



CHEM 2042
Course Title: General Organic Chemistry Lab I
Summer 2016

Instructor: Dr. Yingchun Li
Section # and CRN P50 30059
Office Location: E.E.O'Banion Science Building Room 213
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Office Hours: MTWR 12.50-1.15pm
Mode of Instruction: Face to Face

Course Location: E.E.O'Banion Sci Bldg Room 214
Class Days & Times: MTWR 1.00-4.40pm
Catalog Description: **General Organic Chemistry Laboratory II.** (0-4) Credit 2 semester hours. A laboratory course including qualitative and quantitative investigations focusing on preparation and characterization of organic compounds

Prerequisites: CHEM 2043
Co-requisites:

Required Texts: Brooks / Cole Organic Chemistry Laboratory, 2032-2042

Recommended Texts: PVAMU Library:
phone: (936) 261-1500;
web: <http://www.tamu.edu/pvamu/library/>
University Bookstore:
phone: (936) 261-1990;
web: <https://www.bkstr.com/Home/10001-10734-1?demoKey=d>

Student Learning Outcomes:

| Upon successful completion of this course, students will be able to: | Program Learning Outcome # Alignment | Core Curriculum Outcome Alignment |
|---|--------------------------------------|-----------------------------------|
| 1 Dehydrate Cyclohexanol | | |
| 2 Demonstrate an understanding of Sn1 and Sn2 Reactions | | |
| 3 Nitrate Acetanilide or Methyl Benzoate | | |
| 4 Separate a Mixture of Biphenyl, Benzhydrol, and Benzophenone by Thin-Layer Chromatography | | |
| 5 Identify an Unknown Compound by Infrared Spectroscopy | | |
| 6 Use NMR Spectroscopy to Identify an Unknown compound | | |

Major Course Requirements

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

Exams – written tests designed to measure knowledge of presented course material

Exercises – written assignments designed to supplement and reinforce course material

Lab Experiments – **ability to carry out simple experimental procedures as required**

Class Participation – attendance and participation in class discussions and experimental procedures

| | Course Grade Requirement | Value | Total |
|----|--|--------------|--------------|
| 1) | Lab Experiments (Pre/Post lab Questions) | 100x5 | 500 |
| 2) | Exams | | |
| 3) | Assignments | | |
| 4) | Final Exam | 200 | 200 |
| 5) | Attendance and Participation | 100 | 100 |

Total: 900 points (subject to change at the discretion of the Instructor)

Grading Criteria and Conversion:

A = 90%

B = 80% - 89%

C = 70% - 79%

D = 60% - 69%

F = 59% or below

Detailed Description of Major Assignments:

Assignment Title or Grade Requirement

Description

Project

Lab reports inclusive of answers to pre and post lab questions, and data from experimental results are to be legibly recorded in a lab composition book or typed and put in a folder. The instructor will give you an advance notice as to when your lab reports are due for submission to be graded.

Course Procedures or Additional Instructor Policies

Submission of Assignments:

- All assignments are due at the time given by the instructor

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 format.

Exam Policy

- Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook).
- 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 cell phones are permitted during exams as calculators.
- There should be no expectation of a formula sheet for in class exams. Formulas are only provided during final exam and during in class exams at the discretion of the instructor. Students must be able to recall formulas at the time of an exam.
- Students with excused absences will be allowed to take make-up exams within a limited period of time and at a time designated by the Instructor, You must bring the official/reasonable excuses note to take the makeup test. The reasonable excuse note include but not limited to University letterhead with signature, doctor note, police report, court orders, obituary, etc.

5 WEEK CALENDAR

| | |
|--------------------------|---|
| Week One: Topic | TECH 700 safety |
| Chapter (s): | TECH 714 Studying SN1 and SN2 reactions |
| Assignment (s): | Prelab, postlab in the manual |
| Week Two: Topic | TECH 716 Nitration of Acetanide |
| Chapter (s): | TECH 716 Nitration of Acetanide, Nucleophilic Aromatic Substitution |
| Assignment (s): | Prelab, postlab in the manual |
| Week Three: Topic | TECH 705 Separation of organic compounds by thin layer chromatography |
| Chapter (s): | TECH 705 Separation of organic compounds by thin layer chromatography |
| Assignment (s): | Prelab, postlab in the manual |
| Week Four: Topic | TECH 710: Identifying an Unknown Compound by Infrared Spectroscopy |
| Chapter (s): | TECH 710: Identifying an Unknown Compound by Infrared Spectroscopy |
| Assignment (s): | Prelab, postlab in the manual |
| Week Five: Topic | Using Nuclear Magnetic Resonance Spectroscopy to Identify an Unknown compound |
| Chapter (s): | TECH 711: Using Nuclear Magnetic Resonance Spectroscopy to Identify an Unknown compound |
| Assignment (s): | Prelab, postlab in the manual |

Final Exam

Student Support and Success

John B. Coleman Library

The library and its partners have as their mission "to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service" and to support the University's core values of "access and quality, diversity, leadership, relevance, and social responsibility" through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty.

Center for Academic Support

The Center for Academic Support (CAS) offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Tutoring Center is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library

COMPASS

The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library

Writing Center

The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Location: Hilliard Hall 121

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 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.

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.

TECHNICAL CONSIDERATIONS**Minimum Recommended Hardware and Software:**

- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups

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 (or a program convertible to 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 as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

Technical Support:

Students should go to <https://mypassword.pvamu.edu/> if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

Communication Expectations and Standards:

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. 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.