Instructor: Dr. Thu Lesher
Office Location: SSMB 326
Office hours: MWF 8:30am-10:30am, Thursdays 11:00 - Please make an appointment via Zoom.

The easiest way to contact me is through e-mail. It is important for you to learn how to be professional in your email communications. Typically, I will respond to your email within 24 hours, although my response time will be slower on weekends (24 – 48 hours).

When corresponding with me, please:
✓ include CHEM 111-04 in the subject line
✓ include a respectful greeting, use complete sentences, and fully sign your name
✓ proofread your email
✓ look in at least 3 places for the answer to your question before asking me (OAKS, email, syllabus, etc.)

Text: General Chemistry: Atoms First 4th Edition Authors: Burdge, Julia and Overby, Jason. The online text is included in ALEKS 360. Class Code: AJQNR-D9GUD

Technology:
• A computer with reliable internet access, microphone, speakers and webcam. Resources are available through the college to provide students with these essential tools, if needed.
• A scientific calculator that you know how to use and bring to each class meeting. (If there is a test or quiz requiring use of a calculator, you will not be able to use your cell phone as a “calculator.”)
• A method to scan in multiple pages of your handwritten work into a single pdf document that can be quickly uploaded to OAKS. I recommend AdobeScan, which is a free app that can be used with your cell phone. See the following link for a tutorial on how to scan in your work: http://tlt.cofc.edu/2020/03/24/tech-tip-tuesday-how-to-scan-handwritten-drawn-work-to-a-pdf-to-submit-in-oaks/.
• Adobe Acrobat, software available through the AppsAnywhere portal.

Course Info: An introductory course in chemistry emphasizing theoretical aspects and designed primarily for students who intend to take one or more additional courses in chemistry.
Co-requisites: Chemistry 111L is normally a co-requisite course. You must either be concurrently enrolled in the lab or else have already passed the lab. The lab is an experiential learning course and attendance in all lab periods is mandatory. If you must take all of your classes online this semester and cannot take CHEM 111L, you will need to make special arrangements with our departmental administrative assistant, Ms. Kendrick at kendrickcd@cofc.edu. You will be allowed to enroll in CHEM 112 and take CHEM 111L and CHEM 112L simultaneously in a future semester. The two courses (CHEM 111 & 111L) are graded independently of each other.

Chem 111 Learning Outcomes:
• Describe how to employ the scientific method
• Solve chemistry problems by employing mathematical techniques and chemical reasoning
• Understand how atoms interact covalently and non-covalently 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: These will be assessed in the second semester course of the Science Gen Ed Sequence, Chem 112)
What to expect:
This class will include a variety of online and technology enhanced components to reinforce continuity of learning for all enrolled students. Before the drop/add deadline, students should decide whether the course plan on the syllabus matches their own circumstances.

All updates and class materials will be posted on OAKS. Please check OAKS multiple times a day. Each lecture will be accompanied by a powerpoint presentation of the material, highlighting information from your textbook. You should review the powerpoint presentation prior to our class meetings. Class meetings will occur as scheduled and will be the time for review of the material, problem-solving and open questions. It is essential that you come prepared to ask any questions you may have to get the most out of our class meetings.

Masks are MANDATORY in class, and you are encouraged to sit at least 3 feet from other students.

Attendance and late work: Attendance will be taken every day and is mandatory for test days. Class attendance and success in the course are directly related. If you miss more than 3 classes in a row, or more than 5 classes during the semester, I will request a conference. If you are a student-athlete or away from class due to documented college-related business an accommodation will be made if arrangements are made prior to the absence. If in-person classes are suspended, faculty will announce to their students a detailed plan for a change in modality to ensure the continuity of learning.

All work is expected to be turned in on the assigned due date. Late work (not including ALEKS assignments) may be turned in up to 5 days late with a 5% deduction each day.

How to Prepare for Class: Chemistry is not a spectator sport!

- **Practice:** The only way to get good at solving problems is to practice solving problems. Watching someone else solve the problem or reading the solution cannot substitute for you putting pen to paper and trying to solve the problem on your own.

- **Be consistent:** Develop a regular study schedule and learn the concepts as we discuss them in class. Chemistry is cumulative and it takes time for the concepts to sink in. You cannot cram chemistry.

- **Think:** Chemistry needs to be understood, not memorized. Always ask yourself why you are doing a certain step in problem or using a particular equation. Take responsibility for learning the material and be actively engaged.

CHEM 111 is taught with the assumption that students have learned the fundamental concepts covered in a full year of high school chemistry class. You are responsible for all material covered or assigned (check OAKS and ALEKS daily for updates). Do not rely on the powerpoint presentations alone for the material – they are only highlights of concepts. You should also read your book for clarification and examples of how to work problems.

It is vital that you keep current in your studies. I am here to explain the material and help you to the best of my time and ability. However, the burden of learning is upon you, the student. The key to success in this class is working through chemistry problems until you understand the concepts. I encourage you to study with other students, and to collaborate on homework concepts, but not on individual assignments.

Homework (ALEKS) assignments: Class Code (Spring 2022): **AJQNR-D9GUD**

The key to success in this class is doing chemistry problems again and again. You need to be working problems every single day. ALEKS is designed to help you learn the concepts I cover in class, so this may take you a little bit of time, or a lot of time, depending on how fast and how well you master the material. Before your sit down at your computer, makes sure you have paper, pencil and a calculator so that you are prepared to work on the problems that are presented.

KEEP UP with your assignments and don’t try to cram at the last minute. Work a few sets of problems each day, so that you don’t get overwhelmed! It is important for you to put pencil to paper, to actually
work out the problems, drawing structures, performing calculations, and naming compounds. As you work the problems, seek to understand the process and not simply to get the correct answer. 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.

Quizzes:
There will be several quizzes given throughout the semester. Most quizzes will test whether or not you understand the concepts from the online lectures and problems from ALEKS. There will be a combination of test-question-like quizzes and video presentation submissions.

Tests:
There will be four 75-min in-person exams throughout the semester, each being worth 15% of your final grade. Although the tests are not necessarily cumulative, the material in this course builds upon what is learned, that is, in order to understand later material, it is necessary for the student to grasp the previous section’s material. The final exam, however, will be cumulative. There will be NO MAKE-UP tests. Your lowest test score (including missed tests) may be replaced by the final exam grade.

Final Exam:
The comprehensive final exam will cover Chapters 1-11. (see Final Exam Schedule for date and time).

Academic Support Services: The Center for Student Learning (CSL) is located on the first floor of Addleston Library, and offers a wide variety of tutoring and other academic resources. Make use of the Math Lab and the Science Lab as needed. Supplemental Instruction (SI) is offered in conjunction with this section of CHEM 111. SI sessions give students a chance to work together with trained SI leaders to discuss course concepts, develop strategies for studying course material, work problems, and review notes. All services are described and lab schedules are posted on the CSL website (http://csl.cofc.edu).

Disabilities: Any student eligible for and needing accommodations because of a disability is requested to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged. Center for Disability Services/SNAP. The Center for Student Learning’s (CSL) academic support services provide assistance in study strategies, speaking & writing skills, and course content. Services include tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the services are available to you at no additional cost. For more information regarding these services please visit the CSL website at http://csl.cofc.edu.

Mental & Physical Wellbeing:
At the college, we take every students’ mental and physical wellbeing seriously. If you find yourself experiencing physical illnesses, please reach out to student health services (843.953.5520). And if you find yourself experiencing any mental health challenges (for example, anxiety, depression, stressful life events, sleep deprivation, and/or loneliness/homesickness) please consider contacting either the Counseling Center (professional counselors at http://counseling.cofc.edu or 843.953.5640 3rd Robert Scott Small Building) or the Students 4 Support (certified volunteers through texting "4support" to 839863, visit http://counseling.cofc.edu/cct/index.php, or meet with them in person 3rd Floor Stern Center). These services are there for you to help you cope with difficulties you may be experiencing and to maintain optimal physical and mental health.

The Honor Code: The honor system is in effect in all efforts for this course. Cheating will not be tolerated. Please familiarize yourself with the College of Charleston Honor Policy as well as the Department of Chemistry’s policy on Scientific Integrity. By enrolling in this course, you are agreeing to abide by the Departmental policy on Scientific Integrity. Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when suspected, are investigated. Each incident will be examined to determine the degree of deception involved.
Incidents where the instructor determines the student’s actions are related more to misunderstanding and confusion will be handled by the instructor. The instructor designs an intervention or assigns a grade reduction to help prevent the student from repeating the error. The response is recorded on a form and signed both by the instructor and the student. It is forwarded to the Office of the Dean of Students and placed in the student’s file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XXF in the course, indicating failure of the course due to academic dishonesty. This status indicator will appear on the student’s transcript for two years after which the student may petition for the XX to be expunged. The F is permanent.

Students can find the complete Honor Code and all related processes in the Student Handbook at: http://deanofstudents.cofc.edu/honor-system/studenthandbook/.

**Grading:**

15% ALEKS Assignments (7.5% for daily assignments, 7.5% for completion of pie)
10% Quizzes
60% Tests
15% Final Exam

**Grading Scale:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93-100</td>
<td>A</td>
</tr>
<tr>
<td>90-92</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
</tr>
<tr>
<td>80-82</td>
<td>B-</td>
</tr>
<tr>
<td>77-79</td>
<td>C+</td>
</tr>
<tr>
<td>Below 77</td>
<td>F</td>
</tr>
<tr>
<td>73-76</td>
<td>C</td>
</tr>
<tr>
<td>70-72</td>
<td>C-</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
</tr>
<tr>
<td>63-66</td>
<td>D</td>
</tr>
<tr>
<td>60-62</td>
<td>D-</td>
</tr>
</tbody>
</table>

**Chemistry 111 Spring 2022 Working Schedule (subject to change, please be flexible)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 11</td>
<td>Introduction, Syllabus, Chapter 1</td>
</tr>
<tr>
<td>Jan 13</td>
<td>Chapters 1 &amp; 2</td>
</tr>
<tr>
<td>Jan 18</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>Jan 20, 25</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Jan 27</td>
<td>Chapter 3 and Test Review</td>
</tr>
<tr>
<td>Feb 1</td>
<td>In-class Test #1 (Chapters 1, 2 &amp; 3)</td>
</tr>
<tr>
<td>Feb 3, 8</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>Feb 10, 15 &amp; 17</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>Feb 22</td>
<td>Test # 2 on Chapters 4 &amp; 5</td>
</tr>
<tr>
<td>Feb 24</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>Mar 1</td>
<td>Chapters 6 &amp; 7</td>
</tr>
<tr>
<td>Mar 3</td>
<td>Chapters 7 &amp; 8</td>
</tr>
<tr>
<td>Mar 8, 10</td>
<td>Spring Break – no class</td>
</tr>
<tr>
<td>Mar 9, 11</td>
<td>Chapters 6 &amp; 7</td>
</tr>
<tr>
<td>Mar 15</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Mar 17</td>
<td>Test # 3 on Chapters 6, 7 &amp; 8</td>
</tr>
<tr>
<td>Mar 22, 24, 29</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>Mar 31, Apr 5</td>
<td>Chapter 10</td>
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<tr>
<td>Apr 7</td>
<td>Chapter 10 &amp; Part of Chapter 12</td>
</tr>
<tr>
<td>Apr 12</td>
<td>Test #4 on Chapter 9, 10 and Part of 12</td>
</tr>
<tr>
<td>Apr 24, 19</td>
<td>Chapter 11</td>
</tr>
<tr>
<td>Apr 21</td>
<td>Chapter 11, Finish new material &amp; Review for Final Exam</td>
</tr>
</tbody>
</table>

**Tentative Test Dates** – Tues 2/1, Tues 2/21, Thurs 3/17, Tues 4/12
Learning strategies

Class Preparation Strategies:
1. Implement a study schedule to include 3-4 intense study sessions per day.
2. Actively prepare to read by previewing reading assignments.
3. Read actively by developing questions before you start to read.
4. Paraphrase information in each paragraph/section of a reading assignment.
5. Actively read and learn by using flashcards, concept maps, chapter maps, and other tools.
6. Always attend every class.
7. Take good notes by hand.
8. Preview and Review for every class.
9. Ask and answer questions and actively participate in class.
10. Do HW assignments without using examples or textbook information.
11. Prepare as if you have to teach the information you are learning.
12. Study with a partner or study group, go to each session prepared.
13. Create practice exams to evaluate your mastery of the material.
14. Start HW the day it is assigned as do a little of it each day.
15. Memorize everything you are told to memorize.
16. Aim for 100% mastery of the material.
17. Use on-campus resources.
18. Visit SI sessions and/or your professors’ office hours on a regular basis.

Test Strategies:
19. Organize test information by preparing charts, outlines, or a study guide.
20. Write down formulas or other information you may need before you begin an exam.
21. Read directions VERY carefully, listen to directions, and ask for clarification.
22. Survey the exam before starting and budget your time.
23. Begin with the easiest questions and work your way to the harder ones.
24. Expect memory blocks and recognize that information will come back to you if you move on to other questions, so don’t get stuck!
25. Perform deep breathing to relax, and use positive self-talk to reduce test anxiety.
26. Analyze all returned tests and quizzes, and develop a plan for improvement.

General strategies:
27. Adopt a growth mindset about intelligence.
28. Monitor your self-talk and stay positive.
29. Attribute results to action, not ability.
30. Know and understand your learning style and preferences.
32. Keep a calendar and check-list.
33. Commit to studying 20-25 hours per week.
34. Protect your free time.
35. Prioritize your needs and wants.

(adapted from Saundra and Stephanie McGuire’s Strategies for students)