CHEM 2411: Organic Chemistry I

Fall 2018: Section 01
MW 12:30 PM – 1:45 PM; TLC 1301

Instructor: Dr. Partha Ray: Office: TLC 2123; Phone: (678) 839-6023; email: psray@westga.edu


Course Objective: The goal of this course is for you to master the language of organic chemistry and understand its rules and concepts and use these to solve problems relating to the topics below.

Final Grade: 13 Tests: 80%; Final Exam: 20%.

Your lowest test will be dropped. If you miss a test for any reason that will be your drop test. No make-up tests will be given. **You must take the final exam to pass the class.**

Grades: A: 85-100; B: 75-84; C: 60-74; D: 50-59; F: 0-49.

Tests: Cell phones, calculators, and any other electronic device must be stored away and may not be visible during exams. I reserve the right to ask you to sit at an assigned seat in the classroom during exam days.

Strategy: I will not lecture in the traditional manner during class, so it is crucial that you read the chapter to be covered during the class ahead of time. In class, I will answer your questions about material in the chapter and we will work problems together relating to the chapter. Each test will consist of 12 multiple choice questions to be answered in 18 minutes (1.5 minute per question, which is consistent with the ACS final exam). It is my hope that this approach will lead you to a better understanding of the material.

<table>
<thead>
<tr>
<th>Test</th>
<th>Date</th>
<th>Chapters/Topics covered</th>
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<tbody>
<tr>
<td>1</td>
<td>Aug 20</td>
<td>1: Structure and Bonding</td>
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<tr>
<td>2</td>
<td>Aug 27</td>
<td>2: Polar Covalent Bonds: Acids and Bases (7)</td>
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<tr>
<td>3&amp;4</td>
<td>Sept 12</td>
<td>3&amp;4: Stereochemistry of Alkanes and Cycloalkanes (4.9)</td>
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<td>5</td>
<td>Sept 19</td>
<td>5: Stereochemistry at Tetrahedral Centers (4,11,12)</td>
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<td>6</td>
<td>Sept 26</td>
<td>6: An Overview of Organic Reactions (7,8,9,11)</td>
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<tr>
<td>7</td>
<td>Oct 3</td>
<td>7: Alkenes: Structure and Reactivity (1,10)</td>
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<td>8</td>
<td>Oct 10</td>
<td>8: Alkenes: Reactions and Synthesis</td>
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<td>9</td>
<td>Oct 17</td>
<td>9: Alkynes: An Introduction to Organic Synthesis</td>
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<td>10</td>
<td>Oct 24</td>
<td>10: Organohalides</td>
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<td>11</td>
<td>Oct 31</td>
<td>11: Reactions of Alkyl Halides</td>
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<td>12</td>
<td>Nov 07</td>
<td>12: Structure Determination: MS &amp; IR (3,4,5,8)</td>
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<td>13</td>
<td>Nov 14</td>
<td>13: Nuclear Magnetic Resonance Spectroscopy (4,12)</td>
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</tbody>
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Note: Sections **not** covered in class are shown in parentheses

Review for Final Exam: Nov 26, 28, Dec 3, & 5.

Final: Monday, December 10, 11:00 AM – 12:50 PM
The final will be an American Chemical Society Organic Chemistry exam, which consists of 70 multiple choice questions to be answered in 110 minutes. It is a comprehensive exam.

**Scantrons:** You will need a total of 14 scantron forms (large blue form #SC984-E) for the tests and final. Folded or crumpled forms will not be accepted. **These forms will NOT be available in class.**

**Other Notes:** (1) Unsocial behavior such as talking during class or being disruptive will not be tolerated and you will be asked to leave the class. (2) Please remember to silence your cell phones during class. (3) All communications outside of class should be via campus mail (myUWG), and you are expected to check your mail regularly.

**Academic Honesty:**
- All exams will be closed book/closed notes, and will be taken individually.
- During exams you may not use your own paper or other materials except your pencil and scantron.
- Academic dishonesty will not be tolerated. Academic dishonesty includes unauthorized use of any materials, notes, sources of information, electronic equipment, or study aids during the exam. It also includes the unauthorized assistance of any person other than the course instructor during the exam, the unauthorized viewing of another person’s work during the exam, or the unauthorized securing of all or part of any exam before submission by the instructor.
- Violation of academic honesty will generate disciplinary action that may include a course grade of F. A student who is suspected of cheating must confess to all wrong doing at the first opportunity (when first confronted), or risk a harsher penalty. If you believe that there are situations in the course that foster academic dishonesty, please bring them to my attention. Likewise, if you have observed cheating, bring the details to my attention as soon as practical. Insofar as it is possible, your anonymity will be protected.

**Office Hours:** M: 5 – 6 PM T: 1 - 6 PM; W: 2 – 6 PM

**Learning Outcomes**

1. Reason and think analytically in solving problems and making decisions in matters involving organic chemistry. Attainment of this learning outcome will be reflected by the students ability to:
   - Select reagents to accomplish appropriate functional group transformation.
   - Draw the product of a chemical reaction.
   - Indicate the appropriate stereochemistry of organic molecules.

2. Apply a basic understanding of the systematic methods of scientific inquiry, principles and procedures to investigate problems. Attainment of this learning outcome will be reflected by the students ability to:
   - Describe the mechanism of organic reactions.
   - Analyze IR, NMR and Mass Spectral signals to determine the structure of unknown organic molecules.

3. To communicate organic chemistry with clarity.

Successfully complete written and oral assignments, and examinations.

**All Students Please Note:** For important policy information, i.e., the UWG Honor Code, Email, and Credit Hour policies, as well as information on Academic Support and Online Courses, please review the information found in the Common Language for Course Syllabi documentation at [http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf](http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf). Additions and updates are made as institution, state, and federal standards change, so please review it each semester.