

# **INSTRUCTIONAL PACKAGE**

**CHM 211** 

Organic Chemistry I

Fall 2018-Summer 2019

# INSTRUCTIONAL PACKAGE

## **PART I: COURSE INFORMATION**

Effective Term: 2018-2019

COURSE PREFIX: CHM 211 COURSE TITLE: Organic Chemistry I

CONTACT HOURS: 3-3 CREDIT HOURS: 4

#### **RATIONALE FOR THE COURSE:**

Completion of CHM 211 enables the student to gain an appreciation and working knowledge of concepts related to the study of carbon compounds. These principles are approached through the development of problem-solving skills, which helps prepare students for future careers in science fields. Some of the concepts introduced in general chemistry will be expanded upon, while many course topics will be new. Students will also be exposed to organic chemistry through a series of "hands-on" laboratory experiments, which will be beneficial to careers that include scientific research.

#### **COURSE DESCRIPTION:**

This is the first of a sequence of courses that includes nomenclature, structure and properties, and reaction mechanisms of basic organic chemistry. This course is transferable to public senior institutions as part of the South Carolina Commission on Higher Education Statewide Articulation Agreement.

## PREREQUISITES/CO-REQUISITES:

Credit level CHM 111 Minimum Grade of C or Credit level CHM 111 Minimum Grade of TC.

#### **REQUIRED MATERIALS:**

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

BOOKSTORE.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

#### **ADDITIONAL REQUIREMENTS:**

A scientific calculator will be needed for in-class use and for tests.

Laboratory safety glasses will be provided, but students may bring their own pair if desired.

#### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.

WaveNet and D2L email access.

#### **CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

**NETIQUETTE** is the term commonly used to refer to conventions adopted by Internet users on the web, mailing March 2018 ADA

lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit: Online Netiquette.

#### **ACADEMIC DISHONESTY:**

All forms of academic dishonesty, as outlined in the Student Code in the HGTC catalog, will NOT be tolerated and will result in disciplinary action. Anyone caught cheating or committing plagiarism (Defined in the code as: "The appropriation of any other person's work and the unacknowledged incorporation of that work in one's own work offered for credit") will be given a grade of a zero for that assignment and reported to the Senior VP of Academic Affairs, in accordance with the student handbook. A second offense will result in the student being withdrawn from the course with a "WF" and charges being filed with the Chief Student Services Officer.

## **Part II: Student Learning Outcomes**

## **Lecture Student Learning Outcomes and Assessments\*:**

A student will demonstrate an understanding of organic chemical bonding and molecular structure by:

creating Lewis electron-dot structures for various molecules.

applying formal charges to atoms in molecules.

identifying constitutional (structural) isomers, and distinguishing from resonance forms.

naming and determining structures for alkanes, alkenes, alkyl halides and alcohols.

illustrating and interpreting different conformations of alkanes and ranking their relative stabilities.

utilizing the orbital hybridization model of bonding to identify sp<sup>2</sup> and sp<sup>3</sup> carbons.

distinguishing between  $\sigma$ - and  $\pi$ -bonds in organic molecules.

identifying chiral carbons and distinguishing stereoisomers by R-, S- nomenclature.

interpreting Fischer projections in terms of chirality.

distinguishing enantiomers and diastereomers using Fischer projections, wedge-and-dash structures, and R-,S-nomenclature.

#### A student will demonstrate an understanding of organic reactions by:

interpreting mechanisms for S<sub>N</sub>1 and S<sub>N</sub>2 reactions involving alcohols and alkyl halides.

predicting the products of reactions involving interconversion of alcohols/alkyl halides.

predicting relative carbocation and carbon free radical stabilities.

interpreting mechanisms for free radical halogenations.

interpreting mechanisms for E1 and E2 elimination reactions.

distinguishing alkenes by cis/trans and E/Z nomenclature.

utilizing Zaitsev's rule to predict products of alcohol elimination.

utilizing Markovnikov's rule to predict products of alkene addition reactions.

predicting the products of hydroboration-oxidation, halogen addition, and halohydrin reactions.

predicting the outcome of S<sub>N</sub>1 and S<sub>N</sub>2 reactions regarding stereochemistry of products.

outlining reaction sequences needed to prepare various target molecules from given starting materials.

# \*Students – please refer to the Instructor's Course Information Sheet for specific information on assessments and due dates.

## **Lab Student Learning Outcomes:**

Learning outcomes for the lab portion of this course are the Objectives given for each lab in the manual and can be found at the start of each lab. They include hands-on items such as identification and proper use of lab equipment, and various experimental techniques.

# Part III: Grading and Assessment

### **EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\***

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

#### DEPARTMENT OF NATURAL SCIENCES GRADING POLICY

Your grade for this course will be determined solely on the basis of the criteria outlined below. Students will not be allowed to substitute other activities (reports, homework, etc.) to count in place of any of the stated criteria (this means there will be NO extra credit offered). As the tests/exams given in this course are designed to measure the extent to which you have mastered course materials, students should not expect there to be any "curving" of grades.

#### **EVALUATION\***

Lecture 75% Labs <u>25%</u> 100%

#### **GRADING SYSTEM:**

Please note the College adheres to a 10 point grading scale A = 100 - 90, B = 89 - 80, C = 79 - 70, D = 69 - 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

Withdrawal before the sixth day of the term is considered a "drop" and will not show on the official transcript. Withdrawal from the sixth day of the term through the two-thirds point of the term results in a grade of "W." Students who withdraw after the two-thirds point will receive either a grade of a "W" (if passing the course at the time of withdrawal), or the course instructor can assign a grade of "WF" (if the student is not passing the course at the time of withdrawal). Students should discuss their withdrawal plans and the grade they will receive with their instructor prior to withdrawal.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop (<u>ACADEMIC CALENDAR</u>). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

#### Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy

<sup>\*</sup>Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.

may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.** 

**For online and hybrid courses**, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

## **Lecture Attendance:**

For a 15 week course (fall and spring), the allowed number of absences for a MW or TR class is as follows: 4 absences are allowed for lecture, regardless of reason. For a lecture class that meets once a week, the allowed number of absences is two (2). When a student surpasses the allowed number of absences, the student will be dropped automatically from the course with a W or a WF. **Remember**, an absence is an absence, no matter if it is excused or not!

### **Lab Attendance:**

Students are allowed two (2) lab absences for a lab that meets weekly. When a student surpasses the allowed number of absences, the student will be dropped automatically from the course with a W or a WF.

## **Online/Hybrid Attendance:**

Students enrolled in distance learning courses (hybrid and online) are required to maintain contact with the instructor on a regular basis to be counted as "in attendance" for the course. All distance learning students must participate weekly in an Attendance activity in order to demonstrate course participation. Students showing no activity in the course for two weeks (these weeks do not need to be consecutive) will be withdrawn due to lack of attendance.

#### **Lab Attendance for Hybrid Courses:**

Students in hybrid classes in which labs only meet 5 or 6 times during the semester, must attend **all** lab sessions for its entirety. Failure to attend **one** lab will result in immediate withdrawal. Students in hybrid classes where labs meet every week, you are allowed **one** lab absence. When a student surpasses the allowed number of absences, the student will be dropped automatically from the course with a W or a WF.

### Part V: Student Resources



# The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

- 1. Academic coaches for most subject areas, Writing Center Support, and college success skills.
- 2. On-line student success and academic support resources.

Visit the SSTC website: <u>Student Success & Tutoring Center</u> and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.



## **Student Information Center: WaveNet Central (WNC)**

WNC offers to all students the following free resources:

- 1. **Getting around HGTC**: General information and guidance for enrollment!
- 2. Use the Online Resource Center (ORC) for COMPASS support, technology education, and online tools.
- 3. Drop-in technology support or scheduled training in the Center or in class.
- 4. In-person workshops, online tutorials and more services are available.

Visit the WNC website: <u>Wavenet Central</u>. Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

**Student Testing:** (If course is offered in multiple format include this section, delete if only F2F sections are offered.)

Testing in an online/hybrid course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNow, our online proctoring service. To find out more about proctoring services, please visit the <a href="Online Testing">Online Testing</a> section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

# **Disability Services**

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

# **Statement of Equal Opportunity/Non-Discrimination Statement**

Horry Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

# **Title IX Requirements**

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

| Inquiries regarding the non-discrimination policies: |   |
|--|---|
| Student and prospective student inquiries            | Employee and applicant inquiries concerning       |
| concerning Section 504, Title II, and Title IX and   | Section 504, Title II, and Title IX and their     |
| their application to the College or any student      | application to the College may be directed to the |
| decision may be directed to the Associate Vice       | Associate Vice President for Human Resources.     |
| President for Student Affairs.                       |   |
| Dr. Melissa Batten, AVP Student Affairs              | Jacquelyne Snyder, AVP Human Resources            |
| Title IX Coordinator                                 | Section 504, Title II, and Title IX Coordinator   |
| Building 1100, Room 107A, Conway Campus              | Building 200, Room 212A, Conway Campus            |
| PO Box 261966, Conway, SC 29528-6066                 | PO Box 261966, Conway, SC 29528-6066              |
| 843-349-5228   | 843-349-5212                                      |
| Melissa.Batten@hgtc.edu                              | Jacquelyne.Snyder@hgtc.edu                        |