**Chemistry 111, Principles of Chemistry**

**Sections 9**

**Instructor:** Dr. Riggs-Gelasco  
**Class Time:** MWF 10:00-10:50  
SSMB 127  
**Office:** New Science Center, room 324 (Chemistry Main Office)  
**Phone:** 953-7455  
**e-mail:** gelascop@cofc.edu  
**Office Hours:** Monday 11:00-12:00  
Tuesday 3:30-4:30  
Thursday 10:00-10:45

**Course Goals:** To understand the introductory fundamentals of chemistry; these fundamentals include: Physical and Chemical Properties of Matter, Measurements and Handling Numbers, Dimensional Analysis, Atomic Theory, Structure of Atoms, Molecules and Ions, Naming Simple Compounds, Stoichiometry (Atomic Mass, Moles, % composition), Empirical Formulas, Balancing Equations, Limiting Reagents and Reaction Yields, Reactions in Aqueous Solution (Redox, Acid-Base, Precipitation), Molarity and Dilutions, Gas Laws, Kinetic Molecular Theory of Gases, Energy Relationships in Chemical Reactions (Hess’s Law, Enthalpy, Calorimetry), Electronic Structure, Quantum Mechanics, Atomic Orbitals, Periodic Trends, Chemical Bonding (Lewis Dot Structures, Covalent Bonding), Molecular Geometry (Valence Bond Theory), Intermolecular Forces, Properties of Liquids, Properties of Solids. These topics are covered in Chapters 1-12 in your book.

After completing this course, you should have a strong foundation for upper-level courses in the Chemistry Department.

**Student Learning Outcomes:**

- Describe how to employ the scientific method
- Solve chemistry problems by employing mathematical techniques and chemical reasoning
- Understand how atoms interact to form molecules and compounds
- Identify the properties of compounds
- Employ an understanding of chemical reactivity to analyze chemical reactions

**General Education Learning Outcomes:**

- Students apply physical/natural principles to analyze and solve problems.
- Students will develop an understanding of the impact that science has on society.

(Note: General Education Learning Outcomes will be assessed in the second semester course of the Science Gen Ed Sequence, Chem 112/Chem 112L)

**Pre-requisite/Co-requisite:**

Chem 111 requires you to be taking Math 111 (co-req) or that you placed out of Math 111 via the Math Placement Exam. If you do not currently meet either of these requirements, you probably shouldn’t be taking this course yet.
**Withdraw Date:**
The withdraw date for fall semester is Wednesday, October 24. If you withdraw from Math 111, you may have to drop Chem 111. We will work with you to evaluate your situation if you find you are struggling too much to succeed in your coursework. The best advice is to not get behind and to seek help early and often.

**Texts:**

   Chemistry 112, the next course in the Chemistry sequence, will cover the remaining chapters in the book. Do not sell your text at the end of the semester if you are continuing on to Chem 112. (You do not need to bring the book to class)


3) Optional: Problem-Solving Workbook with Selected Solutions to accompany Chemistry: Atoms First (El-Ashmawy and Richardson) available from Amazon.

4) Optional: Saundra Yancy McGuire, *Teach Yourself How to Learn.*

**E-mail:** I communicate with the class using email. There may be class updates via email. Please make sure that your College email account is updated in My Charleston in your profile so that you do not miss important announcements. On the days prior to tests, it is especially important that you read your email, as I may have important information to get to you (such as “don’t worry about this topic, we’ll move that to the next test”).

**Calculator:** You will need a NON-programmable calculator for exams. You will need to bring this calculator to class. Programmable calculators will not be allowed in tests. Cell phones or text messaging devices will not be allowed during exams and are not allowed in class-- do not plan on using the calculator on your iPhone or other communication device. I would suggest the following acceptable calculator available online or at Office Depot/Staples/Amazon etc, *Texas Instruments® TI-30Xa Scientific Calculator.* Purchase this well in advance of the first test so that you know how to use it. It is usually available at the College Bookstore as well. PLEASE BRING YOUR CALCULATOR TO CLASS.

**Electronics:**
All texting devices and cell phones must be put away during class. There are no computers allowed in class. Failure to adhere to this policy will affect your deportment grade. The only electronic device I want to see you operating is your calculator.

**Homework:**
The key to success in this class is doing chemistry problems again and again. You should be able to explain to another person how to do the problems. Practice speaking out loud how you are working a problem and why you are doing each step. You need to be working problems every single day. The tests will be very similar to problems from the homework.

You will be expected to work through the assigned end-of-chapter questions. In general, these will NOT be graded or collected. Nonetheless, they are the key to your success. You will have answers from the workbook (if you purchased one---available online) and you must monitor your progress and get help if you need it.

It is your responsibility to learn how to work the problems!

I am very willing to help you, but for the most part, learning chemistry is a lonely, time-consuming and difficult lesson in self-discipline.
Daily Homework: You will also be expected to complete an online assignment after the completion of each lecture. Each day of lecture, hopefully by 5pm, the next homework will be posted. You should complete it before the next lecture period; the deadline is set by the computer. Instructions for initializing your McGraw-Hill Connect account are attached. If you purchased a new book, your code is provided with the purchase of the book. If you score 75% or higher on the online homework, you will receive full credit for the homework. This policy is to compensate for the occasional electronic mishaps that arise.

Quizzes: We will also have in-class quizzes, usually 5-10 minutes during class. Other times, I may assign more challenging written take home problem(s) that will be due the next class session. Other times, I may require you to turn in a video of yourself explaining how to do a problem. If you are absent for any day when we have an in-class quiz, you will receive a zero. Take-home quizzes must be turned in at the start of class or it will otherwise receive a zero. Videos must be posted by the due date. Your lowest quiz score will be dropped.

Attendance: It is difficult to be successful in this course without attending class. I do not take attendance in class after we have confirmed the class roll, but you will get a zero for any missed quizzes. If you choose to miss class, it is your responsibility to find a classmate who will share their notes with you. I do not have copies of my notes for you.

Hourly Exams:
The following are tentative dates for the exams. These dates are subject to change.

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<th>Exam</th>
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<tr>
<td>1</td>
<td>Wednesday, September 12</td>
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<td>2</td>
<td>Friday, October 5</td>
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<td>3</td>
<td>Friday, October 26</td>
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<td>4</td>
<td>Wednesday, November 28</td>
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Final Exam: Monday, December 10, 8:00 am
Your final is a standardized exam written by the American Chemical Society. It is a TIMED, multiple choice test. You will have 110 minutes to complete the 70 multiple-choice questions.

Makeups: There are NO makeup tests or quizzes. An unexcused absence on the day of an exam will result in a zero on that exam. If you have an excused absence documented by the Dean of Undergraduate Studies for documented illness or family emergency, your remaining test scores will all be weighted equally and more heavily towards the final course grade to compensate for the missed exam. If you are going to miss an exam, notify me ahead of time by phone message (my office or the chemistry office) or by email.

Even if you have a good excuse, you may not miss more that one exam. You will be dropped from the roll for excessive absence if you miss more than one exam.

Your lowest quiz grade will be dropped. If you miss a quiz, that is the grade that will be dropped.

Supplemental Instruction: Bach Nguyen will lead your supplemental instruction. His email is nguyenbd@g.cofc.edu. He will be arranging a variety of times when he will be available to work through problems with you. You are required to make an appearance at either office hours and/or supplemental instruction at least six times this semester.

Center for Student Learning: The Center for Student Learning is located in the Addlestone Library, room 119, and has walk-in tutoring for several math and science courses, including Chem 111.
Optional Service Project:
For the past ten years, this learning community has participated in the Lowcountry’s Beach Sweep. We tackle a section of downtown Charleston’s waterfront along Charleston Harbor. This year, Beach Sweep is on September 15, 2016. We usually start around 9am and are done by noon. If you like playing in the mud, this is for you!

Deportment:
To maintain a classroom environment that is conducive to learning, I expect respectful behavior from students in my classes. This means no texting, giggling, sleeping, whispering, arriving late, leaving early, or coming unprepared. Cell phones are to be put away unless we are using them for an activity in class.

Electronics:
Please keep all electronics off and put away during class unless we are using them for an activity. This includes phones, computers, iPads, etc.

Grading Policy:
Four Exams 48%
Final Exam 18%
Aleks (due Aug. 29th at 11 pm) 5%
Online Homework 15%
Quizzes *lowest will be dropped 10%
Office Hour/SI Attendance/Deportment 4%

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Extra Credit:
There is no extra credit in this course.

Academic Integrity: Students are expected to abide by the College of Charleston’s Honor Code and are referred to the Student Handbook to review this policy: http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php.

The following description of cheating is from the student handbook:

“the actual giving or receiving of unauthorized, dishonest assistance that might give one student an unfair advantage over another in the performance of any assigned, graded academic work, inside or outside of the classroom, and by any means whatsoever, including but not limited to fraud, duress, deception, theft, talking, making signs, gestures, copying, electronic messaging, photography, unauthorized reuse of
previously graded work, and unauthorized use or possession of study aids, memoranda, books, data, or other information. The term cheating includes engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.”

For this course, entering formulas into a calculator to be used during an exam will be considered as an act of premeditated cheating.

Students that cheat and are then prosecuted through the Honor Board receive a grade of XF. This does not look good to all future employers and graduate programs. It is infinitely better to get an F than an XF.

**Disabilities:** If there is a student in this class who has a documented disability and has been approved to receive accommodations through SNAP Services, please feel free to come and discuss this with me. If you have been approved for additional testing time, that will need to be arranged in advance with the testing center and you must take the exam at the testing center.