Chemistry 111, Principles of Chemistry
Sections 4, Linked Learning Community to Biology 111

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
Tuesday 10:00
Thursday 10:30

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. We hope also that as part of this learning community, that you will understand better the connections between the study of Biology and Chemistry.

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)

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 Thursday, October 27. If you withdraw from Math 111, you may have to drop Chem 111. If you drop Chem 111, you may have to drop Bio 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)

2) Required: Max, D. T., *The Family that Couldn’t Sleep: A Medical Mystery* (Random House)

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

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 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. 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.

**Attendance:** I do not take attendance in class after we have confirmed the class roll. 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. To have notes for the class, you should come to class.

**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>Friday, September 16</td>
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<td>2</td>
<td>Wednesday, October 12</td>
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<td>3</td>
<td>Friday, November 4</td>
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<td>Monday, November 21</td>
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**Final Exam:** Wednesday, December 7, 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 that I find plausible, 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.

**Supplemental Instruction:** Grace Moxley will lead your supplemental instruction. Her email is moxleyge@g.cofc.edu. She will be arranging a variety of times when she will be available to work through problems with you. You are required to make an appearance at office hours and/or supplemental instruction at least six times this year.

**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.

**Service Project:**

Every year for the past eight 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 17, 2016. We usually start around 9am and are done by noon. If you like playing in the mud, this is for you!
Synthesis Seminar (SS):
Mondays, 3:05-3:55, SSMB 203

Your peer facilitators are Haley Thornton and James Barton Souza.

Because this class is part of the First Year Experience Program, participation in the synthesis seminar is mandatory. Your attendance at SS will count as 2% of your grade in this course. These are the easiest points you will earn in your college career. You will be allowed to miss one SS session without penalty to your attendance grade. For each absence after that, you will lose 15% of the attendance points.

You will have four assignments and small writing prompts as part of this coupled class. These assignments will contribute 5% to your grade. Your participation in this seminar will count both towards your grade in this course and your grade in your Biology 111 course. The same assignments will contribute to your grade in both Biology and Chemistry. More information on the assignments will come in a few weeks.

Deportment:
To maintain a classroom environment that is conducive to learning, I expect certain behavior from students in my classes. Students that text, chatter, giggle, sleep, whisper, whine, arrive late, leave early, or come unprepared are disrupting their fellow students’ learning experience. At some point in your career as a College student you will be requiring oral or written recommendations from your professors here. In all of your courses, I advise you to behave like the ideal student you want your professors to write about.

Electronics:
Please keep all electronics off and put away during class. This includes phones, computers, iPads, etc.

Grading Policy:
Four Exams 60%
Final Exam 18%
LearnSmart Prep (due Aug. 31st at 11 pm) 5%
Synthesis Seminar Attendance 2%
Synthesis Assignments 5%
Mystery Points 10%

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Mystery Points
The last 10% of your grade will be a combination of quizzes, take-home problems, test corrections, online homework assignments, attendance at office hours/SI and deportment. I will select which of these items will be counting at the end of the term. For example, I may give you 1% for attending office hours six times, 1% for quiz 2, 1% for quiz 6, 1% for online homework assignment 27, etc. All students will be graded with the same arbitrarily chosen assignments.

Extra Credit:
There is no extra credit in this course.
Academic Dishonesty:
Cheating will not be tolerated in this course. 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 during my office hours. 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.