

Hudson County Community College

College Chemistry I, CHP 111

Credits: 4

Course: CHP – 111

Course Title: College Chemistry I

Instructor:

Day(s) and Time (s):

Location

Office Hours:

Office Location:

Email:

Course Description: This course is an introduction to common physical and chemical properties of substances and solutions. Topics cover scientific measurements and SI units, atomic structure and the periodic table, inorganic nomenclature, gas laws, chemical stoichiometry, chemical bonding, molecular geometry and polarity, thermochemistry, liquid properties, cubic crystals, and solutions. Laboratory work illustrates common lab techniques as well as chemical principles.

Lab: You MAY NOT make-up a lab experiment missed. Five lab reports will be graded. Lab reports may not be handwritten. Lab reports should be submitted individually.

Each lab report must have:

- Cover page which includes: The experiment name.
- Introduction/ Background
- Data and calculation (submit the page from your lab manual)
- Conclusion

Course Prerequisite: Take MAT-100 and MAT-106 (Take either previously or concurrently).

Student Learning Outcome:

Upon completion of this course you should be able to:

- Define properties of matter
- Perform conversions of units and dimensional analysis
- Discuss atomic structure, chemical bonds, molecules and ions
- Name inorganic compounds
- Balance chemical equations and perform calculations (stoichiometry)
- Discuss aqueous reactions (precipitation, acid-base, oxidation-reduction)
- Explain laws of thermochemistry
- Define characteristics of gases and gas laws
- Describe molecular geometry

Apply proficient laboratory skills:

- *select proper sample size, equipment size, and experimental setup*
- *correctly use laboratory equipment;*
- *apply lecture concepts in the laboratory*

Textbook:

“*Chemistry: The Central science*” 13th Edition, Prentice Hall Publishing

Author(s): Theodore L. Brown; H. Eugene LeMay; Bruce E. Bursten; Catherine J. Murphy; Patrick M. Woodward; Matthew W. Stoltzfus

ISBN-13: 978-0-321-91041-7

Lab Manual specific to CHP-111 (available at book store)

Book Purchase:

Since we use the book and lab manual extensively in and out of the class, you must buy them before our second meeting. In case you need to wait for the book voucher, it is your responsibility to find a way to make copies of the readings assigned from the books. Any student who has true financial need is eligible to apply for a book scholarship through the Office of the Dean of Students located at 70 Sip Avenue.

Attendance:

The college policy is generally that a student may fail a course due to lack of attendance if s/he missed more than 6 hours of instructional time for a 3-credit course.

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|------------------------|---------------------|-----------|
| Grading Policy: | Three exams | 75 points |
| | Quizzes | 5 points |
| | Lab | 10 points |
| | Home works | 5 points |
| | Class Participation | 5 points |

You are required to attend all classes even if you get A in first two tests.

Breakdown of Grading:

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|--------------|--------------|
| 100 - 94 = A | 69 - 64 = C+ |
| 93 - 90 = A- | 63 - 54 = C |
| 89 - 84 = B+ | 53 - 50 = D |
| 83 - 75 = B | Below 50 = F |
| 74 - 70 = B- | |

Safety in the Lab: Students are required to read the laboratory safety rules, ask any question they may have, sign and return the bottom part of safety rule sheet.

NO EATING or DRINKING in the lab.

I do not wish to see even any closed soda, juice, coffee, tea on the desk while we are in the chemistry lab.

Cell Phone Use Policy:

Cell phones should be on manner mode. In case of emergency, notify me and then leave. Leaving classroom for non-emergency calls will result a zero grade in one test. **NO texting during lectures or exams!** Cell phones may **NOT** be used during exams

Mandatory Use of HCCC Email Address:

Members of the HCCC community are required to check their official HCCC email address in order to stay current with College and course communications. All college business communication between faculty, students, and staff must be sent via an official HCCC email address. If an employer or student elects to forward or link his/her HCCC email to a separate and private account, that individual remains responsible for all material transmitted to that account. Employees of HCCC shall not be responsible for any material that remains undelivered, due to defects in the private non-HCCC accounts. Failure in the operations of private email accounts shall not be cause for excuse from communications between the students and the employee. Students that encounter difficulty with HCCC email should view the FAQ's section on the Portal.

Incomplete:

An INCOMPLETE grade for the course is given under specific conditions when a student, because of serious and unexpected reasons, cannot complete the requirements of the course. For example, if a student did not attend the final because of illness his or her excuse must be verified by a physician. Other absences from other assigned activities must be made up at another appointed time. To arrange for an incomplete grade, the student must see the instructor before final exam, so proper documentations could establish and submitted to Division and The office of Academic Affairs.

Disability Support Services:

Students with disabilities who believe that they might need accommodations in this class are encouraged to contact Disability Support Services at (201) 360-4157, as soon as possible to better ensure that such accommodations are implemented in a timely fashion. All disabilities must be documented by a qualified professional such as a Physician, Licensed Learning Disabilities Teacher Consultant (LDTC), Psychiatrist, Psychologist, Psychiatric Nurse, Licensed Social Worker or Licensed Professional Counselor, who is qualified to assess the disability that the student claims to have and make recommendations on accommodations for the student. All information provided to the Disability Support Services Program will be confidential between the program, professors involved with the student, and individual student.

Academic Integrity Standards:

Academic integrity is central to pursuit of education. For students at HCCC, this means maintaining the highest ethical standards in completing their academic work. In doing so, students earn college credits by their honest efforts. When they are awarded a certificate or degree, they have attained a goal representing genuine achievement and can reflect with pride on their accomplishment. This is what gives college education its essential value.

Violations of the principals of academic integrity include:

- Cheating on exams
- Reporting false research data or experimental results
- Allowing other students to copy one's work to submit to instructors
- Communicating the contents of an exam to other students who will be taking the same test
- Submitting the same project in more than one course, without discussing this first with instructor
- Submitting *plagiarized* work. *Plagiarism* is the use of another writer's words or ideas without properly crediting that person. This unacknowledged use may be from published books or articles, the Internet, or another student's work.

Violation of Academic Integrity:

When students act dishonestly in meeting their course requirements, they lower the value of education for all students. Student who violate the college's policy on academic integrity are subject to failing grades on exams or projects, or for the entire course. In some cases, serious or repeated instances of academic integrity violations may warrant further disciplinary action.

Detailed information on the College's Academic Integrity policy may found in the *HCCC Student Handbook*. The handbook also contains useful information for students on completing research projects and avoiding plagiarism.

Classroom Recording Policy at HCCC

Student Classroom Recording Policy

- Hudson County Community College prohibits the audio-visual recording, transmission, and distribution of classroom sessions. Classes may only be recorded with the advance written permission of the instructor. The Hudson County Community College classroom recording policy must be listed in all syllabi.
- All classroom recordings can only be used for academic purposes by students enrolled in that class. Recordings may not be shared, reproduced, or uploaded to public websites or other mediums, and these recordings may contain copyrighted material and are prohibited from any form of commercial use.
- All students and guests must be informed that the class may be recorded. Due to issues related to privacy and the possible inhibition of student participation, instructors should be mindful of the effects of permitting classroom recording.
- Instructors should retain electronic or paper copies of their written consent to grant classroom recordings.
- Students must destroy their recordings at the end of the semester.
- Students who are granted permission to record their class by the office of Disability Support Services should inform the instructor beforehand and are subject to the policies outlined in this document.
- Violation of this policy is subject to disciplinary action listed under the code of conduct as included in the Student Handbook.

Instructor Classroom Recording Policy

- Instructors may record their classes if students are informed in writing in advance that recording will take place. Instructors may distribute their own lectures, but this must be limited to the lecture portion of the class. Recordings of student presentations or activities may be used in the class if the students are notified in

advance of the recording. Recordings of student presentations or activities may not be distributed in any way without the advance written consent of the students.

Hudson County Community College has many supportive services available to help meet your goals. Below are resources available to you:

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| <p>SECURITY: Main Campus: 201-360-4080 North Hudson Campus: 201-360-4777</p> | <p>NATIONAL SUICIDE PREVENTION LIFELINE: 1-800-273-8255 CRISIS TEXT LINE: Text “HELLO” to 741-741</p> | |
| <p>IN AN EMERGENCY, PLEASE CONTACT SECURITY OR 911.</p> | | |
| <p>Department</p> | <p>Journal Square Campus</p> | <p>North Hudson Campus</p> |
| <p>Counseling Services counseling@hccc.edu</p> | <p>201-360-4150 A Building, 2nd Floor</p> | <p>201-360-4627 1st Floor, Enrollment Center</p> |
| <p>Advising Services advising@live.hccc.edu</p> | <p>https://my.hccc.edu/advisement</p> | <p>https://my.hccc.edu/advisement</p> |
| <p>Accessibility Services as@hccc.edu</p> | <p>201-360-4163 A Building, 2nd Floor https://my.hccc.edu/as</p> | <p>201-360-4163 1st Floor, Enrollment Center https://my.hccc.edu/as</p> |
| <p>Career Services career@hccc.edu</p> | <p>201-360-4184 A Building, 3rd Floor https://my.hccc.edu/career-services</p> | <p>201-360-4138 2nd Floor, Room 204 https://my.hccc.edu/career-services</p> |
| <p>Food Pantry foodpantry@hccc.edu</p> | <p>201-360-4701 J Building, Lower Level Room 002 my.hccc.edu/hudson-helps</p> | <p>201-360-4709 5th Floor, Room 513A my.hccc.edu/hudson-helps</p> |
| <p>Financial Aid financial_aid@hccc.edu</p> | <p>201-360-4200 A Building, 2nd Floor https://my.hccc.edu/fa</p> | <p>201-360-4214 1st Floor, Enrollment Center https://my.hccc.edu/fa</p> |
| <p>Information Technology Services itshelp@hccc.edu</p> | <p>201-360-4310 A Building, Lower Level https://my.hccc.edu/its</p> | <p>201-360-4309 3rd Floor, Room 309 https://my.hccc.edu/its</p> |
| <p>Library Journal Square librarian@hccc.edu North Hudson librarynhc@hccc.edu</p> | <p>201-360-4360 L Building, 1st Floor http://www.hccclibrary.net/</p> | <p>201-360-4623 3rd Floor http://www.hccclibrary.net/</p> |

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| Tutoring Center tc@hccc.edu | 201-360-4187 L Building, Lower Level https://my.hccc.edu/tutoring | 201-360-4779 7 th Floor, Room 704 https://my.hccc.edu/tutoring/ |
| Writing Center wc@hccc.edu | 201-360-4370 J Building, Room 204 https://my.hccc.edu/tutoring | 201-360-4779 7 th Floor, Room 704 https://my.hccc.edu/tutoring/ |

College Chemistry I (CHP 111)

Tentative Course Schedule

| <u>Week</u> | <u>Schedule</u> |
|--------------|--|
| September 5 | Introduction to the course, grading policy, course Requirements. Safety Rules in the laboratory, Glassware Chapter 1, Introduction: Matter & Measurement |
| September 10 | Chapter 1, Introduction: Matter & Measurement |
| September 12 | Chapter 1, Introduction: Matter & Measurement |
| September 17 | Chapter 2, Atoms, Molecules and Ions |
| September 19 | Exp. 1 - (Lab 1: Density) |
| September 24 | Chapter 2, Atoms, Molecules and Ions |
| September 26 | Exp. 2 - (Lab 2: Identification of Bicarbonates) |
| October 1 | Chapter 3, Stoichiometry: Calculations with Chemical Formulas and Equations |
| October 3 | Exp. 3 - (Lab 3: Hydrates) |
| October 8 | Chapter 3, Continued |
| October 10 | Exp. 4 - (Lab 4: Electrical Conduction of Ions in Water) |
| October 15 | Chapter 4, Reactions in Aqueous Solution |
| October 17 | Chapter 4, continued |

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| October 22 | Exam 1 |
| October 24 | Exp. 5 - (Lab 5: The Reaction Mole Ratio) |
| October 29 | Chapter 5, Thermochemistry |
| October 31 | Exp. 6 - (Lab 10: Measurements of Heat Changes) |
| November 5 | Chapter 6, Electronic Structure of Atoms |
| November 7 | Exp. 7 - (Lab 8: Atomic Hydrogen Spectrum) |
| November 12 | Chapter 7, Periodic Properties of the Elements |
| November 14 | Exp. 8 - (Lab 9: Molecular Structure and Model) |
| November 19 | Chapter 8, Basic Concepts of Chemical Bonding |
| November 21 | Exp. 9 - (Lab 6: Boyle's law) |
| November 26 | Exam 2 |
| November 28 | <i>Thanksgiving Recess-College closed</i> |
| December 3 | Chapter 9, Molecular Geometry and Bonding Theories |
| December 5 | Exp. 10 - (Lab 7: Molar Mass of a Volatile Liquid) Exp. 11 - (Lab 11: Vapor Pressure and Heat of Vaporization of Water) |
| December 10 | Chapter 10, Gases |
| December 12 | Chapter 11, Liquids and Intermolecular Forces |
| December 17 | Chapter 12, Solids and Modern Materials |
| December 19 | Exam 3 |

The course schedule may be subject to change depending on the progress of the course and needs of the students.