Syllabus
Organic and Biochemistry Lab – CHEM 102L – Spring 2017

All sections in Rm 125 SSMB

<table>
<thead>
<tr>
<th>CRN</th>
<th>Sec</th>
<th>Day</th>
<th>Time</th>
<th>Instructor</th>
<th>Email</th>
<th>Prelab Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>20216</td>
<td>01</td>
<td>T</td>
<td>12:30 pm - 3:30 pm</td>
<td>Dr. Amy Rogers</td>
<td><a href="mailto:rogersaL@cofc.edu">rogersaL@cofc.edu</a></td>
<td>SSMB 127</td>
</tr>
<tr>
<td>20217</td>
<td>02</td>
<td>T</td>
<td>4:00 pm - 7:00 pm</td>
<td>Dr. Paul Sessa</td>
<td><a href="mailto:sessap@cofc.edu">sessap@cofc.edu</a></td>
<td>SSMB 127</td>
</tr>
<tr>
<td>22534</td>
<td>03</td>
<td>W</td>
<td>2:15 pm - 5:15 pm</td>
<td>Dr. Amy Rogers</td>
<td><a href="mailto:rogersaL@cofc.edu">rogersaL@cofc.edu</a></td>
<td>SSMB 127</td>
</tr>
<tr>
<td>20218</td>
<td>04</td>
<td>R</td>
<td>12:30 am - 3:30 pm</td>
<td>Dr. Paul Sessa</td>
<td><a href="mailto:sessap@cofc.edu">sessap@cofc.edu</a></td>
<td>SSMB 127</td>
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<tr>
<td>20219</td>
<td>06</td>
<td>R</td>
<td>4:00 pm - 7:00 pm</td>
<td>Dr. Paul Sessa</td>
<td><a href="mailto:sessap@cofc.edu">sessap@cofc.edu</a></td>
<td>SSMB 127</td>
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**Instructor:** Dr. Amy L. Rogers  
Office: Rm 308 SSMB (School of Sci & Math Bldg)  
Phone: (843) 953-7292  
Email: rogersaL@cofc.edu  
Office Hours: Tuesday 9:30 – 11:30 am or by appointment

**Description:** 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 lab course is a co-requisite of the three-credit lecture course. Should either course be dropped, both must then be dropped.

**Learning Outcomes:**
1. Students model the safety strategy learned in this course in everyday life.
2. Students perform simple organic reactions, such as hydrolysis of esters or amides, or the synthesis of aspirin.
3. Students contrast the structure and nomenclature of organic molecules with different functional groups.
4. Students summarize experimental findings and relate the impact of structure of the organic molecules on their physical and chemical properties.

**General Education Student Learning Outcomes:**
1. Students apply physical/natural principles to analyze and solve problems.
2. Students explain how science impacts society.

**General Education Assessment:**
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 in order to empower the individual and enrich society. The Gen Ed assessment will be a portion of the final exam that will count as 3% of your overall lab grade.

**Materials Provided By Student:**
2) approved safety gloves (nitrile)  
3) lab coat  
4) calculator
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Safety: Safety is of prime concern for the sake of each participant in the lab. Our strategy for achieving safe behavior is:

1. Know and follow the Safety Rules;
2. Look for and recognize safety hazards
3. Take proactive steps to minimize the risk of injury from the hazards.

Each Student is responsible for the following:

1. Starting the 1st week of Lab (January 17), students MUST come to every lab properly dressed – including long pants, closed toed shoes, and lab coats – see Safety Policy for more details.
2. Read, understand, and follow the School of Sci & Math’s Safety Policy & Procedures which are reviewed by the Instructor during the 1st week of lab and posted on OAKS or provided as a handout. The link for the Safety Powerpoint Presentation covered in the first lab period can be found on the chemistry department resource page under the Laboratory Safety section at “General Lab Safety (101, 102, 111, 112, 190)”: http://chemistry.cofc.edu/current-students/laboratory-safety/index.php
3. Complete the take-Safety Quiz (Quiz 1) and return it the 2nd week of Lab. Students who have not completed the safety quiz by the 2nd week of lab will not be allowed to enter lab.
4. Identify physical and chemical hazards in each experiment and proactively take action to reduce the risk of injury (see more under Schedule below).

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 St. directly across from the School of Science and Math Building. 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 department grade.

Attendance: Attendance to your section of scheduled lab is required. The grade of "WA" will be used in this course for any student who misses more than three laboratory periods. Students who miss quizzes or labs (including the final exam lab) will be given a grade of "0" for the associated evaluations. You are responsible for learning the required material and performing the required experiments. If you miss a lab due to illness or without prior approval from your instructor you will not be allowed to make up the missed lab. However, if you have a planned absence (due to your official representation of the College off-campus or for another reasonable cause) please let your instructor know well in advance and we will work with you to try to make an accommodation that will allow you to make up the missed lab. In the case of an unusual conflict, lab may be performed by the student during another lab section during THE SAME WEEK if approved in advance by the instructor(s). You may not make up labs due to illness or unscheduled absences. When your final course grade is calculated, your lowest grade in each category will be dropped. With the exception of the final lab, if you miss a lab, grades associated
with that one missed lab will become your dropped grade. If you miss a second lab, grades of “0” will be averaged in to determine your course grade.

**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 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. The student must read, sign and return by the 2nd week of lab the hand-out on *Policy of Scientific Integrity.* Please consult the instructor if you have any questions about the Honor Code or Policy on Scientific Integrity.

**Schedule:** Students 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. To further prepare for each lab experiment, the student will add the following exercise to each Pre-Lab assignment starting the 2nd week of lab:

1. Identify three (3) physical or chemical hazards the Student may encounter in the experiment of the day.
2. Briefly explain how the Student can minimize the risk to each of the three identified hazards.
Lab Reports (62%): The completed Pre-lab assignment must be initialed by the instructor prior to the start of lab; otherwise, the student will not be allowed to conduct the lab exercise. The student must write his/her lab station number next to his/her name and partner’s name(s) at the top of page 1 of the report. The complete lab report is due by the end of each lab. The student will staple together and hand-in the completed lab report to the instructor who will inspect the student’s work-area prior to the student leaving lab. No late lab reports will be accepted.

Final Exam (25%): 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 (5%): 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. The student will begin the semester with a grade of “80” for deportment. The grade will be adjusted down for offenses to proper lab deportment. Up to 20 points will be added to the Deportment grade when the student successfully completes their assigned general lab clean-up duties.

OAKS: Course syllabus and schedule will be posted on OAKS, which can be accessed through the main College of Charleston web site.

SNAP (Special Needs Advising Plan): Any student eligible for and needing academic adjustments or accommodations because of a disability is requested to speak with the professor in a timely manner so that your needs can be addressed. The student must provide the instructor a copy a letter from the SNAP office indicating the student’s registration in SNAP.

Grading Scale:  
<table>
<thead>
<tr>
<th>93 - 100</th>
<th>A</th>
<th>Grading Scheme:</th>
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<tbody>
<tr>
<td>90 - 92</td>
<td>A-</td>
<td>Lab Reports 62%</td>
</tr>
<tr>
<td>87 - 89</td>
<td>B+</td>
<td>Safety Quiz 5%</td>
</tr>
<tr>
<td>83 - 86</td>
<td>B</td>
<td>Deportment 5%</td>
</tr>
<tr>
<td>80 - 82</td>
<td>B-</td>
<td>Final Exam 25%</td>
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<tr>
<td>78 - 79</td>
<td>C+</td>
<td>Gen Ed 3%</td>
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<tr>
<td>75 - 77</td>
<td>C</td>
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<tr>
<td>73 - 74</td>
<td>C-</td>
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<tr>
<td>72</td>
<td>D+</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>D-</td>
<td></td>
</tr>
<tr>
<td>Below 70</td>
<td>F</td>
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CHEM 102 Lab – Sec L01 / CRN 20216 & Sec L03 / CRN 22534
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Jan. 17-19  Read syllabus on OAKS  Syllabus / Safety/Safety Quiz Take Home Given/Dry Lab

Jan. 24-26  Review Lecture Notes on Color  UV/Vis/Maillard Rxn Handout

Jan. 31-Feb. 2  Exp #21 PreLab pg 243  Demo – Exp #21 A.3 - Combustion
Exp #22 PreLab pg 255  Exp #22 - Reactions of Unsaturated Hydrocarbons

Feb. 7-9  Exp #23 PreLab pg 263  Exp #23 - Alcohols & Phenols

Feb. 14-16  Exp #24 PreLab pg 273  Exp #24 – Aldehydes and Ketones

Feb 21-23  Exp #25 PreLab pg 285  Exp #25 – Carboxylic Acids & Esters

Feb. 28-Mar. 2  Exp # 27 PreLab pg 309  Exp #27 - Amines & Amides

Mar. 7-9  **SPRING BREAK**

Mar. 14-16  Exp #30 PreLab pg 343  Exp #30 – Tests for Carbohydrates (omit Part F pg 348)

Mar. 21-23  Exp #31 PreLab pg 357  Exp #31 – Lipids

Mar. 28-30  Review Lecture Notes  Polymers Handout

Apr. 4-6  Exp #33 PreLab pg 379  Exp #33 - Amino Acids - Omit Part B
Exp #34 PreLab pg 389  Exp #34 - Peptides & Proteins - Omit Part D

Apr. 11-13  Exp #26 PreLab pg 297  Exp # 26 – Aspirin & Other Analgesics

Apr. 18-20  Study for Final Exam  **Final Exam**

* In addition to each Pre-Lab assignment listed in the schedule, starting the 2nd week of lab the student will add the following exercise to each Pre-Lab assignment:

1) Identify 3 physical or chemical hazards which the Student may encounter in the experiment of the day;
2) Briefly explain how the Student can minimize the risk from each of the three identified hazards.