

University of Central Arkansas

CHEM 2401: Organic Chemistry I *Fall 2019 – Lecture Syllabus*

Professor: Kerry Barnett, Ph.D.
Email: kbarnett@uca.edu
Office: Laney-Manion 303B

Lecture: TR 9:25-10:40 AM
Laney-Manion 104

Lab: ALL LAB meets in Laney-Manion 306

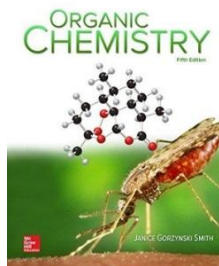
Office Hours: TR 10:45 AM-12:00 PM
or by appointment

CRN (21763) _Thursday 2:40-5:30 PM
CRN (10543) _Friday 8:00-10:50 AM
CRN (10540) _Friday 11:00AM-1:50 PM

Q&A Sessions: MW 3:30-4:30 PM
Laney-Manion 104

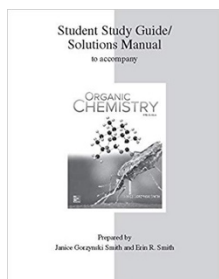
Course Website: classroom.google.com **Course Code:** bef15n2

Required Course Materials:



- *Organic Chemistry, 5th ed.*, Janice Gorzynski Smith, McGraw-Hill, 2017.
(Available for reference check out in the library)
- CHEM 2401 Laboratory Procedures (posted on Google Classroom)
- Laboratory notebook (with carbonless copy paper)
- Safety goggles (ANSI Z87+)
- Molecular Model Kit (available in the bookstore)

Optional Course Materials:



- *Student Study Guide/Solutions Manual for use with Organic Chemistry (5th ed.)*, Janice Gorzynski Smith.
(Available in the library)

“Education is not the learning of the facts, but the training of the mind to think.”
- Albert Einstein -

Course Description

Why study Organic chemistry?

Organic chemistry is the fascinating study of carbon containing molecules. Carbon is found in all living systems and is essential to our daily lives. Learning about organic chemistry will widen your view of molecular science and its world-wide applications. This course will also sharpen skills in critical thinking and problem solving. The skills and knowledge obtained through studying organic chemistry are necessary tools to prepare students for future challenges in the work force, particularly careers in health sciences and scientific industry.

Goals:

- Draw, build, and visualize organic molecules
- Identify and predict behavior of molecules in chemical reactions.
- Identify orbital interactions in molecules and chemical reactions.
- Use arrow-pushing mechanisms to describe reaction selectivity and outcome.
- Predict reaction outcomes using knowledge of structure and mechanism.
- Propose multistep routes for the synthesis of organic compounds.

Course Website:

All course materials and announcements will be posted to the google classroom website. Materials provided include the following: daily problem assignments and answers, take-home quiz assignment and answers, class problem handouts and answers, lecture notes, exam answer keys, course schedule, laboratory procedures and handouts, and other class handouts.

Tips for Success in Organic Chemistry:

- Maintaining a growth mindset and seeking opportunities to improve study habits.
- Use time management skills to set goals and boundaries that work for you.
- Keep course materials and assignments well organized.
- Actively work text-book problems for a minimum of 1 hour per day.
- Use the resources available to you. Specifically, text-book/notes, attending office hours/Q&A sessions, and using free tutoring resources on campus.
- Choose to focus more on your personal learning experience and less on your letter grade.
- Mentally accept the challenges that you face as opportunities to learn.
- Be prepared and willing to put in a substantial amount of effort in this course.

Question & Answer Sessions:

I will host two question and answer sessions held each week on Monday and Wednesday afternoons from 3:30-4:30 pm in Laney-Manion Hall room 104. I will be there waiting and ready to answer questions you have regarding course material. This is a great opportunity to come ask questions about text-book problems and any lingering questions from previous lectures.

Course Assignments and Exams

Daily Problems (100 pts)

Daily problems are homework problems graded for **completeness** and **quality** of work, *NOT* for correctness. Daily problems will be posted to the google classroom website. It is the students' responsibility to self-grade their work for correctness using the answer keys posted on the google classroom website. There will be 20 DP assignments this semester, see schedule for due dates.

Daily Problem Grading Rubric: DPs will be worth 5 pts each. A rough layout of scoring is as follows:

- 4-5 points = full attempt to answer all problems
- 3 points = all problems attempted but missing some work
- 2 points = minor attempt and/or a problem left blank
- 1 point = turned in, but little effort shown

Suggested Reading & Book Problems:

Each daily problems assignment will include a list of suggested pages to read and practice problems from the text-book chapter. Practice problems will not be turned in or graded. It is strongly encouraged that students complete all suggested book problems. Content from any of the suggested book problems will be fair content for exams and take-home quizzes.

Class Problems (75 pts)

Throughout the semester there will be handouts with class problems given in lecture. Participation in class problems will count toward the final grade in the course. Answers to class problems will be posted to the google classroom website after lecture.

Take-Home Quizzes (225 pts)

There will be three take-home quizzes (75 points each) given over the semester. You will have 4-5 days to complete each quiz. Explicit instructions will be provided with each quiz. The questions will be in a similar format as exam questions. Please see the schedule for due dates.

Exams (300 pts)

There will be three in-class exams given throughout the semester. Each exam will be worth (150 pts). The lowest exam grade will be dropped. Please see the schedule for exam dates.

Laboratory (150 pts)

The laboratory portion of the course will contribute 150 pts toward the overall course grade. Lab is intended to be a safe and fun environment to apply the chemistry learned in lecture to a real-time experiment. There will be a separate Laboratory syllabus handed out on the first day of labs. Labs will begin the week of August 29th.

Final Exam (150 pts)

The final exam for this course is scheduled for December 10, 2019 from 8:00 AM – 10:00 AM. The final exam is mandatory and will be cumulative.

Grading Policy

Grading Overview

This course will be graded by total points earned out of total points available. See the table below for a description of point distribution. Grades will be posted on the google classroom website throughout the semester.

Assignment	Points
Daily Problems	100
Class Problems	75
Take-Home Quizzes (75 pts each)	225
Exams (150 each, lowest dropped)	300
Lab	150
Final Exam	150
Total	1,000

Letter Grades

Total Points Earned	Letter Grade
900+	A
800+	B
700+	C
600+	D
Below 600	F

Calculating Grades

$$\text{Overall course grade} = [\Sigma (\text{points earned}) / \Sigma (\text{points available})] * 100$$

Example calculation

Points on DPs = 25/30

Points on Q#1 = 60/75

Points on Exam 1 = 105/150

$$\text{Overall grade} = [(25 + 60 + 105) / (30 + 75 + 150)] * 100 = (190 / 255) * 100 = 74.5\%$$

Fall 2019 Tentative Lecture & Lab Schedule

Week	Tuesday Due			Thursday Due			Lab
1				8/22	Day One & CH 1		NO LABS
2	8/27	CH 1	DP#1	8/29	CH 1	DP#2	Check In & Review
3	9/3	CH 1	DP#3	9/5	CH 2	DP#4	Natural Dyes
4	9/10	CH 2	DP#5	9/12	CH 2	DP#6	IR Spectroscopy
5	9/17	CH 3/4	Q#1	9/19	CH 4	DP#7	TLC
6	9/24	CH 4	DP#8	9/26	CH 5 Exam review	DP#9	¹³ C NMR Spectroscopy
7	10/1	EXAM 1	(CH 1-4)	10/3	CH 5		Stereochemistry
8	10/8	CH 6	DP#10	10/10	CH 6	DP#11	Melting Points
9	10/15	CH 7	Q#2	10/17	FALL BREAK		
10	10/22	CH 7/8	DP#12	10/24	CH 7/8 Exam Review	DP#13	Nucleophilic Substitution
11	10/29	EXAM 2	(CH 5-8)	10/31	CH 9		Green Chemistry
12	11/5	CH 9	DP#14	11/7	CH 10	DP#15	Dehydration of 2-methyl-2-butanol
13	11/12	CH 10	Q#3	11/14	CH 10	DP#16	Epoxidation of Carvone
14	11/19	CH 11	DP#17	11/21	CH 11	DP#18	Alkene Bromination
15	11/26	EXAM 3	(CH 9-11)	11/28	THANKSGIVING DAY		
16	12/3	Final Review	DP#19	12/5	Final Review	DP#20	NO LAB
17	December 10			FINAL EXAM			8:00 AM–10:00 AM

Classroom and University Policies

Attendance Policy

There is no formal attendance policy for this course. Your attendance will provide you the best chance of doing well. In addition, you will only receive credit for the in-class problems if present.

Late and Missed Work

Unexcused missed/late work: Unexcused late take-home quizzes will not be accepted and you will receive a zero. Missed exams cannot be made up. If you miss an exam due to an unexcused absence it will count as your drop grade. For a health (physical or mental) crisis or other emergency situation communicate with the Professor to accommodate for missing/late work. Proper documentation of excused absence will be necessary.

Academic Integrity

The University of Central Arkansas affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved by the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the Student Handbook. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.

Disabilities Statement

The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Disability Resource Center, 450-3613.

Building Emergency

An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most buildings on campus are available at <http://uca.edu/mysafety/bep/>. Every student should be familiar with emergency procedures for any campus building in which he/she spends time for classes or other purposes.

Title IX

If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member (as it relates to "student-on-student" or "employee-on-student"), the faculty member cannot maintain complete confidentiality and is required to report the act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs, and the obligation to conduct an investigation will depend on the specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: <https://uca.edu/titleix>. *Disclosure of sexual misconduct by a third party who is not a student and/or employee is also required if the misconduct occurs when the third party is a participant in a university-sponsored program, event, or activity.

Student Handbook

You are encouraged to familiarize yourself with student policies described in the student handbook. In particular, carefully read and understand those policies pertaining to academic issues and sexual harassment.



2019-20 Student



Laney Manion Hall
Building emergency plan