Syllabus CHEM 102-01
Organic and Biological Chemistry – Summer II 2017

Day/Time: MTWRF 8:00 – 9:45 am  Place: SSMB 127  CRN: 30081

Instructor Information:
Dr. Paul A. Sessa  E-mail: sessap@cofc.edu  Mobile: 843-696-5216
Office: Rm 108 SSMB  Office Hours: Mon & Fri 9:45-10:30 AM & other by appt

Course Description:
This course is part of the Gen Ed sequence and is designed primarily for students who would like an overview of organic and biological chemistry as it relates to the world at large. Students will gain fundamental knowledge of organic compounds including hydrocarbons, alcohols, phenols, amines, amides, aldehydes, ketones, carbohydrates, carboxylic acids, esters, polymers, lipids, amino acids, proteins, enzymes, nucleic acids, and vitamins. Students will use this knowledge base to understand how these respective compounds play significant roles in our lives.

Prerequisite: Chemistry 101 or Chemistry 111. Corequisite: Chemistry 102L. If either one of CHEM 102 or 102L is dropped, then the other must be dropped.

Text: One of three options can be used to access the required textbook: “Chemistry in Context,” McGraw Hill:

1. ISBN 9781259381003 – Loose leaf binder ready version (COLLEGE OF CHARLESTON) CHEM 101/102: PPK Chemistry in Context with 1 year access Connect Plus card


Technical Learning Outcomes:

1. Explain the functional groups, structure, of common organic and biochemical families of compounds.
2. Demonstrate the direct relationship of structure of organic- and bio-chemicals with their function.
3. Summarize the basic biochemical processes of protein denaturation, enzymatic action, protein synthesis from DNA, and metabolism.
4. Characterize the role organic and bio-chemistry has in our world and in our body chemistry.

CHEM 101/101L/102/102L General Education Learning Outcomes:

1. Students apply physical/natural principles to analyze and solve problems.
2. Students explain how science impacts society.
(See Gen Ed Learning Outcomes Assignment later in the Syllabus.)
Responsibilities: The instructor is here to explain the material and help you to the best of his time and ability. However, the burden of learning is upon you, the student. It is expected that for every hour spent in lecture that you will spend a minimum of 2-3 hours of study. In order to succeed, it is necessary for the student to actively participate in learning. So, prepare for class every day. You will be asked to participate in the class discussions. You are always encouraged to ask questions and contribute ideas to 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 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. Projects conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Attendance Policy: Attendance is expected at all classes. Students are responsible for all information presented in class. It is imperative that you attend class and also to arrive promptly. If you arrive late for a quiz, test, or the final exam, instructions will not be repeated nor will you receive additional time to complete the assignment. Please note that an Absence Memorandum from the Office of Undergraduate Studies only verifies your documentation for missing a class. It does not entitle you to make up or be excused from any work, assignment, quiz, or test. Any work missed due to an absence will be given a zero unless the absence is specifically excused by the instructor.

OAKS: Course material, study tools, and additional information will be provided for students on OAKS. You can access OAKS through the College of Charleston MyCharleston website. Go to https://my.cofc.edu/cp/home/displaylogin, login into MyCharleston using your system login ID and password. Once you are in the MyCharleston system, click on OAKS icon at the top of the page, and you will be taken to the OAKS site.
LearnSmart Homework (10% of grade):
The CONNECT on-line interactive learning tool from McGraw Hill (LearnSmart) developed for this course will be the graded homework system used to develop your skills. Students will need to register the first week of classes using the access code that comes with their textbook. There will be four (4) LearnSmart assignments covering Chapters 10, 11, 12 & 13 in the “Chemistry In Context” text. The homework will be graded on a percentage completed basis. Each LearnSmart module will take on average 60 minutes to complete. If you have completed the LearnSmart module for the chapter you will earn a full 100% of the assignment. The LearnSmart modules will close at 11:59 pm on the day they are due. If a student experiences operational problems with the McGraw Hill CONNECT and/or LearnSmart systems, the student should contact the McGraw Hill Customer Support Center at 800-331-5094. The lowest of the student’s four LearnSmart scores will be replaced by the Final Exam score if the Final Exam score is higher. See Schedule of On-Line assignments at end of Syllabus.

Practice Quizzes (0% of grade):
During the semester seven (7) optional no-credit Practice Quizzes will be given using the McGraw Hill online CONNECT system. The quizzes will be based on the lecture material covered in class and assigned readings, and should be used by the student to assess where additional effort is needed to ensure understanding of critical elements in the course material. The quizzes will close at 11:59 pm on the day they are due. See Schedule of On-Line assignments at end of Syllabus.

Tests (55% of grade):
There will be four (4) Tests covering the course material – see Class Schedule for dates and topics covered. Tests can be taken early with the permission of the Instructor. Tests that are missed cannot be made up and will count as zero. The only exception to this is if the Student has a documented, justifiable excuse (as judged by the Instructor), and in this case the Student will be assigned a score on the missed, excused Test equal to their score on the Final Exam. The lowest score on the four Tests will be replaced by the Student’s score on the Final Exam if the Final Exam score is higher than the lowest Test score.

Gen Ed Learning Outcomes Assignment (5% of grade):
The General Education Student Learning Outcomes will be assessed by a two part written assignment (Projects 1 & 2) posted on OAKS and due on the day and time of the Final Exam of this course.

Final Exam (30% of grade):
The Final Exam will be held on Thursday, August 3rd at 9:00 am in room 127 SSMB. The Exam will be completed before 11:00 am. The Exam will be in two parts. The first part will be a cumulative / 70 minute / 80 question / multiple choice / American Chemical Society Standardized test. The second part will be a supplemental 20 question / 30 minute / multiple choice test. Absence from the Final Exam will result in the grade of "X" being assigned which converts to an "F" within 48 hours unless an excused absence has been granted by the dean in the Office of Undergraduate Studies. Requests for an alternate Final Exam time must be processed through the Office of Undergraduate Studies no later than 5 p.m. on the last day of class.
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**Grading Weight:**
- LearnSmart Homework: 10%
- Practice Quizzes: 0%
- Tests: 55%
- Gen Ed Learning Outcomes Assignment: 5%
- Final Exam: 30%

**Grading Scale:**
- A: 92% & above  
- A-: 90 - 91%  
- B+: 87 - 89%  
- B: 82 - 86%  
- B-: 80 - 81%  
- C+: 77 - 79%  
- C: 72 - 76%  
- C-: 70 - 71%  
- D+: 67 - 69%  
- D: 60 - 66%  
- F: below 60%

**SNAP:** Any student eligible for and in need of academic adjustments or accommodations because of a disability is requested to speak with the professor during the first week of classes and to provide documentation indicating the Student’s registration in SNAP.

**Electronics Device Policy:** Electronic devices are allowed in class but the sound must be off unless otherwise specified by the instructor. During tests, exams, and quizzes no electronic devices (except approved calculators) are allowed to be on or in sight, unless otherwise specified by the instructor.

**Email:** Email is considered an official method for communication at the College of Charleston. If a student wishes to have email redirected from their official college issued account to another email address, they may do so, but at their own risk. Having email redirected does not absolve the student from the responsibilities associated with official communication sent to his or her College account. Students are expected to check their College of Charleston official email on a frequent and consistent basis in order to remain informed of College related communications. Checking email on a daily basis is recommended.

**Tips For Success:**
- Attend all classes
- Be an active learner
- Put in 2-3 hrs/day for each 1-hr lecture class period.
- Read textbook & do homework problems after each lecture
- Use resources to study – chapter study goals, class notes, sample problems, homework, end-of-chapter reviews, and key terms in textbook
- When confused, ask for help – from instructor, friends, tutors
- Stay Healthy
- DO NOT FALL BEHIND
Class Schedule

Week 1

Wed Jul 5  Introduction / Syllabus
Ppt 1 – Review: Bonding & Intermolecular Forces
Drop / Add Day

Thurs Jul 6  Ppt 2 – Introduction to Organic Chemistry

Fri Jul 7  Ppt 3 – Hydrocarbons / Saturated

Week 2

Mon Jul 10  Ppt 4 – Hydrocarbons / Unsaturated

Tues Jul 11  Test 1  Ppt 1 – Bonding & Intermolecular Forces
Ppt 2 – Intro to Org Chem
Ppt 3 – Hydrocarbons / Saturated
Ppt 4 – Hydrocarbons / Unsaturated

Wed Jul 12  Ppt 5 – Polymers & Plastics (Chapt 9 Chemistry in Context)

Thur Jul 13  Ppt 5 – cont.
Ppt 6 – Alcohols, Phenols, Thiols & Ethers

Fri Jul 14  Ppt 6 – cont.
Ppt 7 – Aldehydes, Ketones & Chiral Compounds

Week 3

Mon Jul 17  Ppt 7 – cont.

Tues Jul 18  Test 2  Ppt 5 - Polymers & Plastics
Ppt 6 - Alcohols, Phenols, Thiols & Ethers
Ppt 7 – Aldehydes, Ketones & Chiral Compounds

Wed Jul 19  Ppt 8 – Carboxylic Acids & Esters

Thur Jul 20  Ppt 9 – Amines & Amides
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Class Schedule (cont.)

Fri Jul 21  PPT 10 – *Manipulating Molecules & Designing Drugs*  
(Chapter 10 – Chemistry In Context)

Week 4

Mon Jul 24  PPT 10 – cont.  
**Last day to withdraw with s grade of “W”**

Tues Jul 25  **Test 3**  PPT 8 – Carboxylic Acids & Ester  
PPT 9 - Amines & Amides  
PPT 10 - Manipulating Molecules & Designing Drugs

Wed Jul 26  PPT 11 – Nutrition / Food For Thought (Chapt 11 Chemistry In Context)

Thur Jul 27  PPT 11 - cont.

Fri Jul 28  PPT 12 – Genetic Engineering & The Molecules of Life  
(Chapt 12 Chemistry in Context)

Week 5

Mon Jul 31  PPT 12 – cont.

Tues Aug 1  **Last Class Day**  
**Test 4**  PPT 11 - Nutrition/Food For Thought  
PPT 12 - Genetic Engineering & The Molecules of Life

Wed Aug 2

Thur Aug 3  **CHEM 102 Final Exam 9:00–11:00 AM in Rm 127 SSMB**  
Gen Ed Learning Outcomes Assignment due
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On-Line Assignment Schedule

All due at 11:59 pm on date due.
Required assignments shown in **bold**.

<table>
<thead>
<tr>
<th>Date Due</th>
<th>Assignment</th>
<th>Topics</th>
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<tbody>
<tr>
<td>Fri Jul 7</td>
<td>Practice Quiz 1</td>
<td>Bonding &amp; Intermolecular Forces (Ppt 1)</td>
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<td></td>
<td></td>
<td>Intro to Organic Chemistry (Ppt 2)</td>
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<td>Sun Jul 9</td>
<td>Practice Quiz 2</td>
<td>Hydrocarbons / Saturated (Ppt 3)</td>
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<td>Hydrocarbons / Unsaturated (Ppt 4)</td>
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<tr>
<td><strong>Fri Jul 14</strong></td>
<td><strong>LS Chapt 9</strong></td>
<td><strong>Polymers &amp; Plastics</strong> <em>(Chemistry in Context)</em></td>
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<td>Sun Jul 16</td>
<td>Practice Quiz 3</td>
<td>Polymers &amp; Plastics (Ppt 5)</td>
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<td></td>
<td>Alcohols, Phenols, Thiols &amp; Ethers (Ppt 6)</td>
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<tr>
<td>Mon Jul 17</td>
<td>Practice Quiz 4</td>
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<td>LS Chapt 11</td>
<td><strong>Nutrition / Food For Thought</strong></td>
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<tr>
<td>Fri Jul 28</td>
<td>Practice Quiz 6</td>
<td>Nutrition / Food For Thought (Ppt 11)</td>
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<td><strong>Sun Jul 30</strong></td>
<td><strong>LS Chapt 12</strong></td>
<td><strong>Genetic Engineering &amp; The Molecules of Life</strong> <em>(Chemistry in Context)</em></td>
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<tr>
<td>Mon Jul 31</td>
<td>Practice Quiz 7</td>
<td>Genetic Engineering &amp; The Molecules of Life (Ppt 12)</td>
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