Chemistry lab is an exciting and fun experience when carried out in a safe and knowledgeable manner. Our goal is to increase your enthusiasm, to better your laboratory technique, and to supplement the information gained in lecture. You are expected to come to each lab on time and be prepared to carry out the day’s tasks. The 1-credit lab course is a co-requisite of the 3-credit lecture course. Should either course be dropped, both must then be dropped.

**Co-requisites and Prerequisites:** Chemistry 101 is a co-requisite for Chemistry 101L. Competency at the mathematics 101 level and beyond is suggested. Chemistry 101L is not open to students who have taken Chemistry 111 or 112. If you are repeating the lecture or lab and do not need to repeat the co-requisite course, you must remedy this with the department chair before the close of Drop/Add. The last day to Drop/Add is Wednesday January 18, 2023 at 5:00 p.m.

**CHEM 101 Lab Student Learning Outcomes:**
- Describe the safety strategy learned in this course and how following that strategy facilitates safe behavior in everyday life.
- Describe how to properly take measurements, record data, perform calculations, analyze results, and summarize findings in simple experiments.
- Determine fundamental physical and chemical properties of chemical compounds.

**Student Learning Outcomes for Natural Sciences General Education Courses:**
- Students can apply physical and natural principles to analyze and solve problems,
- Students will develop an understanding of the impact that science has on society.

The general education learning outcomes will be assessed with a signature assignment in the second course of the natural science sequence, Chem 102 lecture and lab. This course is part of a larger educational experience, and as such we will attempt to align the course with the overall vision for the college whose purpose states we should pursue and share knowledge through study, inquiry and creation to empower the individual and enrich society.

**Materials Provided by the Student:**
- Lab manual – available from CofC bookstore
- approved safety gloves (nitrile), lab coat, and calculator
- Googles or safety glasses -available from CofC bookstore.

**Safety:** Safety is of prime concern for the sake of each participant in the lab. Our **Strategy for achieving safe behavior is:**
1. Know & follow the Safety Rules;
2. Look for & recognize safety hazards
3. Take proactive steps to minimize the risk of injury from the hazards.

Each Student is responsible for arriving for lab wearing a full-length lab coat, long pants, crew socks that cover all skin below the neck, closed toed shoes, gloves, and safety glasses or goggles regardless of the activity occurring in the labs. If you do not complete the safety training and pass the safety quiz, you will not be allowed back in lab.

Blatant unsafe behavior, including failure to wear safety goggles, may result in expulsion from the laboratory and possible expulsion from the course. Expulsion from the lab will result in the grade of ZERO for that experiment. Two expulsions will result in an automatic “F” for the course.

In case of an emergency evacuation of the School of Science & Mathematics Building, all students in this class MUST REPORT to the front entrance of the Addlestone Library so that roll can be taken. The Library is on Calhoun Street directly across from the School of Science and Math Building (SSMB). Since peoples’ lives are potentially at stake, a student’s failure to report for this roll will result in a grade of zero for that day’s lab report and a grade of zero for the semester deportment grade.

Pre-lab lectures/Labs: All pre-lab lectures will be given at the beginning of lab. Students are expected to come to lab on time and prepared with prelab assignments completed. The door will be locked (for safety) once class begins, therefore late arrivals will pose a significant disruption. Pre-lab assignments will be checked at the start of class and submitted with reports at the end of class.

Attendance: Labs are experiential learning courses that emphasize the scientific method and data interpretation, and they provide training in essential technical skills for chemists and other scientists. Furthermore, the technical lab skills presented in one course are assumed to have been mastered in subsequent chemistry courses. Thus, attendance in all lab periods is mandatory.

With that in mind, do not attend lab if you are sick or in isolation. If you must miss lab, you must notify your professor before the beginning of the scheduled lab period to be eligible to do a makeup assignment for the lab. It is at the discretion of the instructor if a dry-lab makeup assignment can be given. Not all experiments are available for such accommodation. Be prepared for your instructor to ask you to share documentation or reason for absence. If you do not, you will be assigned a grade of zero for all items due that week. Likewise, if a makeup assignment is not completed within the time allowed by the instructor, you will be assigned a zero for that assignment. If you are unable to email, ask a roommate or family member to do so on your behalf. Communication is the key to success.

Excessive (>2 missed lab periods) absences from lab will diminish your lab experience. Please do not request these accommodations unless absolutely necessary. If you miss more than two weeks of lab for any reason, you must talk to your professor about your options, including withdrawing and retaking it in a future semester when you are able to fully participate in the class.

Honor Code: Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, 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 a misunderstanding will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to 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 XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student’s transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration—working together without permission—is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others’ exams, fabricating data, and giving unauthorized assistance. For this particular laboratory, students will be allowed to ask questions of the instructor and to collaborate with other students on the lab experiment during the lab period. Please consult the instructor if you have any questions about the Honor Code or Policy on Scientific Integrity. It’s better to ask permission than for forgiveness.

Disability Services/SNAP Students: The College will make reasonable accommodations for persons with documented disabilities. Students should apply for services at the Center for Disability Services/SNAP located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for notifying the instructor as soon as possible and for contacting the instructor one week before accommodation is needed.

Schedule: The Student should refer to the schedule shown below to determine the required experiment number(s) and Pre-Lab assignment for each week and quiz schedule. It is the Student’s responsibility to come to lab prepared by reading and understanding the entire lab assignment (Discussion/Procedure/Report) and by completing the Pre-Lab assignment. The instructor will notify students through OAKS and email of all the changes to labs, curriculum, quizzes, and assignments.

Individual or Pair Lab Reports: The completed Pre-lab assignment will be checked prior to admission for lab. This must be done. Quizzes: Missed quizzes cannot be made up for any reason (see Attendance policy above). Discussing Quiz questions with students from another section prior to them taking the Quiz is a violation of the Honor Code and strictly prohibited. If a student misses for any reason a lab, the student is still responsible for the content of the labs, Pre-labs, and In-lab reports.

Final Exam: The final exam will cover all the subject matter included in lab. It will be a departmental exam that will include 30-50 multiple choice questions. The exam is scheduled for the last week of lab at the regularly scheduled time for each lab section. Discussing Final Exam questions with students from another section prior to them taking the Exam is a violation of the Honor Code and strictly prohibited.

Deportment: Proper deportment in lab is required to ensure a safe, effective and enjoyable lab experience for all. Deportment encompasses safe behavior, lab cleanliness, preparation for lab, promptness, lab report neatness and respect for others. Repeated safety offenses can result in expulsion.
from a particular lab period with a grade of zero also assigned to that lab and possible expulsion from
the course. Points may be deducted from weekly lab grades due to safety, conduct, or housekeeping
violations.

**OAKS:** The Student is expected to check OAKS to access the course syllabus, individual labs,
supplemental material, the syllabus, quizzes, information, contracts, and the course weekly schedule. The
Student can access OAKS through the main College of Charleston web site.

**Inclement Weather, Pandemic or Substantial Interruption of Instruction:** 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 students must have access to a computer equipped with a web camera,
microphone, and Internet access. Resources are available to provide students with these essential tools.

**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
difficulties you may be experiencing and to maintain optimal physical and mental health.

**Food & Housing Resources:** Many CofC students report experiencing food and housing insecurity. If
you are facing challenges in securing food (such as not being able to afford groceries or get sufficient food
to eat every day) and housing (such as lacking a safe and stable place to live), please contact the Dean of
Students for support (http://studentaffairs.cofc.edu/about/salt.php).

Also, you can go to http://studentaffairs.cofc.edu/student-food-housing-insecurity/index.php to learn
about food and housing assistance that is available to you. In addition, there are several resources on and
off campus to help. You can visit the Cougar Pantry in the Stern Center (2nd floor), a student-run food
pantry that provides dry-goods and hygiene products at no charge to any student in need. Please also
consider reaching out to Professor ABC if you are comfortable in doing so.

**Inclusion:** The College of Charleston offers many resources for LGBTQ+ students, faculty, and staff
along with their allies.

- [Preferred Name and Pronoun Information](#)
- [On Campus Gender Inclusive facilities](#)
- [Campus Resources](#)
- [College of Charleston Reporting Portals](#)
- [National Resources for Faculty & Staff](#)
- [GSEC Reports](#)
- [Documenting LGBTQ Life in the Lowcountry](#)
- [College of Charleston Quality Enhancement Plan (QEP) Articles about CofC and LGBTQ+ Issues](#)
Grading Scale:

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<tr>
<th>Score Range</th>
<th>Grade</th>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>93 - 100</td>
<td>A</td>
<td>Lab Reports</td>
<td>60%</td>
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<tr>
<td>90 - 92</td>
<td>A-</td>
<td>Quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>87 - 89</td>
<td>B+</td>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>83 - 86</td>
<td>B</td>
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<tr>
<td>80 - 82</td>
<td>B-</td>
<td>Total</td>
<td>100%</td>
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<tr>
<td>78 - 79</td>
<td>C+</td>
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<tr>
<td>75 - 77</td>
<td>C</td>
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</tr>
<tr>
<td>73 - 74</td>
<td>C-</td>
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<td>72</td>
<td>D+</td>
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<td>71</td>
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<td>Below 70</td>
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**Spring 2023 Lab Schedule**

<table>
<thead>
<tr>
<th>Week - Date</th>
<th>Activity</th>
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| 1. Jan 17/18 | Safety in the Lab - Sign safety contract and honor code contract  
Significant Figures |
| 2. Jan 24/25 | Lab #1 – Fundamental Measurements and Sources of Error |
| 3. Jan 31/Feb 1 | Lab #2 – Absorption of Light |
| 4. Feb 7/8 | Lab #3 – Zinc Nanoparticles |
| 5. Feb 14/15 | Lab #4 – Analysis of light sources using UV-Vis Spectroscopy |
| 6. Feb 21/22 | Lab #5 – Molecular Shapes and Polarity |
| 7. Feb 28/ Mar 1 | Lab #6 – Distillation of Components of a ‘Crude Oil’ Mixture  
Mar 7/8 | SPRING BREAK – NO CLASS |
| 8. Mar 14/15 | Lab #7 – Water Purification Methods |
| 9. Mar 21/22 | Lab #8 – Determination of Dissolved Oxygen |
| 10. Mar 28/29 | Lab #9 – Ocean Acidification Impact on the Dissolution of Sea Shells |
| 11. Apr 4/5 | Lab #10 – Nuclear Chemistry |
| 12. Apr 11/12 | Lab #11 Batteries |
| 13. Apr 18/19 | Final Exam |

The syllabus is subject to change by the instructor. All changes will be announced in class and posted on OAKS.