



## Division of Natural Sciences and Geology

### Department of Chemistry

<http://learning.hccs.edu/programs/chemistry>

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## **CHEM 1111: General Chemistry I | Lab | #14970**

Spring 2020 | 16 Weeks (1.21.2020 - 5.17.2020)

In-Person | Stafford Scarcella Center Rm S109 | T 6pm-8:50 p.m

3-hour Lab course | 48 hours per semester

### Instructor Contact Information

Instructor:	Adetoun Oyinlola, Ph.D.	Office Phone:	713-718-6757
Office:	STF Campus	Office Hours:	Email for appointment
HCC Email:	adetoun.oyinlola@hccs.edu	Office Location:	STF- Faculty Area

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 just to discuss course topics.

### Instructor's Preferred Method of Communication

I will respond to emails within 24 hours Monday through Friday; I will reply to weekend messages on Monday mornings. Your HCC email address is the preferred method of contact. Should you want to contact me, use your HCC student email address.

### What's Exciting About This Course

Chemistry is known as the central science, In this lab, you will have hands on all laboratory experiments. You will learn how some chemical reactions react in some certain ways and many more to explore in this lab.

### My Personal Welcome

Welcome to Chemistry Lab—I am delighted that you have chosen this lab. One of my passions is to inspire students' creativity, develop their critical thinking ability and prepare them for the complex world they will face after stepping off campus. I can hardly wait to pass that on. I will present the information in the most exciting way I know, so that you can grasp the concepts and apply them now and hopefully throughout your life. As you read and wrestle with new ideas and facts that may challenge you, I am available to support you. The fastest way to reach me is by my HCC email. The best way to really discuss issues is in person and I'm available during posted office hours to tackle any questions you might have. My goal is for you to walk out of the course with a better understanding of yourself and of human behavior. So please visit me or contact me whenever you have a question.

## 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 lecture, CHEM 1311 with CHEM 1111. 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 [HCCS Student Handbook](#).

## Eagle Online Canvas Learning Management System

This course will use ([Eagle Online Canvas \(https://eagleonline.hccs.edu\)](https://eagleonline.hccs.edu)) will use [Eagle Online Canvas \(https://eagleonline.hccs.edu\)](https://eagleonline.hccs.edu) 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 FIREFOX OR CHROME 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: <http://www.hccs.edu/online/>

### *Scoring Rubrics, Sample Assignments, etc.*

Look in Eagle Online Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. <https://eagleonline.hccs.edu/login/ldap>

## Instructional Materials

### 1. Lab manual

Available at [HCC Bookstore](#)

*CHEM 1111 General Chemistry I* Pearson: ISBN-9781323961810

2. A Nonprogrammable scientific

3. Lab Coat

## Other Instructional Resource

### *Tutoring*

HCC provides free, confidential, and convenient academic support to HCC students in an on-line environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the [HCC Tutoring Services](#) 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 peer-assisted 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 <http://www.hccs.edu/resources-for/current-students/supplemental-instruction/>.

## Course Overview

CHEM 1111 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.

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 Outcomes (CCLOs)

The HCCS Chemistry Discipline Committee has specified that the course address the following core objectives: <<**To be modified in spring 2019, update accordingly**>>

- 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 1111**

SLO1. Learn Proper Safety Practice and Measures in the chemistry laboratory.  
SLO2. Practice Basic Lab Techniques of Measurement and Conversion  
SLO3: Perform separation of mixtures using proper technique  
SLO4: Identify physical properties  
SLO5: Observe various chemical reactions and write supporting chemical equations  
SLO6: Calculate empirical and molecular formulas and reaction yield  
SLO 7: Apply thermochemical principles to evaluate energy relationships based on specific heat, calorimetry, and temperature changes.  
SLO 8. 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.  
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SLO6: Calculate empirical and molecular formulas and reaction yield  
SLO 7: Apply thermochemical principles to evaluate energy relationships based on specific heat, calorimetry, and temperature changes.  
SLO 8. 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 9. 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.

Learning Objectives for each CSLO can be found at [Learning Objectives for CHEM 1111](#).

## **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 "online" 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**

Lab report are due at the time instructed by the professor. This include both pre & post lab for each experiment.

### **Exams**

The overall course average is determined as follows:

Final Practical lab exam\*\* 20%

Lab Experiment\*\*80%

### **In-Class Activities**

All students are expected to be present in the lab to perform their laboratory experiment. Pop-up quiz may be given at instruction discretion.

### **Grading Formula**

The chemistry department strongly recommends that you adopt a points-based grading system with a maximum 1,000 total points possible.

<b>Grade</b>	<b>Total Points</b>
A	900+
B	800-899
C	700-799
D	600-699
F	<600

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

## Course Calendar

<b>Week</b>	<b>Dates</b>	<b>Topic/What's due</b>
1	1/21	Safety
2	1/28	EXPERIMENT 2: Basic Laboratory techniques
3	2/4	EXPERIMENT 3: Identification of substances by physical properties
4	2/11	EXPERIMENT 4: Separation of the components of a mixture
5	2/18	EXPERIMENT 5: Chemical Reactions
6	2/25	EXPERIMENT 6: Chemical Formula
7	3/3	EXPERIMENT 7: Chemical reactions of copper and percent yield
8	3/10	EXPERIMENT 8: Gravimetric analysis of a chloride salt
9	3/24	EXPERIMENT 9: Solubility and the effect of temperature on Solubility
10	3/31	EXPERIMENT 10: Molecular Geometries of covalent molecules: lewis structures and the VSEPR Model
11	4/07	EXPERIMENT 11: Behavior of Gases: Molar mass of a vapor

12	4/14	EXPERIMENT 12: Activity Series
13	4/21	EXPERIMENT 13: Reactions in aqueous solution: Metathesis reaction and net ionic equations
14	4/28	EXPERIMENT 14: Heat of neutralization
15	5/5	EXPERIMENT 15: Titration of acids and bases
16	5/12	CLEAN UP

### ***Syllabus Modifications***

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

## **Instructor's Practices and Procedures**

### ***Missed Assignments***

There is no make-up lab.

### ***Academic Integrity***

Academic dishonesty, which includes but is not limited to, plagiarism, copying, sharing exam information or communicating during an exam, or using unauthorized electronic devices during exams, will not be tolerated. Penalties can include a grade of "0" or "F" on the particular assignment or disciplinary action as determined by rules of the college and are subject to the discretion and judgment of the instructor. You are expected to be familiar with the University's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion. There is a **Zero tolerance** for any type of academic dishonesty.

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***

This is a lab so attendance is a must and students are responsible for completing all pre-lab before coming in for any lab.

### ***Student Conduct***

You should be in your best behavior, any student who does not follow instructions will face the consequences for disruptive behavior.

### ***Instructor's Course-Specific Information (As Needed)***

All lab reports will be graded and given back to students after it is been completed.

### ***Electronic Devices***

Electronic devices are not permitted. Chemistry Program Information

## **Chemistry Program Information**

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

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 <http://www.hccs.edu/resources-for/current-students/student-handbook/> In it you will find information about the following:

Academic Information	Incomplete Grades
Academic Support	International Student Services
Attendance, Repeating Courses, and Withdrawal	Health Awareness
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



### ***EGLS<sup>3</sup>***

The EGLS<sup>3</sup> ([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. EGLS<sup>3</sup> 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 (<http://www.hccs.edu/departments/institutional-equity/>)

### ***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 [Institutional.Equity@hccs.edu](mailto:Institutional.Equity@hccs.edu)  
<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/student-complaints/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](mailto:emmanuel.ewane@hccs.edu); 713-718-5414**

