

2401 Organic Chemistry I

Spring 2016

Class:	MWF	8:00 – 8:50	Laney Hall 102
Lab (CRN 20238):	Monday	2:00 – 4:40	Laney Hall 306
Lab (CRN 28256)	Tuesday	10:50 – 1:30	Laney Hall 306

Instructor: Dr. Richard M. Tarkka
Office: 203 Laney Hall
Telephone: 852-5137
email: rtarkka@uca.edu

Office hours:

Monday:	9:00 – 10:00
Tuesday:	3:00 – 4:00
Wednesday:	11:00 – 12:00
Thursday:	9:00 – 10:00
Friday:	9:00 – 10:00

You can email me questions - please put "chem 2401" in the subject line. This is a better way of getting in touch with me than sending a message through blackboard.

Required Course Materials:

1. Organic Chemistry, 4th Ed., by Janice G. Smith, McGraw-Hill, 2014
2. UCA lab materials (Free for download from Blackboard)
3. Laboratory notebook
4. ResponseCard RF LCD Clicker from Turning Technologies
5. Safety Glasses with Side Shields or Goggles. Our department policy is that we will not provide students with safety glasses should they be broken, lost, stolen, or forgotten.
6. Model Kit

Optional Course Materials: Lab Coat or Apron; Solution Manual

Course Description: Intended for students majoring in science and/or obtaining courses required for pre-medicine, pre-dentistry, pre-pharmacy, and other related health fields, this course serves as an introduction to organic chemistry. Topics we will explore include, but are not limited to: structure, nomenclature, and properties of organic molecules; alkanes; alkenes; alcohols; alkyl halides; various types of reactions; how to write out and deduce simple reaction mechanisms; how to develop a multi-step organic synthesis. Prior successful completion of Chemistry 1451 (or an approved equivalent course) is a prerequisite.

My objectives for you: (1) acquire good fundamental skills in elementary organic chemistry as described in the first 11 chapters of the Smith text book so that you can be successful in Organic Chemistry II (Chem 3411); (2) develop good record keeping skills in the organic

chemistry lab; (3) make connections between the structures you draw on paper and the solids and liquids you use in the lab; (4) acquire some basic organic chemistry lab skills.

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 with a "WF" grade. Makeup exams are not given unless you are participating in a conflicting UCA-sanctioned event or military service. If you miss an exam, and contact me promptly with a valid explanation, your overall grade will be based on your performance vs. class average in the other exams. An extremely detailed explanation of the missed test policy, with a worked example, is posted on blackboard in the "other important information" section. *Please read this before contacting about how your grade is affected by a missed test.* If you do not contact me promptly, a grade of 0 will be assigned. If you miss a quiz, that will count as your dropped quiz.

Writing a Test Early, Including the Final Exam: Not allowed. Do not schedule vacations on days when we are having a test. This includes the final exam.

Electronic Devices: Students may not use any electronic devices during tests or quizzes for any reason. This includes calculators, cell phones, smart watches, etc. 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 the first 11 chapters of the textbook.

Homework: Homework will be assigned, but it will not be collected or graded. It is very strongly recommended that you do all of the assigned homework in a timely manner. 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>4 full period tests</u>	100 points each
<u>1 final exam</u>	200 points
<u>Labs</u>	200 points
<u>5 Quizzes</u>	100 points (25 points/quiz, lowest one dropped)

TOTAL: you will be graded on a total of 900 available points

15 Bonus points are available for good attendance. Requirements: You must have fewer than 12 demerits (see below) for being absent or late; you have no unexcused missed lab assignments, you must have handed in all lab materials at the correct time; you must not have any grades of zero for academic misconduct. Note that you either get all of the bonus points or none of them. For example – if you have 8 demerits at the end of the semester, you get all 15 bonus points. If you have 11 demerits, you get all 15. If you have 12, you get none of them.

Demerits: Attendance will be taken with the turning technologies clickers. I will do this about 5 minutes after I start class. Arriving after I take attendance will result in you receiving one demerit. Showing up more than 30 min late will result in you getting 2. Missing an entire class will result in 3 late points. Note: this policy applies to all class meetings, including tests, quizzes, and lab sessions.

Tentative Grade Cut Levels

A: 810+
B: 720+
C: 630+
D: 540+

"Extra Credit" is not available.

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

Grades Distribution from the previous five Chem 2401 fall semester classes (367 students):

GRADE	Spring 2015	Fall 2014	Fall 2013	Fall 2012	Fall 2011	Fall 2010	Total 2010 - 2015
A	14	18	13	12	12	11	80 (22 %)
B	15	8	16	17	9	12	77 (21 %)
C	19	15	18	16	12	9	89 (24 %)
D	17	10	3	5	6	9	50 (14%)
F	4	6	5	2	1	7	25 (7 %)
W	0	6	9	12	10	9	46 (13%)
TOTAL	69	63	64	64	50	57	367 (100%)

A/B: 43%
DFW: 34%

Chem 2401 syllabus, Tarkka, Spring 2016
AVID: UCA is dedicated to Academic Vitality, Integrity, and Diversity.

Schedule CHEM 2401 Spring 2016

LAB FOR THE WEEK	MONDAY	WEDNESDAY	FRIDAY
			January 8 <i>1st day of class</i>
Check In and Policy Review*	January 11 <i>Ch.1</i>	January 13 <i>Ch.1</i>	January 15 <i>Ch.1</i>
No Labs this Week	January 18 <i>MLK DAY</i>	January 20 Quiz 1; Ch.2	January 22 <i>Ch. 2</i>
Natural Dyes	January 25 <i>Ch. 2</i>	January 27 <i>Ch. 3</i>	January 29 <i>Ch.3</i>
IR Spectroscopy*	February 1 <i>Ch.3</i>	February 3 Test 1	February 5 <i>Ch.4</i>
TLC	February 8 <i>Ch.4</i>	February 10 <i>Ch.4</i>	February 12 <i>Ch.4</i>
¹³ C NMR*	February 15 <i>Ch.4</i>	February 17 Quiz 2; Ch. 5	February 19 <i>Ch.5</i>
Stereochemistry*	February 22 Quiz 3; Ch. 6	February 24 <i>Ch.6</i>	February 26 <i>Ch.6</i>
Green Chemistry*	February 29 Test 2	March 2 <i>Ch. 7</i>	March 4 <i>Ch.7</i>
SN1 and SN2 Reactions	March 7 <i>Ch. 7</i>	March 9 <i>Ch. 7</i>	March 11 <i>Ch. 8</i>
No Labs this week	March 14 <i>Ch. 8</i>	March 16 <i>Ch.8</i>	March 18 Test 3
SPRING BREAK	March 21 Spring Break	March 23 Spring Break	March 25 Spring Break
Epoxidation of carvone	March 28 <i>Ch. 9</i>	March 30 <i>Ch. 9</i>	April 1 <i>Ch. 9</i>
Dehydration of an alcohol	April 4 Quiz 4; Ch. 10	April 6 <i>Ch. 10</i>	April 8 <i>Ch. 10</i>
Bromination of stilbene	April 11 <i>Ch.10</i>	April 13 Test 4	April 15 <i>Ch. 11</i>
No Labs this week	April 18 <i>Ch.11</i>	April 20 Quiz 5; Ch.11	April 22 <i>Dead Day</i>

*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. See table with due dates and point values.

IMPORTANT DATES FOR CHEMISTRY 2401 Spring 2016

January 8: First day of class

January 13: Final Day to register, add in to this class, or drop for 100% refund

January 20: Quiz 1

February 3: Test 1

February 17: Quiz 2

February 29: Test 2

March 14: Quiz 3 (Take home) due

March 18: Test 3

March 18: Final Day to Withdraw with a W

March 19 – 27: Spring Break

April 4: Quiz 4

April 13: Test 4

April 20: Quiz 5 (take home) due

April 22: Study Day

April 27: Final Exam, 8:00 AM

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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.