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Snail Mail (U.S. Postal Service) Address: Prairie View A&M University
Department of Chemistry
P.O. Box 519
Mail Stop – 2215
Prairie View, TX 77446

Office Hours: Thursday 1pm – 3pm, other times by appointment

Course Location: Room 122 EE O’Banion Science Building
Class Meeting Days & Times: Tuesday-Thursday 9:30 - 10:50am

Course Abbreviation and Number: CHEM2043 P01

Catalog Description: General Organic Chemistry. (3-0) Credit 3 semester hours. For chemistry majors, minors, premedicine, pre-dentistry and engineering majors. Nomenclature, synthesis reaction mechanisms and spectrometric identification of organic compounds.

Prerequisites: CHEM1033, CHEM1043 CHEM2033.
Co-requisites: None


Access to Learning Resources:

PVAMU Library: telephone: (936) 261-1500;
web: http://www.pvamu.edu/pages/3585.asp

University Bookstore: telephone: (936) 261-1990;
web: https://www.bkstr.com/Home/10001-10734-1?demoKey=d

Course Overview:

Students will learn and be tested on elimination reactions, spectroscopic identification of organic compounds, electrophilic and nucleophilic aromatic substitution. Students will also learn and be tested on reactions of benzene and substituted benzene, reactions of carbonyl compounds. They will also obtain knowledge of amino acids, synthetic polymers, heterocyclic compounds and combinational organic synthesis.
Course Objectives Learning Objectives/Accrediting Body American Chemical Society (ACS) Standards Met: A, B, E, F.

Upon completion of this course, students are expected to:

- To obtain knowledge of substitution and elimination reactions at sp3 hybridized carbon.
- Students should be able to determine the structure of organic compounds from mass spectrometry, infrared, ultraviolet/visible, and NMR spectroscopy.
- To obtain knowledge of aromatic compounds, reactions of benzene and substituted benzenes.
- Students should be able to understand reactions of carbonyl compounds.
- To obtain a knowledge of amino acids, synthetic polymers, heterocyclic compounds and combinatorial organic synthesis.

Course Outline

<table>
<thead>
<tr>
<th>Ch.</th>
<th>Topic</th>
<th>Exam</th>
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<tbody>
<tr>
<td>8</td>
<td>Substitution Reactions of Alkyl Halides</td>
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<tr>
<td>9</td>
<td>Elimination Reactions of Alkyl Halides; Competition between Substitution and elimination</td>
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<tr>
<td>10</td>
<td>Reaction of Alcohols, Amines, Ethers, Epoxides, and Sulfur-Containing Compounds. Organometallic Compounds.</td>
<td>1</td>
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<tr>
<td>11</td>
<td>Radicals. Reactions of Alkanes</td>
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<tr>
<td>12</td>
<td>Mass Spectrometry, Infrared Spectroscopy, and Ultraviolet/Visible Spectroscopy</td>
<td>2</td>
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<tr>
<td>13</td>
<td>NMR Spectroscopy</td>
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<tr>
<td>14</td>
<td>Aromaticity. Reactions of Benzene</td>
<td>3</td>
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<tr>
<td>15</td>
<td>Reactions of Substituted Benzenes</td>
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<tr>
<td>16</td>
<td>Carbonyl Compounds I: Nucleophilic Acyl Substitution.</td>
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<tr>
<td>17</td>
<td>Carbonyl Compounds II: Reactions of Aldehydes and Ketones.</td>
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<td></td>
<td>More Reactions of Carboxylic Acid Derivatives. Reactions of α, β-Unsaturated Carbonyl Compounds.</td>
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<td>18</td>
<td>Carbonyl Compounds III: Reactions at the α-Carbon</td>
<td>4</td>
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<tr>
<td>19</td>
<td>More About Oxidation-Reduction Reactions</td>
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<td>20</td>
<td>More About Amines Heterocyclic Compounds</td>
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<td></td>
<td>COMPREHENSIVE</td>
<td>Final</td>
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Course Evaluation Methods:

This course will utilize the following instruments to determine student grades:

Exams – written tests designed to measure knowledge of lab experiments
**Grading Matrix** *(Points will vary according to instructor’s grading system)*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Value (points or percentages)</th>
<th>Total</th>
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<tbody>
<tr>
<td>Exams</td>
<td>4 at 100 points each</td>
<td>400</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200 points</td>
<td>200</td>
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<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>600</strong></td>
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</tbody>
</table>

**Grade Determination:**
- A = 90-100%;
- B = 80 – 89%;
- C = 70-79%;
- D = 60-69%;
- F = 59% or below

**Submission of Selected Assignments:**

*True Outcomes* is a web-based tool that Prairie View A&M University uses for assessment purposes. At least one of your assignments or examinations will be considered an "artifact" (an item of coursework that serves as evidence that course objectives are met) and will be loaded into *True Outcomes*. The assignment/exams(s) to be used as *True Outcomes* artifacts will be identified by your instructor. *True Outcomes* also allows students to electronically post documents that can be used to create an electronic portfolio (e-portfolio) for future employment and/or educational endeavors. More information will be provided during the semester, but for general information, you can visit the *True Outcomes* web site at:

https://trueoutcomes.pvamu.edu/servlet/ToMenu

**Formatting Documents:**

Microsoft Word is the standard word processing tool used at PVAMU. If you’re using other word processors, be sure to use the “save as” tool and save the document in either the Microsoft Word, Rich-Text, or plain text or pdf format.

**Exam Policy**

Exams should be taken as scheduled. All exams count. **No** drop of the lowest score. Only Scratch paper and ACS approved Periodic Table will be provided to students. Students need to bring Calculator, Scantron (blue or green color) and Pencil (No. 2). No makeup examinations will be allowed except under documented emergencies or university business (See Student Handbook). Students with excused absences will be allowed to take make-up exams within a limited period of time and at a time designated by instructor.

Please refer to http://www.pvamu.edu/pages/4771.asp for more details

**Please be advised that syllabus contents may be subject to change by instructor**
University Rules and Procedures:

Disability statement (See Student Handbook):
Students with disabilities, including learning disabilities, who wish to request accommodations in class, should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.

2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.

3. Fabrication: use of invented information or falsified research.

4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else’s words, ideas, or data as one’s own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one’s own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)
The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor’s ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):
Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy:
PRAIRIE VIEW A&M UNIVERSITY • DEPARTMENT OF CHEMISTRY

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student’s course grade being reduced or in assignment of a grade of “F”. Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process
Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Technical Considerations for Online and Web-Assist Courses

Minimum Hardware and Software Requirements:
- Pentium with Windows XP or PowerMac with OS 9
- 56K modem or network access
- Internet provider with SLIP or PPP
- 8X or greater CD-ROM
- 64MB RAM
- Hard drive with 40MB available space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0/plug-ins

Participants should have a basic proficiency of the following computer skills:
  · Sending and receiving email
  · A working knowledge of the Internet
  · Proficiency in Microsoft Word
  · Proficiency in the Acrobat PDF Reader
  · Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette): students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use ADA standards to reference sources.

Technical Support: Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282

Communication Expectations and Standards:
All emails or discussion postings will receive a response from the instructor within 48 hours.
You can send email anytime that is convenient to you, but I check my email messages continuously during the day throughout the work-week (Monday through Friday). I will respond to email messages during the work-week by the close of business (5:00 pm) on the day following my receipt of them. Emails that I receive on Friday will be responded to by the close of business on the following Monday.

**Submission of Assignments:**
Assignments, Papers, Exercises, and Projects will distributed and submitted through your online course. Directions for accessing your online course will be provided. Additional assistance can be obtained from the Office of Distance Learning.

**Discussion Requirement:**
Because this is an online course, there will be no required face to face meetings on campus. However, we will participate in conversations about the readings, lectures, materials, and other aspects of the course in a true seminar fashion. We will accomplish this by use of the discussion board.

Students are required to log-on to the course website often to participate in discussion. It is strongly advised that you check the discussion area daily to keep abreast of discussions. When a topic is posted, everyone is required to participate. The exact use of discussion will be determined by the instructor.

**It is strongly suggested** that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.