Chemistry in Everyday Life, CHM 1020, 3 Units

Science Department @ Valencia College, West Campus

Course Syllabus

Instructor: Dr. A. Tony Alabi, Ph. D. COURSE: CHM 1020 CRN: 11099

Office: AHS 307 Term: Fall 2020

E-mail: [aalabi@valenciacollege.edu](mailto:aalabi@valenciacollege.edu) Class Meeting: Online

Office Hours: By appointment

**Welcome to Chemistry in Everyday Life**

Chemistry in everyday life meets the general education requirement for non-science majors. The course includes the study of some basic concepts in inorganic chemistry, organic chemistry, and biochemistry. Students apply principles as they analyze, discuss, and make decisions on chemically related problems that affect everyday life. (Not a prerequisite for any other science course).

**Course Overview**

Science allows us to learn much about the natural world. Chemistry is one of the unique fields in science with a wide range of applications in medicine, chemical biology, material science, and environmental science. This course affords you the opportunity to understand science from chemist perspectives. The course introduces you to the atomic structure, chemical bonds, stoichiometry, organic chemistry, biochemistry, and polymers. Students will learn about acids and bases in our environment and oxidation-reduction reactions. To maximize learning outcomes, chapter PowerPoints, videos, lectures, group discussions, practice questions, and short papers will be incorporated in the course. Summary notes and announcements will be available to students via Canvas.

**Required Textbook**

**ISBN10: 0136638767 / ISBN13: 9780136638766 - Hill, Chemistry for Changing Times, 15e** ($52.24 net / $62.68 OLP)

**Course Prerequisite Knowledge**

This course has no prerequisite, and it is not a prerequisite for any other science course.

**Evaluation and Grading**

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| **Grading Scale** |
| 90 - 100% A |
| 80 - 89% B |
| 70 - 79% C |
| 60 - 69% D |
| 0 - 59% F |

**Grading Scale**

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| --- |
| **EXAMS 50%** |
| Exam 1 15%  Exam 2 10% |
| Exam 3 15%  Final Exam 10% |
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| **Mastering Assignments 20%** |
| **Discussion 10%** |
| **Science Projects 20%** |
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**Exams and Quizzes**

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Twelve Mastering assignments will be given during the semester. Four exams will be given during the semester. At the end of every unit, there will be an end of unit exam. The exams may include both multiple-choice questions and written responses. Exam 1 covers chapters 1 through 4, exam 2 covers chapters 5 through 8, and exam 3 covers chapters 9, 10, and 16. The final exam is cumulative and covers chapters 1 through 10 and 16. Science projects are mostly research writing assignments.

**Makeup Policy**

There is no makeup for mastering assignments, discussions, science projects, and exams. You will be given five days window to attempt the exams. Once you start the exam, you will have 90 minutes to complete it. Do not wait until the last moment to complete assignments, papers, and exams. All assignments have due dates. Be mindful of the due dates and plan your time accordingly.

**Attendance Policy**

Attendance and participation are essential for your success in this course! Students are expected to post weekly and respond to other learners' posts. You are expected to complete all assignments on or before the due dates. Logging into the course ***does NOT count as attendance.***Students would be dropped as a no-show **after the Drop deadline and during the No Show period** if they did not submit all the first week's due assignments.

**Student Disability Accommodations**

Contact the office of students with disabilities for any course-related accommodations.

*"Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class; accommodations will not be applied retroactively. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities."*

*West Campus SSB, Rm. 102 Phone: 407-582-1523 Fax: 407-582-1326*

**Withdrawal Deadline and Policy**

"A student who withdraws from the class before the **withdrawal deadline of October 30, 2020,** will receive a grade of "W." 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 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. The professor will not withdraw any student for any reason; it is the responsibility of the student to withdraw themselves before the withdrawal deadline and to be aware of the date of the withdrawal deadline."

**Student Help**

"*Valencia is committed to making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help that may assist them with psychological issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. Students have 24 hours unlimited access to the* ***BayCare Behavioral Health's confidential student assistance program*** *phone counseling services by calling* ***(800) 878-5470****. Three free confidential face-to-face counseling sessions are also available to students."* (Valencia Policy 4-07)

**Valencia College Core Competencies**

You will be given the opportunity to develop and practice four core competencies that define the learning outcomes for a successful Valencia graduate, as identified by faculty members. The four competencies are Think, Value, Communicate, and Act.

1. ***"Think****- think clearly, and creatively, analyze, synthesize, integrate and evaluate in the many domains of human inquiry*
2. ***Value****- make reasoned judgments and responsible commitments*
3. ***Communicate****- communicate with different audiences using varied means*
4. ***Act****- act purposefully, effectively, and responsibly."*

**Electronic Devices**

A computer with a webcam and fast Internet access is required for this course. Students must use a computer with reliable internet access because excuses or failure to complete assessments due to computer error will not be permitted.

**Rules of Student Behavior**

Be mindful of your language and respect other learners' views.

**Academic Honesty Statement**

Each student is required to follow Valencia's policy regarding academic honesty, as stated in the Student Code of Conduct. All forms of academic dishonesty (cheating, plagiarism, forgery, changing graded assignments) are prohibited. With the first occurrence of academic dishonesty, in any form, a student will receive a failing grade for that single assignment/assessment. Proof of a subsequent event of academic dishonesty will result in a failing grade in the class, along with a referral to the Dean of Science and the Dean of Students. Cheating includes but is not limited to copying text from a source without proper citation and copying assignments or exams from other students.

**Key to Success**

CHM 1020 is a course that requires you to understand and master fundamental chemistry concepts. You should be able to relate these concepts to your everyday life. To be successful, you need to read upcoming sections from your textbook, watch assigned videos, summarize key facts in videos and lecture PowerPoint slides, practice chapter problems, and ask clarifying questions. Review your notes weekly. Chemistry is fun, remember to have fun learning it.

**Important Dates to Remember**

08/31/20 Last day to drop and receive a refund, 11:59 p.m. deadline

10/30/20 Last day to withdraw and receive a "W" (refer to withdraw policy)

12/7 – 12/12/20 Online Final Exam

**MAJOR LEARNING OUTCOMES EXPECTED FROM STUDENTS WHO TAKE THIS COURSE**

1. Students will be familiar with the nature of scientific and scientific reasoning
2. Students will be able to recognize similarities and differences in the states of matter.
3. Students will be able to cite historical experiments and explain how they led to modern atomic theory.
4. Students will be able to write a ground-state electron configuration and explain it based on the quantum model.
5. Students will be able to recognize the different types of bonding (non-polar covalent, polar covalent and ionic)
6. Students will be familiar with ionic and covalent compounds.
7. Students will be able to draw Lewis dot structures with the use of VSEPR Theory and recognize simple geometrical shapes.
8. Students will be able to write balanced chemical equations.
9. Students will be able to perform mass/mass, volume/mass, molar/mass, and molar/volume calculations.
10. Students will be able to do simple gas law calculations and explain observations based on theory.
11. Students will be able to differentiate between an Arrhenius and Bronsted-Lowry acid/base.
12. Students will understand the difference between strong acids/bases and weak acids/bases. pH values will be included.
13. Students will be able to recognize what species has been oxidized or reduced.
14. Students will be familiar with simple organic compounds.
15. Students will be able to recognize functional groups with respect to organic chemistry.
16. Students will be able to recognize monomers and polymers and know of historically important ones.
17. Students will be able to recognize and understand the importance of carbohydrates.
18. Students will be able to recognize and understand the importance of proteins.
19. Students will be able to recognize and understand the importance of the 20 amino acids in the Human Genome.
20. Students will be able to recognize the four structures of proteins (Primary, secondary, tertiary, and quaternary).

**College Policies, Procedures, and other References**

●A full description of all College policies can be found in the College Catalog at

<http://www.valenciacollege.edu/catalog/>

●Information about maintaining satisfactory academic progress can be found at

<http://valenciacollege.edu/finaid/satisfactory_progress.cfm>

●The Student Handbook can be found at

[**http://valenciacollege.edu/pdf/student-handbook.pdf**](http://valenciacollege.edu/pdf/student-handbook.pdf)

●The Policy Manual can be found at

<http://valenciacollege.edu/generalcounsel>

●The college calendar can be found at

<http://valenciacollege.edu/calendar>

●Information about the Office for Students with Disabilities can be found at <http://valenciacollege.edu/osd/CurrentStudents.cfm>

●The final exam schedule can be found at

<http://valenciacollege.edu/calendar/FinalExam.cfm>

●Information about Valencia's Skillshop which offers a variety of topics on student success and goals can be found at <http://valenciacollege.edu/studentservices/skillshops.cfm>

**Disclaimer**

This syllabus is subject to change as needed, and changes will be announced in Canvas in a timely manner. Your continued participation in this course after the drop-add deadline period constitutes an agreement with and an acceptance of the conditions presented in this syllabus*.* Students are responsible for announcements made in Canvas.