



**Division of Natural Sciences and Geology**

**Department of Chemistry**

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

---

**CHEM 1111: General Chemistry I | Lab | #13357**

Summer II 2019 | 5 Weeks (7.8.2019 - 8.11.2019)

In-Person | Missouri City Campus Rm 202 | MWF 8 a.m – 11:02 a.m.

3-hour lab | 48 hours per semester

**Instructor Contact Information**

Instructor: Adetoun Oyinlola, Ph.D.  
Office: MO- campus  
HCC Email: [adetoun.oyinlola@hccs.edu](mailto:adetoun.oyinlola@hccs.edu)

Office Phone: 713-718-6757  
Office Hours: Email for appointment.  
Office Location: MO 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. I will respond to emails within 24 hours Monday through Friday; I will reply to weekend messages on Monday mornings.

**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**

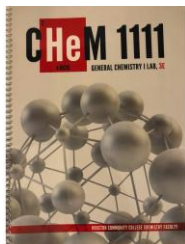
This course requires college-level reading and writing skills. Research indicates that you are most likely to succeed if you have already taken and passed Reading 0342, Math 0312 and Writing 0310 / 0349 or Math 0312 with INRW 0420. For this course, additional prerequisites are completion of one year 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](#).

## Instructional Materials

### 1. Lab manual



Available at [HCC Bookstore](#)

*CHEM 1111 General Chemistry I* 3<sup>rd</sup> Edition. by HCC Chemistry Faculty; Blue Door Publishing (2018) ISBN-13: 978-1-68135-811-6

2. A Nonprogrammable scientific

3. Lab Coat

## Other Instructional Resources

### **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 [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:

- 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.

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.  
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

### Exams

The overall course average is determined as follows:

Four test\*\* 40%

Lab Experiment\*\*60%

Extra credit 3%

HCC does not provide students with Scantron forms. They are sold in campus bookstores.

### In-Class Activities

Students should expect pop-up quizzes during class, projects, etc.

### Grading Formula

Grade	Total Points
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

Week	Dates	Topic/What's due
1	7/8/19 7/10/19 7/12/19	Safety Exp 2: Measuring Techniques and Calculations Exp 3: Separation of the Components of a Mixture
2	7/15/19 7/17/19 7/17/19	Test 1 Exp 4: Formula of a Hydrate and % of Water of Hydration Exp 5: Iron Copper Molar Ratio, Limiting Reagent
3	7/22/19 7/24/19 7/26/19	Test 2 Exp 6: Double Displacement Rxns: Rxn of Aqueous Solutions Exp 7: Single Displacement Rxns: Rxns of Metals Activity Series
4	7/29/19 7/31/19 8/2/19	Test 3 Exp 8: Ideal Gas Law: Dtm of Molec. Mass of a volatile Cpd Exp 9: Heat of Acid-Base Neutralization

5	8/5/19	Exp 10: VSEPR Theory of Molecular Geometry
	8/7/19	Test 4
	8/9/19	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***

Students are responsible to attend all laboratory experiments. Laboratory experiments cannot be repeated. Grades will not be given for missed lab work and a partial grade if pre-lab and post lab are completed.

### ***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

See the link below for details.

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***

Students are responsible to attend all laboratory experiments. Laboratory experiments cannot be repeated.

## Student Conduct

Students are expected to be respectful and of be of good behavior. Any student who violate the rules will face the consequences for disruptive behavior.

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

On the first day of lab a safety video will be shown (about 35 min long) and a safety "quiz" will be given and reviewed. Each student will then sign a statement affirming his or her commitment to following safe procedures in the laboratory and turn the form in to the instructor. You should be especially aware of the need for adequate *eye protection* in the laboratory. Glasses or goggles must be worn at all times during the laboratory period.

Any student *not* wearing glasses or goggles after the experiment has begun may be given a *zero* for that experiment! Experiments will be performed in groups of up to three students each. Before you leave the lab, be sure to show me your report so I can review and initial it. Each student should arrive at the lab *on time*, with his or her lab manual, or a Xerox of the report sheet *and* the procedure if you are in a financial bind. Laboratory reports are due on or before the next lab experiment.

Each report must be done individually, but of course you can work with your lab partners on it. If you are not sure about a calculation or a particular section, ask me about it! Each report will be graded on a 100-point basis. Come to lab prepared. Read through the experiment beforehand and review the pre-lab questions in the lab manual. You will be much better organized when doing the experiments, and your laboratory experience will be much more rewarding!

## 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. -EGLS<sup>3</sup> 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

