General Chemistry with Qualitative Analysis I, CHM 1045C, 4 Units

Science Department @ Valencia College, West Campus

Course Syllabus

Instructor: A. Tony Alabi, PhD. COURSE: CHM 1045C CRN: 34095

Office: AHS 307 Term: Summer 2018

E-mail: [aalabi@valenciacollege.edu](mailto:aalabi@valenciacollege.edu) Class Meeting: Mon. and Wed. 2:00 – 5:40 pm

Office Hours: By appointment Class Location: Building 3, Room 214

Lab Meeting: Mon. and Wed 6:00 – 9:40 pm Lab Location: AHS Building, Room 304

**Welcome to General Chemistry with Qualitative Analysis I**

**About the Course**

* **Prerequisites**: CHM 1025C or one year of High School chemistry with a minimum grade of C; and honors high school Algebra II or MAT 1105.
* **Catalogue Description of the Course**: 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. The laboratory illustrates principles discussed in the classroom.

**Course Overview**

Science allows us to learn much about the natural world. This course affords you the opportunity to understand science from chemist perspective. The course introduces students to scientific method, measurement, matter, atomic theory, periodicity, characteristics of chemical bonding, behavior of gases, thermochemistry, quantum mechanics theory, and laboratory techniques. To maximize students’ learning outcomes, lectures, chemical modelling, in-class group problem solving, and exit questions will be incorporated in the course. Summary notes and announcement will be available to students via Canvas.

**Required Text:**

Chemistry – A Molecular Approach, Volume 1, Custom Edition for Valencia College by Nivaldo J. Tro

ISBN #: 1-269-39645-5

**Laboratory Manual:**

CHM 1045C General Chemistry I Laboratory Manual, 3rd edition, Valencia College: Lake Nona Campus & West Campus. Laboratory manual. Download a free copy online at <http://science.valenciacollege.edu/chemistry/chemistry-labs.html#secondOption>

Also accessible through link included in Canvas.

Laboratory coat is required and it is available for purchase at the bookstore.

**Supplemental Materials:** Additional materials will be available in Canvas.

**Evaluation and Grading**

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

**Point Distribution and Grades**

|  |  |
| --- | --- |
|  | **Percent of Total Grade** |
| Three Exams | 50% |
| Three Homework Assignments | 15% |
| Nine Experiments | 25% |
| Class Participation | 10% |
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**Exams and Homework**

Three homework assignments and three exams will be given during the semester. Homework and exams may include both multiple choice and written responses. Homework 1 and exam 1 will cover materials from chapters 1 -3, homework 2 and exam 2 will cover materials from chapters 4 – 6, and homework 3 and final exam will cover materials from chapters 7 – 10.

**Make-up Policy**

No make up for homework assignments and exams. Make up exam will only be granted at the discretion and convenience of the instructor for college approved excuses. Prior authorization and appropriate documentation are required for make-up exam.

**Attendance and Tardy Policy**

Attendance and participation are essential for your success in this course! Students are expected to be in class and ready to learn at 2:00 pm. For any unexcused absence, student will lose all the points associated with in-class participation and exam given that day. Tardiness will result in a 1.0 point deduction from that day’s participation points. Leaving early will also result in a 1.0 point deduction from that day’s participation points. Texting and using the phone during class will result in 2.5 points deduction from that day’s participation points.

**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 class before the **withdrawal deadline of July 6, 2018** 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 competences that define the learning outcomes for a successful Valencia graduate as identified by faculty members. The four competences 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**

When applicable, the use of electronic devices is strictly limited to course related information. Students must request a written permission via e-mail prior to taking photos or recording of any kind during any given lecture of CHM 1045C.

**Student Code of Conduct**

Students are expected to be in class ready to learn at 2:00 pm. Students are expected to work individually and as part of a group during in-class discussions and assignments. All cell phone ringers should be set to off during class time. Students may not keep their cell phones on their desks. Food consumption is not permitted in class. Students who engage in any prohibited or unlawful acts that result in the disruption of a class will be directed to leave the class. Violations of any classroom or Valencia rules may lead to disciplinary actions up to and including expulsion from Valencia.

**Alternative Arrangements for Pregnant Students**

*The laboratory environment often times will involve the use of and/or exposure to chemicals or other hazardous substances/equipment.  If you are pregnant or plan on becoming pregnant during this course and are concerned about your exposure to these chemicals or hazardous substances/equipment, please see your instructor to discuss possible alternative arrangements.  Students are also invited to contact Mr. Ryan Kane, Title IX Coordinator/Equal Opportunity Officer, 407-582-3421,* [*rkane8@valenciacollege.edu*](https://webmail.valenciacollege.edu/OWA/redir.aspx?SURL=LB9zMvs8LLQOnzTY3yLQe1RDL5P-ds6YJXujFmFPNr_uURndXKDSCG0AYQBpAGwAdABvADoAcgBrAGEAbgBlADgAQAB2AGEAbABlAG4AYwBpAGEAYwBvAGwAbABlAGcAZQAuAGUAZAB1AA..&URL=mailto:rkane8@valenciacollege.edu)*, regarding requests for alternative arrangements relating to pregnancy.*

**Academic Honesty Statement**

Each student is required to follow Valencia 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 of a source without proper citation, and copying assignments (home works, prelab, and lab reports) or exam from other students.

**Key to Success**

CHM 1045C is a course that requires you to understand, master the materials, and be able to apply them. To be successful, you need to read upcoming sections from your textbook prior to attending lectures, take notes, practice chapter problems, and ask clarifying questions. Chemistry is fun, remember to have fun learning it.

**Important Dates to Remember**

07/04/18 Independence Day holiday

07/06/18 Last day to withdraw and receive a “W” (refer to withdraw policy)

07/30/18 Final Exam, 2:00 – 3:30 pm

**Major course learning outcomes:** Student will be able to:

* **Understand the nature of units of measurement and apply proper significant figures rules.**
* **Understand the nature of matter and its underlying physical and chemical characteristics.**
* **Understand design of current periodic table and apply order/trends with relation to properties of elements.**
* **Understand/apply principles of atomic structure theory with relation to observed chemical and physical properties.**
* **Understand the nature and characteristics of a chemical bond.**
* **Understand/apply the rules of nomenclature and underlying chemical quantities related to chemical compounds.**
* **Understand factors influencing chemical reactivity and quantitative relationships of species involved in a reaction.**
* **Understand and apply the relationships of physical behavior of gases.**
* **Understand relationship between temperature, energy and heat with respect to thermal changes.**
* **Understand the relevance of quantum mechanics theory to the fundamental nature of light and spectroscopic data.**
* **Understand the nature of molecular geometry as it relates to physical and chemical properties of molecules.**
* **Enhance student’s understanding of the application of the scientific method to solve complex problems.**
* **Employ conceptual learning outcomes and perform essential lab techniques in laboratory setting.**

**Class and Laboratory Schedule**



**Disclaimer**

This syllabus may be modified at the discretion of the professor at any time during the course. Students are responsible for announcement made during lectures and/or online via blackboard.