Course Instructor: Thomas McFadden  Office: SSMB Rm 353  Email: tmcfadde@cofc.edu

Office Hours: by appointment for now, and TBA

Course Time and Location:  
W 12:30-3:30 PM (CHEM 111L-07), location: SSMB 141  
F 12:15 PM – 3:15 PM (CHEM 111L-14) location: SSMB 141  
Synchronized online and recorded

Course Description
A laboratory course designed to introduce the student to the application of the scientific method in solving chemical problems and to acquaint him or her with specific tools and techniques used in the chemistry laboratory, while reinforcing and illustrating concepts encountered in lecture.

Co-requisites and Prerequisites
Chemistry 111 is a co-requisite for Chem 111L. If you drop one of the courses, you must drop the other.

Textbook
- Students must purchase a composition book (sewn pages) to serve as their lab notebook.

Personal Protective Equipment
- Safety glasses/googles
- Nitrile gloves
- Lab coat
- Mask or face shield

Required Materials

Technology
- Computer with reliable highspeed internet access, microphone, speakers or headset, and webcam.
- Scientific calculator
- An App such as AdobeScan to scan in multiple pages of handwritten work into a pdf document.

Student Learning Outcomes

Student Learning Outcomes for Chem 111 Lab
- Develop an understanding of the scientific method in a chemistry laboratory setting.
- Employ mathematical calculations to assess acquired data.
- Synthesize laboratory experiments to determine the purpose, results, and conclusions of a scientific study.

Student Learning Outcomes for Natural Sciences General Education Courses *
The sequence CHEM 111/112 and associated labs satisfy the 8-hour natural science requirement of the College. In this sequence
- Students apply physical/natural principles to analyze and solve problems.
- Students explain how science impacts society.

*These learning outcomes will be assessed in the second course of the year-long natural science sequence.
Evaluation of Student Performance

Grading Scale

<table>
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<tr>
<th>Letter Grade</th>
<th>Percentage</th>
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<th>Letter Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>B-</td>
<td>80-82</td>
<td>D+</td>
<td>72</td>
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<tr>
<td>A-</td>
<td>90-92</td>
<td>C+</td>
<td>78-79</td>
<td>D</td>
<td>71</td>
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<tr>
<td>B+</td>
<td>87-89</td>
<td>C</td>
<td>75-77</td>
<td>D-</td>
<td>70</td>
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<tr>
<td>B</td>
<td>83-86</td>
<td>C-</td>
<td>73-74</td>
<td>F</td>
<td>&lt;70</td>
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Laboratory reports
- The format for lab reports, which is discussed in the laboratory manual, needs to be followed. Each week’s lab report will consist of the following sections:
  1. Typed abstract
  2. Data Sheets (from the lab manual)
  3. Answers to Reflection Questions
- Laboratory reports will be due at the beginning of the following laboratory period.
- Late lab reports will receive the following point deduction:
  - 20 % (from start of lab until the end of the day)
  - 30 % (second day)
  - 100 % (thereafter)

Pre-Lab Quizzes
- Pre-lab quizzes will be given during the scheduled class time before students do the experiment. The purpose of the quiz is to prepare you for the current lab and reinforce concepts from the previous week’s experiment.
- Quizzes are given at the beginning of the class period, and it is your responsibility to arrive in lab on time.
- Note: If you come to lab without the appropriate PPE (most often exposed skin around ankles) you will need to correct it after attending the pre-lab lecture, which presents safety protocols and information regarding the current experiment. In such cases you will receive a zero for that week’s quiz.

Lab Notebook: Students are expected to keep a lab notebook, and instructors will check the lab notebook regularly at the beginning and the end of the class period.

Exams: A midterm and final exam will be administered during the scheduled class time. Details will be discussed in class.
Class Policies

All students in Chem 111L must adhere to the policies included in the Lab Manual. These include: the School of Sciences and Mathematics Safety Policy and Procedures, the Policy on Scientific Integrity, and the Procedure for Leaving the Laboratory. Additionally, all students must adhere to the Honor Code and Code of Conduct college policies regarding academic integrity.

Continuity of Learning (for hybrid classes with face-to-face meetings)

- Due to social distancing requirements, 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.

Attendance Policy

- When classes are online, the class will be conducted synchronously during the scheduled time period at Eastern Standard Time, and students are expected to participate online at the time that the class is being taught. Special accommodations will not be made for students who live in different time zones.

- 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 be mastered in subsequent chemistry courses. Thus, attendance in all lab periods is mandatory.

- That being said, do not attend lab if you are sick or under quarantine. Please notify your instructor of your illness by e-mail before the beginning of the scheduled lab period. If you are unable to e-mail the instructor, ask a roommate or family member to e-mail the instructor on your behalf. You are expected to alert your professor about your illness as soon as possible so that alternative arrangements can be made for you.

- Students missing lab due to illness or any other excused absences will be given an alternative online assignment to complete in order to receive credit for that week’s lab. If this assignment is not completed within the allowed time, a grade of zero will be assigned for that week. Alternative assignments will be available either via OAKS or the g.co e-mail account.

Lab Safety

- The safety guidelines are outlined in the manual and will be discussed at the mandatory safety training session, but there are several rules that will be of paramount importance:
  1. Wear clothing that completely covers all skin below your neck. If any skin on your legs, ankles, or feet is not covered completely, you will not be allowed to work in the lab.
  2. No sandals, flip flops, or other open-toed shoes.
  3. Laboratory coats must be worn at all times.
  4. Safety glasses/goggles must be worn at all times when chemicals are in use.
  5. Gloves must be worn when handling chemicals. You will need to purchase nitrile gloves at the bookstore or a pharmacy and bring multiple pairs to lab each week.

- Failure to adhere to safety rules will result in dismissal from the laboratory with a grade of zero for that laboratory period.
Note that this syllabus is subject to change with proper notification by the instructor.

Honor Code and Academic Integrity

One of the core values of the College is academic integrity. This course is conducted under the Honor Code (http://deanofstudents.cofc.edu/policies-and-procedures/honor-code-and-code-of-conduct.php) of the College of Charleston. Students at the College are bound by honor and by their acceptance of admission to the College to abide by the Code and to report violations. Faculty members are required to report violations of the Honor Code or Code of Conduct to the Office of Student Affairs. Conviction of an Honor Code violation in this class will result in the grade of "F" for the course. Please consult the department's Policy on Scientific Integrity (http://chemistry.cofc.edu).

- Plagiarism will not be tolerated. You are responsible for collecting, analyzing, and writing up your own lab report.

  It will be considered academic misconduct to:

  (1) Falsify or use another’s data,

  (2) Use another’s analysis

  (3) Turn in any part of another’s lab report.

- Both parties involved will receive a zero for the work and will be reported to the Honor Board.

Disability/Access Statements

This College abides by section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, please see an administrator at the Center of Disability Services/SNAP, 843.953.1431 or me so that such accommodation may be arranged.

OAKS

OAKS, including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.

Recording of Classes (via ZOOM)

Class sessions will be recorded via both voice and video recording. By attending and remaining in this class, the student consents to being recorded. Recorded class sessions are for instructional use only and may not be shared with anyone who is not enrolled in the class.

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.
Note that this syllabus is subject to change with proper notification by the instructor.

**Center for Student Learning:**
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 or call (843) 953-5635.

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<tr>
<th>Lab Schedule</th>
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<tbody>
<tr>
<td>Week of August 31-September 4</td>
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<tr>
<td>Week of September 7-11</td>
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<td>Week of September 14-18</td>
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<td>Week of September 21-25</td>
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<td>Week of September 28 – October 2</td>
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<td>Week of October 5-9</td>
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<td>Week of October 12-16</td>
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<td>Week of October 19-23</td>
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<td>Week of October 26-30</td>
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| Week of November 2-6 | Election Day on November 3
No lab this week |
| Week of November 9-13 | TBA |
| Week of November 16-20 | TBA |
| Week of November 23-27 | Thanksgiving Holiday starts November 25
No lab this week |
| Week of November 30-December 4 | Final Exam |