

Division of Natural Sciences and Geology

Department of Chemistry http://learning.hccs.edu/programs/chemistry

CHEM 1311: General Chemistry I| Lecture | 11752

Fall 2019 | 16 Weeks (08/26/2019 – 12/15/2019) In-Person | North East College | Mon/Wed 6:00 pm – 7:20 pm 3-hour Lecture course | 48 hours per semester

Instructor Contact Information

Professor:	Eddie Marbley, M.S., J.D.	Contact Number:	832-370-3987
Office Hours:	By Appointment Only	Office Location:	Northeast College Faculty Area
HCC Email:	eddie.marbley@hccs.edu		

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear your concerns and to discuss course topics.

Instructor's Preferred Method of Communication

My preferred method of communication is via email. I will do my best to respond to emails within 48 hours Monday through Friday; I will reply to weekend messages on Monday mornings.

What's Exciting About This Course

The exciting thing about this course is that not only will you learn chemistry concepts and its unique nomenclature, but you will learn how this course is relevant to corporate America and its application to the environment in which we live.

My Personal Welcome

Welcome to the fascinating world of chemistry, it is a pleasure to have you enrolled in my class this semester.

Prerequisites and/or Co-Requisites

This course requires college-level reading and writing skills. Research indicates that you are most likely to succeed if you have already taken and passed Reading 0342, Math 0312 and

Writing 0310 / 0349 or Math 0312 with INRW 0420. For this course, additional prerequisites are completion of one year of high school chemistry or CHEM 1305 (Introduction to Chemistry) and MATH 1314 (College Algebra). Other minimum requirements for enrollment in CHEM 1311 include placement in college-level reading (or take INRW 0420). It is also highly recommended to take the corresponding lab, CHEM 1111 with CHEM 1311. If you have enrolled in this course having satisfied these prerequisites, you have a higher chance of success than students who have not done so. Please carefully read and consider the repeater policy in the Student Handbook.

Please carefully read and consider the repeater policy in the <u>HCCS Student Handbook.</u>

Eagle Online Canvas Learning Management System

This course will not use (<u>Eagle Online Canvas</u> (<u>https://eagleonline.hccs.edu</u>) to supplement in-class assignments, exams, and activities.

HCCS Open Lab locations may be used to access the Internet and Eagle Online Canvas. It is recommended that you **USE <u>FIREFOX</u> OR <u>CHROME</u> AS YOUR BROWSER**.

HCC Online Information and Policies

Here is the link to information about HCC Online classes including the required Online Orientation for all fully online classes: <u>http://www.hccs.edu/online/</u>

Instructional Materials

Textbook and Course Materials Required

a.



Chemistry 12th Edition By Raymond Chang and Kenneth Goldsby

ISBN 978-0-07-802151-0

Tutoring

HCC provides free, confidential, and convenient academic support to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the <u>HCC Tutoring Services</u> website for details.

Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at http://library.hccs.edu.

Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peerassisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at <u>http://www.hccs.edu/resources-for/current-students/supplemental-instruction/</u>.

Course Overview

This course is intended for students majoring in one of the physical sciences or life sciences, engineering, or for students who are pursuing pre-professional programs in medicine, dentistry, pharmacy, veterinary medicine, or other health programs. The course is also beneficial to students who are preparing themselves for higher level science courses in their respective curricula. Core curriculum course.

Science and engineering majors study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. The laboratory includes appropriate experiments.

Core Curriculum Learning Objectives (CCLOs)

The HCCS Chemistry Discipline Committee has specified that the course address the following core objectives:

- Reading/ Writing
- Speaking/Listening
- Critical Thinking
- Computer/Information Literacy

Program Student Learning Outcomes (PSLOs) for all CHEM Courses

Can be found at http://learning.hccs.edu/programs/chemistry

Course Student Learning Outcomes (CSLOs) for CHEM 1311

SLO 1. Give names and formulas of elements, ions, and ionic and molecular compounds.

SLO 2. Categorize, complete, and balance chemical reactions.

SLO 3. Do chemistry calculations involving reaction stoichiometry and energy changes.

SLO 4. Relate the properties of electromagnetic radiation (frequency, wavelength, and energy) to each other and to the energy changes atoms undergo which accompany electronic transitions.

SLO 5. Identify the parts of the periodic table and the trends in periodic properties of atoms. SLO 6. Relate the properties of gases with the gas laws and extend the application of these relationships to reaction stoichiometry, gas mixtures, and effusion/diffusion of gases. SLO 7. Depict chemical bonding with dot structures and valence bond theory and determine the molecular shapes (geometry) of molecules based on VSEPR and valence bond theory. LO 8: Calculate density and relate the value to mass and volume measurements for all physical states.

SLO 9: Covert measurements in Metric, SI, and American systems

SLO 10: Apply thermochemical principles to evaluate work, heat, and energy relationships based on specific heat, calorimetry, and temperature changes.

Learning Objectives for each CSLO can be found at <u>Learning Objectives for CHEM 1311</u>.

Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as your guide.

Instructor and Student Responsibilities

As your Instructor, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through class activities, discussions, and lectures
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness and make up

- Provide the course outline and class calendar which will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

To be successful in this class, it is the student's responsibility to:

- Attend class and participate in class discussions and activities
- Read and comprehend the textbook and instructor notes
- Complete the required assignments and exams
- Practice problems
- Ask for help in a timely manner when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Keep up with your grades which will be posted in the Canvas Gradebook
- Attain a raw score of at least 70% on all assignments
- Take the final exam during the designated testing period
- Be aware of and comply with academic honesty policies in the HCCS Student Handbook

Assignments, Exams, and Activities

Written Assignment

Written assignments will be in the form of practice problems assigned per chapter in which the student is to complete. These practice problems are highly beneficial and indeed essential to learning chemistry.

Exams

Exams will consist of three non-cumulative regular exams plus a comprehensive final. Makeup exams will normally not be given, so make every effort to take the exams on their scheduled dates. In the event that you must miss one and only one regular exam, the final exam grade may be substituted for the missed exam upon approval of the Professor. Keep in mind that the comprehensive final exam is usually more difficult than the regular exam (meaning that it will cover all material from the entire semester).

In-Class Activities

These include student participation when called upon, problem solving, quizzes, and special projects when assigned. Class participation points will be given and serve as extra credit.

Final Exam

A comprehensive departmental final exam will be given. This exam will consist of one section of multiple-choice questions and one section of problems for you to work out.

You must get at least 50% (50 of 100) of the items correct on the final to pass the course (departmental decision). Students who are absent from the final exam without discussing their absence with the Professor in advance or within 24 hours afterward will receive a course grade of Incomplete.

Grading Formula

Three regular exams60%In-Class Activities15%Departmental Final Exam25%

Grade	Final	
	Average	
А	90 - 100	
В	80 - 89	
С	70 - 79	
D	60 - 69	
F	< 60	

HCC Grading Scale can be found on this site under Academic Information: http://www.hccs.edu/resources-for/current-students/student-handbook/

Course Calendar

Week	Dates	Topics	
		Syllabus	
1			
		Chapter 1: The Study of Change	
2		Chapter 2: Atoms, Molecules, and Ions	
3		Chapter 3: Mass Relationships in Chemical Reactions	
4		Exam I	
5		Chapter 4: Reactions in Aqueous Solutions	
6		Chapter 5: Gases	
7		Chapter 6: Thermochemistry	
8		Chapter 7: Quantum Theory and the Electronic Structure	
9		Exam 2	
10		Chapter 8: Periodic Relationships Among the Elements	
11		Chapter 9: Chemical Bonding I: Basic Concepts	
12		Chapter 10: Chemical Bonding II: Molecular Geometry	
13		Chapter 11: Intermolecular Forces and Liquids	
14		Exam 3	
15		Final Exam Review	
16		Final Exam	

Syllabus Modifications

The Professor reserves the right to modify the syllabus at any time during the semester and will notify students of changes.

Instructor's Practices and Procedures

Missed Assignments

The Professor does not allow for missed assignments. The student is still responsible for the information contained in any missed assignment.

Academic Integrity

Students are responsible for conducting themselves with honor and integrity inf fulfilling course requirements. Disciplinary proceedings may be initiated by the college system against a student accused of scholastic dishonesty. Penalties can include a grade of "0" or "F" on the particular assignment, failure in the course, academic probation, or even dismissal from the college. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance): http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/

Attendance Procedures

The HCC attendance policy is stated in the Schedule of Classes. Students are expected to attend classes regularly. Students are responsible for materials covered during their absence, and it is the student's responsibility to advise the Professor when their will be an extended absence due to a medical condition, travel for death in the family, and the like. Class attendance is recorded daily through the use of a Sign-In sheet. Although it is the responsibility to drop a student to drop a course for non-attendance, the Professor has full authority to drop a student for excessive absences. A student may be dropped from a course for excessive absences after the student has accumulated absences in excess of 12.5% of the hours of instruction. If circumstances prevent you from regularly attending classes, please inform the Professor immediately.

Student Conduct

Students are expected to be respectful at all times and to conduct themselves as aspiring professionals attending an institution of higher learning.

Electronic Devices

Electronic recording devices can be used in class upon authorization from the Pro

Chemistry Program Information

Please visit the chemistry program page for more about our degree offering, requirements, employment prospects and more. <u>http://learning.hccs.edu/programs/chemistry</u>

Add program-specific information such as the following:

- Chemistry Majors
- Careers in chemistry
- HCC chemistry student organizations
- Chemistry Scholarships

Provide details for each or include links to the information

HCC Policies

Here's the link to the HCC Student Handbook <u>http://www.hccs.edu/resources-for/current-students/student-handbook/</u> In it you will find information about the following:

Academic Information	Incomplete Grades
Academic Support	International Student Services
Attendance, Repeating Courses, and	Health Awareness
Withdrawal	
Career Planning and Job Search	Libraries/Bookstore
Childcare	Police Services & Campus Safety
Disability Support Services	Student Life at HCC
Electronic Devices	Student Rights and Responsibilities
Equal Educational Opportunity	Student Services
Financial Aid TV (FATV)	Testing
General Student Complaints	Transfer Planning
Grade of FX	Veteran Services

EGLS³

The EGLS³ (Evaluation for Greater Learning Student Survey System) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS³ surveys are only available for the Fall and Spring semesters. -EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/

Campus Carry Link

Here's the link to the HCC information about Campus Carry: http://www.hccs.edu/departments/police/campus-carry/

HCC Email Policy

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID and activate it now. You may also use Canvas Inbox to communicate.

Housing and Food Assistance for Students

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

Office of Institutional Equity

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (<u>http://www.hccs.edu/departments/institutional-equity/</u>)

Disability Services

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to http://www.hccs.edu/support-services/disability-services/

Title IX

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross Director EEO/Compliance Office of Institutional Equity & Diversity 3100 Main (713) 718-8271 Houston, TX 77266-7517 or <u>Institutional.Equity@hccs.edu</u> http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/

Office of the Dean of Students

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/studentcomplaints/speak-with-the-dean-of-students/

Department Chair Contact Information

Chemistry Department Chair

If you have questions or concerns about the course, please see your instructor. Should you wish to contact the department chair, below is his information:

Dr. Emmanuel Ewane, emmanuel.ewane@hccs.edu; 713 718-5414