Organic & Biological Chemistry Lab Syllabus
CHEM 102L-01 Summer II 2017

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<th>Section</th>
<th>Day</th>
<th>Time</th>
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<tbody>
<tr>
<td>Sec L01</td>
<td>TWR</td>
<td>10:00am – 1:00 pm</td>
<td>SSMB Rm 127/125</td>
<td>30082</td>
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Instructor Information:
Dr. Paul A. Sessa
E-mail: sessap@cofc.edu
Mobile: 843-696-5216
Office: Rm 108 SSMB
Office Hours: M&F 9:45 – 10:30 am & other 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 3-credit lecture course. Should either course be dropped, both must then be dropped.

Materials Provided By Student:
2) approved safety gloves (nitrile)
3) lab coat
4) calculator

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.
   (Assessed during the co-requisite CHEM 102 course).

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 the following:
1. Starting the day of the first lab experiment (Tues July 11th), 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 lab meeting 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, 191)”: http://chemistry.cofc.edu/current-students/resources/index.php

3. Complete the Safety Quiz (Quiz 1) during the 2nd lab meeting (Thurs July 6th). Students who have not successfully completed (score 90 or greater) the Safety Quiz by the 3rd lab meeting (Tues July 11th) 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 Lab Reports and 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 is required for all laboratory periods. The grade of "WA" will be used in this course for any student who misses more than three laboratory periods for ANY reason. If the Student is absent from lab and not excused by the Instructor, a grade of zero will be assigned for all of the exercises (lab report, quiz) completed in that day’s lab. Typical reasons for the Instructor to excuse a Student are:

1. A medical emergency or illness that is documented by a doctor or the Dean of Undergraduate Studies; and,

2. A personal emergency that is documented by the Dean of Undergraduate Studies.

If the Student has such an emergency, the Student must notify the instructor as soon as possible, preferably the same day as the absence. For an excused/missed lab experiment, the instructor will assign the Student a homework project as a substitute for the missed lab. Only two missed labs can be made up in this fashion. For an excused/missed quiz, the instructor will assign a grade for the missed quiz equal to the Student’s grade on the Final Exam.

Lab Reports (55% of final grade):
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. To further prepare for each lab experiment, the student will add the following Hazards Question exercise to each week’s Pre-Lab assignment:

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.

The Student must write their lab station number next to their name and Partner’s name(s) at the top of page 1 of the report. The complete lab report including Pre-Lab assignment for each Student must be stapled together and handed in at the end of each lab. No late lab reports will be accepted. The lowest of the 11 lab report scores will be dropped in calculating the final grade.

Quizzes (15% of final grade):
There will be four (4) regularly scheduled Quizzes (see attached schedule) given at the beginning of the designated lab period. If a Student has a scheduled conflict, the Student may request the Instructor to take the Quiz early. Missed Quizzes cannot be made up for any reason. A missed quiz in which the student is specifically excused by the instructor will be assigned a score equal to the student’s score on the Final Exam. The lowest score of the four quizzes will be dropped in calculating the final grade.

Deportment (5% of final grade):
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.

Final Exam (25% of final grade):
The Final Exam will be given on Wednesday, August 2nd from 9:00 -10:30 am in room 127 SSMB. The final exam will consist of 50 multiple choice questions that will cover all the subject matter included in lab.

Schedule:
Students should refer to the schedule shown below to determine the required 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.

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. However, students are reminded that COPYING ANSWERS FROM OTHER STUDENTS AND USING DATA FROM OTHER TEAMS WITHOUT PERMISSION FROM THEIR INSTRUCTOR IS PROHIBITED. The Student must read by the 2nd lab meeting (Tuesday, July 9th) 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.

OAKS:
Course syllabus, schedule, grades and other important course material 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.

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<th>Grading Scale:</th>
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<tr>
<td>93 - 100</td>
<td>Lab Reports 55 %</td>
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<td>90 - 92</td>
<td>Quizzes 15 %</td>
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<td>87 - 89</td>
<td>Deportment 5 %</td>
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<td>83 - 86</td>
<td>Final Exam 25 %</td>
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<td>80 - 82</td>
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<td>78 - 79</td>
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### Organic & Biological Chemistry Lab Syllabus
#### CHEM 102L-01  Summer II 2017

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<thead>
<tr>
<th>Date</th>
<th>Pre-Lab Assignment**</th>
<th>In-Lab Assignment</th>
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<tr>
<td>Wed Jul 5</td>
<td>Read Syllabus on OAKS</td>
<td>Syllabus / Required Safety Training</td>
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| Thur Jul 6  | Study for Quiz 1 (Safety)  
Read Safety Rules & Policy on Sci Integrity on OAKS | Quiz 1 (Safety)  
Workshop: Bonding & Intermolecular Forces  
(see lecture class PPT 1 Appendix 1A & 1B) |
| Tues Jul 11 | Exp #21 Pre-Lab pg 243-244 | Exp # 21 – Organic Compounds: Alkanes                  |
| Wed Jul 12  | Exp #22 Pre-Lab pg 255 | Exp #22 - Reactions of Unsaturated Hydrocarbons         |
| Thur Jul 13 | See Pre-lab assignment in Polymer Handout on OAKS | Polymers Experiment (see Handout)                      |
| Tues Jul 18 | Study for Quiz #2  
Exp #23 Pre-Lab pg 263 | Quiz #2 – Exps #21, #22, & Polymers  
Exp #23 – Alcohols & Phenols                           |
| Wed Jul 19  | Exp #24 Pre-Lab pg 273 and Exp #25 Pre-Lab pg 285 | Exp #24 – Aldehydes & Ketones (dry lab / substitute Tollens test for Benedicts test)  
Exp #25 – Carboxylic Acids & Esters                    |
| Thur Jul 20 | Exp #27 Pre-Lab pg 309 | Exp #27 – Amines & Amides                              |
| Tues Jul 25 | Study for Quiz #3  
Exp #26 Pre-Lab pg 297 | Quiz #3 – Exps #23, 24, 25 & 27  
Exp #26 – Aspirin & Other Analgesics                   |
| Wed Jul 26  | Exp #31 Pre-Lab pg 357 | Exp #31 – Lipids                                       |
| Thur Jul 27 | Exp #29 Pre-Lab pg 331 and Exp #30 Pre-Lab pg 343 | Exp #30 – Tests for Carbohydrates                      |
| Tues Aug 1  | Study for Quiz #4  
Exp #33 Pre-Lab pg 379  
Exp #34 Pre-Lab pg 389 | Quiz #4 – Exps #26, 29, 30 & 31  
Exp #33 – Amino Acids (omit Part B)  
Exp #34 – Peptides & Proteins (omit Part D)             |
| Wed Aug 2   | Study for Final Exam  
Gen Ed Assignment due | Final Exam 9:00-10:30 AM in Rm 127 SSMB                |

** Each Student will add the following Hazards Question Exercise to each daily Pre-Lab assignment starting with the first experiment on Tues July 11th:
1. List three (3) specific physical or chemical hazards the Student may encounter in the experiment of the day.
2. Briefly explain the actions the Student can take to minimize the risk of injury from each of the three identified hazards.