Hudson County Community College STEM Introduction to Chemistry, CHP-100 Credits: 3

| Textbook: | Chemistry for Changing Times, 14 th Edition by John W. Hill, Terry W. McCreary, ISBN-13: 978-0-321-97202-6 | |
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| Laboratory: | Lab Manual for Introduction to Chemistry by Dr. Hsieh (available at book store) | |
| Instructor: | | |
| Day and Time: | | |
| Location: | | |
| Office Location: | | |
| Office Hours: | | |
| Grading Policy: | 3 exams 25% $75%$ Lab Reports $10%$ Class Participation $5%$ Homework $5%$ Quizzes $5%$ There will be four exams and the lowest grade will be dropped.NO OTHER EXTRA CREDIT WORK OR MAKE-UP EXAM WILL BE GIVEN!Students are required to attend all classes regardless of grade.The grade scale for this class will be as follows: $A = 100-94, A - = 93-90, B + = 89-84, B = 83-75, B - = 74-70,C + = 69-64, C = 63-54, D = 53-50, F = Below 50.$ | |

Course Description: This course is designed for students who have not had high school chemistry and for those who wish to review the subject. The course emphasizes descriptive chemistry. Topics include measurements and units, the periodic table, the atom, nuclear radioactivity, bond formation, simple stoichiometry, acid-base, redox, and organic compounds. The associate laboratory involves common measurement techniques and illustrates the lecture materials presented.

Lab: You may not make-up a lab experiment missed. Lab reports should may not be hand written. 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

Student Learning Outcomes: Upon completion of the course you should be able to:

1. Apply the scientific method to analyze problems regarding chemistry and report

outcome

- Define science and cite at least three characteristics of science
- Define a possible scientific process
- Apply scientific method to analyze problems and report the outcome
- 2. Explain the role of science and technology in society.
- 3. Demonstrate an understanding of the fundamentals of chemistry to include:

• Name and correctly apply units of measurements in metric units (SI) and foot-pound-second (FPS) system

- Define components of an atom, arrange electron distribution
- Classify bond types
- Balance a simple chemical equation
- Define acids and bases and pH value
- Describe redox reactions
- Describe organic chemistry and name at least three functional groups

4. Correctly and safely employ laboratory equipment and procedures to solve chemistry

problems.

- 5. Think critically about the science and practice of chemistry
- 6. Report laboratory findings clearly with correct scientific terminology

Attendance Policy: The college policy is generally that a student may fail a course due to lack of attendance if she/he missed more than 6 hours of instructional time for a 3-credit course. You CAN NOT make-up a missed lab.

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 room S 607.

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 at least one test. NO texting during lectures or exams! 10 points will be deducted from each exam if I catch you texting. 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 schedule an appointment with Disabilities 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: 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.

Hudson County Community College Classroom Recording Policy

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:

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

| Library Journal Square <u>librarian@hccc.edu</u> North Hudson <u>librarynhc@hccc.edu</u> | 201-360-4360 L Building, 1 st Floor <u>http://www.hccclibrary.net/</u> | 201-360-4623 3 rd Floor http://www.hccclibrary.net/ |
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| Tutoring Center <u>tc@hccc.edu</u> | 201-360-4187 L Building, Lower Level <u>https://my.hccc.edu/tutoring</u> | 201-360-4779 7 th Floor, Room 704 <u>https://my.hccc.edu/tutoring/</u> |
| 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/ |

Introduction to Chemistry (CHP 100)

| Date | Торіс |
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| 1) | Introduction and overview of the course, Review of course syllabus, grading, attendance, Safety in the lab, Chapter 1 Chemistry |
| 2) | Chapter 1 Chemistry continued, Chapter 2 Atoms, Lab 1 : The Laboratory Balance |
| 3) | Chapter 2 Atoms continued, Chapter 3 Atomic Structure Lab 2 : The Use of Volumetric Glassware |
| 4) | Chapter 3 Atomic Structure continued, Lab 3: The Laboratory Burner |
| 5) | Chapter review 1, 2 and 3 <mark>Exam I</mark> , Chapters 1, 2 & 3 |
| 6) | Chapter 4 Chemical Bonds, Lab 4 : Measurement of Temperature |
| 7) | Chapter review 1, 2, 3 & 4 <mark>Exam II</mark> , Chapters 1, 2, 3 & 4 |
| 8) | Chapter 5 Chemical Equations, Lab 5: Molecular Model and Lewis structure |

| 9) | Chapter 6-Gases, liquids, solidsand intermolecular forces Lab 6: Acids, Bases, and Salts. pH |
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| 10) | Chapter 7—Acids & Bases Lab 7: Density |
| 11) | Chapter 7 –Acids & Bases continued, - A video about acids |
| 12) | <i>Exam III, Chapters 5, 6 and 7</i> Lab 8: Redox Reaction |
| 13) | Chapter 8 Oxidation and Reduction Lab 9: Making Soap |
| 14) | Chapter 9, Organic Chemistry |
| 15) | Exam IV, Chapters 7, 8 & 9 |

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