, D or F. Failure to make up the work during the following semester will result in you getting a grade of F in the course. Any student who withdraws from this class during a third or subsequent attempt in this course will be assigned a grade of "F."

COMMON COURTESY: *No food or drinks are allowed in the classroom or lab at any time.*
Students must be in a classroom on time and to prepare assignments for that particular class period.

HONESTY: Each student is expected to be in compliance with the college policy on academic honesty as set forth in the college catalog/student handbook.
The primary penalty for academic dishonesty is lower grades because you cannot learn chemistry if you don't do the assigned work.

SECURITY: We want to reassure you that college security officers are here around the clock to ensure the safety and security of the campus community. It's important to remain alert and aware of your surroundings, especially during the **early morning or evening hours. Remember that you can always call security for an escort if you feel uncomfortable walking alone on campus.** White security phones can also be found in many of our buildings; simply pick up the phone and security will answer.
Finally, report any suspicious persons to West Campus Security at 407-582-1000, 407-582-1030 (after-hours number) or by using the yellow emergency call boxes located on light poles in the parking lots and along walkways.

**FACULTY/STUDENT
COMMUNICATION:**

The communication method outside of contact hours is e-mail. Normally, the response for e-mail is within two business days.

Valencia College is committed to providing each student a quality educational experience. Faculty members have set high standards of instruction for themselves and for you. If you have a problem in a class, your first step is to talk to your instructor. If you are still dissatisfied, you may talk with the academic dean of the division for your class. We will work together to resolve any issues that arise.

**STUDENTS WITH
DISABILITIES:**

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. OSD determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, phone: 407-582-1523).

DISCLAIMER:

Changes in syllabus and/or schedule may be made at any time during the term by announcement of the professor.
A revised syllabus may be issued at the discretion of the professor.

You should obtain and learn to use a scientific calculator. The calculator will save you time while preparing assignments. You may use your calculator during exams in CHM 1045C. You may not share your calculator with another students taking an exam for any reason. If you calculator stops working during an exam, you must finish exam without it.

All exams will cover material from previous lectures, films, labs, homework.

TENTATIVE SCHEDULE
CHM 1045C GENERAL CHEMISTRY WITH QUALITATIVE ANALYSIS I

WEEK	LECTURE	LABORATORY
1	Chemistry: Matter and Measurement, Ch. 1	Intro, Safety
2	Atoms Molecules and Ions, Ch 2	Exp. 1 Mass, Volume, and Density
3	Composition of Substances and solutions, Ch 3	Exp. 1 Mass, Volume, and Density
4	Composition of Substances and solutions, Ch 3	Exp. 2 Empirical Formula
5	Test 1 Ch 1,2,3 Stoichiometry of Chemical Reaction, Ch 4	Exp. 3 Electrolytes and Nonelectrolytes
6	Stoichiometry of Chemical Reaction, Ch 4	Exp. 4 Limiting Reactant
7	Stoichiometry of Chemical Reaction, Ch 4	Exp. 5 Observation and classification of reactions
8	Thermochemistry, Ch. 5	Exp. 6 Amount of active ingredient in aspirin
9	Test 2 Ch 4,5 Electronic Structure and Periodic Properties of elements, Ch 6	Exp. 6 Amount of active ingredient in aspirin
10	Spring Brake	Spring Brake
11	Electronic Structure and Periodic Properties of elements, Ch 6	Exp. 8 Calorimetry
12	Chemical Bonding and Molecular geometry, Ch 7	Exp. 10 Dye Concentration Using UV-Vis, v2a
13	Chemical Bonding and Molecular geometry, Ch 7	Exp. 11 Molecular modeling
14	Test 3 Ch 6, 7 Advanced Theories of Covalent Bonding Ch. 8	Exp. 7 Analysis of gaseous products
15	Gases, Ch. 9	LAB PRACTICAL EXAM
16	FINAL EXAM	

