

Chemistry 3411 Organic Chemistry II

Spring 2020

Class:	T Th	9:25 - 10:40	Laney-Manion Hall 102
Lab: (20440)	T	2:40 - 5:20	Laney-Manion Hall 306
Lab (25983):	W	9:00 - 11:50	Laney-Manion Hall 306
Lab: (30826)	W	2:00 - 4:50	Laney-Manion Hall 306

Instructor: Dr. Richard M. Tarkka
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Office hours: Monday: 3:00 – 4:45 Tuesday: 11:00 – 12:00
Thursday: 12:00 – 1:00. Friday 1:30 – 2:45

You can email me questions - please put "Chem 3411" in the subject line

Required Course Materials:

1. Organic Chemistry, 5th Ed., by Janice G. Smith, McGraw-Hill, 2017
2. UCA lab materials (Free: posted on Blackboard)
3. Laboratory notebook
4. Safety Glasses

Optional Course Materials: Model Kit; Lab Coat or Apron; Solution Manual

Course Description Objectives

This is a continuation of Chemistry 2401. You must have a grade of C or better in Chem 2401 to be enrolled in this class. Furthermore, you *must* have a good understanding of the material taught in that class to be successful. This class is intended for students majoring in science and/or obtaining courses required for pre-medicine, pre-dentistry, pre-pharmacy, and other related health fields. Topics we will explore include, but are not limited to: ^1H , COSY and HMQC NMR techniques; conjugated and aromatic molecules; oxidations and reductions of organic compounds; organic free radical reactions; carbonyl compounds; amines; natural and synthetic polymers.

Objectives

At the end of this semester, you should have a good working knowledge of the material covered in the Smith textbook as it pertains to the general field of organic chemistry. Students with a passing grade in this course should be able to do well on graduate school entrance exams for organic chemistry, etc. the organic chemistry portions of MCAT, DAT, PCAT, I also want my students prepared to take senior level biochemistry.

Attendance and Make-Up Work: Students are expected to attend all lectures and labs. A student missing multiple classes without contacting me to give me a valid reason may be dropped for non-attendance. Makeup exams are not given unless you are participating in a conflicting UCA-sanctioned event. If you miss an exam, and contact me promptly with a valid explanation, your other exams will be count more to make up for the loss of points. If you do not contact me promptly or lack a valid reason for missing an exam, a grade of 0 will be assigned. There is a detailed explanation of this protocol posted on blackboard; please read it thoroughly before asking for an explanation.

Writing an Exam Early, Including the Final Exam: Not allowed.

Electronic Devices: Students may not use any electronic devices (cell phones, laptops, calculators, smart watches, etc.) during tests or quizzes for any reason. Doing so will be considered to be cheating.

Cell Phone Policy: Students should turn their cell phones to silent (turn off the vibrate mode) at the start of class and leave them off throughout the entire class. You may access your messages at the break time if there is one.

Schedule: Although we will work through the material at our own pace, past experience shows that we will be pretty close to the schedule set out in this syllabus. You are responsible to keep up with the material. It is strongly recommended that you read approximately the next day's material before each lecture. We will go through chapters 12-25, and 30, of the text book.

Homework: Homework will be assigned, but it will not be collected or graded. It is very strongly recommended that you do, at a minimum, all of the assigned homework in a timely manner (don't cram! It has to worked on regularly). It is the only way you can check your understanding of the material. Many of the exam and quiz questions come from the homework.

Grading

<u>3 tests</u>	100 points each
<u>1 final exam</u>	200 points
<u>5 Quizzes</u>	100 points (25 points/quiz, lowest score dropped, One quiz will be take home)
<u>Labs</u>	240 points

TOTAL: you will graded on a total of 840 available points

"Extra Credit" is not available

Note: Questions relating to your laboratory exercises will be on your exams.

Tentative Grading Scale

A: >756; B: 672 – 755; C: 588 – 671; D: 504 – 587 F: > 504

Chem 3411 Syllabus, Tarkka, Spring 2020
AVID: UCA is dedicated to Academic Vitality, Integrity, and Diversity.

SCHEDULE CHEM 3411 SPRING 2020

TUESDAY		LAB EXERCISE	THURSDAY	
<i>In addition to downloading the modules, you should also download the table of due dates, checklist/rubric, and lab policies sheet.</i>			Jan 9	Ch. 12
Jan 14	Ch. 12	Check In/Review* (no prelab, notebook not required)	Jan 16	Ch. 12
Jan 21	Quiz 1 Ch. 14	Cannizzaro Reaction	Jan 23	Ch. 14
Jan 28	Ch. 14	NMR Spectroscopy Dry Lab*	Jan 30	Ch. 15
Feb 4	Ch. 15	Mass Spectrometry* Dry Lab	Feb 6	Test 1
Feb 11	Ch. 16	Diels Alder Reaction Part 1	Feb 13	Ch. 16
Feb 18	Quiz 2 Ch. 17	Diels Alder Reaction Part 2*	Feb 20	Ch. 17
Feb 25	Ch. 18	Electrophilic Aromatic Substitution	Feb 27	Ch. 18
Mar 3	Ch. 18	Heck Reaction	Mar 5	Test 2
Mar 10	Ch. 19	Polymers Part 1	Mar 12	Ch. 19
Mar 17	Ch. 20	Polymers Part 2	Mar 19	Quiz 3 Ch. 20
Mar 24	SPRING BREAK	SPRING BREAK	Mar 26	SPRING BREAK
Mar 31	Ch. 21	Passerini Reaction	Apr 2	Ch. 21
Apr 7	Ch. 21/22	Pechmann Condensation	Apr 9	Ch. 22
Apr 14	Ch. 22	Reductive Amination		April 16 Test 3
Apr 21	Ch. 25	No Lab This Week	Apr 23	Quiz 4 Ch. 30

*DRY LAB The dry labs, including check-in, are worth 10 points each (no quiz, prelab write-up or lab writeup). The others are worth 25 points each (Diels Alder NMR interpretation worth an additional 10 points). See table with due dates and point value for details.

Important Dates: Tuesday, April 28, 8:00 AM; FINAL EXAM Other Important Dates: **January 15:** Last date to register, add classes, change from credit to audit, audit to credit, or drop the course for 100% refund; **January 30:** Final date to drop the course for 75% refund. 0% refund after this date. **March 30:** W deadline; **April 24:** Study Day; **May 2:** Undergraduate Spring Commencement

THE FINE PRINT – MANDATED BY UCA
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.

Americans with Disabilities Act

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 Office of Disability Support Services, 450-3613.

Building Emergency Plan

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 Disclosure

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 those 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.*

Students should familiarize themselves with all policies included in the *Student Handbook*, particularly the following: Sexual Harassment Policy; Academic Policies.