

Syllabus Fall 2017

I. Basic Course Information:

- A. Instructor: Marino Resendiz
- B. Semester: Fall 2017
- C. Instructor's Office Number: SI 4145
- D. Instructor's email: email: marino.resendiz@ucdenver.edu
Phone: (303) 556-5669
- E. Science Department Phone number: (303) 556-3259 If you call this number, please leave a message with the Administrative assistant. **Student concerns with course issues**
- F. Class Meeting times: Lecture & Recitation T/H 5:00-6:50 PM
- G. Office Hours & Availability: Tuesday 12:00 – 1:00 pm – SI 4145
Thursday 12:00 – 1:00 pm – SI 4145

Additional office hours may be scheduled by appointment, please email to suggest a few specific 15 minute time slots that you are available.

Email and/or Canvas is the best way to contact me, however, some chemistry questions are difficult to answer by email. I may respond by suggesting an appointment.

H. Text (required):

Organic Chemistry, Marc Loudon and Jim Parise, ISBN:978-1-936221-34-9, Roberts and Company Publishers; 6th Edition.

While this is the textbook edition from which material will be obtained, the topics from organic chemistry at this level are general. As a consequence, there are many organic chemistry books that contain (and explain) all of the topics and sub-topics that will be covered in this class. If you have access to other book(s) or resources and have questions as to whether they will be useful in this class, ask the instructor as soon as possible. These can serve as substitute of the recommended book.

In particular, the 5th edition of the same book will also be an ideal resource.

Other (optional):

Pushing Electrons, Daniel P. Weeks, ISBN: 0-03-0206936, Saunders College Publishing; 3rd Edition.

The Art of Writing Reasonable Organic Reaction Mechanisms, Robert B. Grossman, Springer, ISBN: 0-387-95468-6.

Chemistry as a Second Language, David Klein, (1st and 2nd semester), ISBN-10: 111801040X | ISBN-13: 978-1118010402.

I. Grading:

Presentation/papers	90
BACON	40
Quizzes	220
2 Midterm exams (150 pts ea.)	300
Final exam (ACS)	150
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Total	800

Grading: Your final course grade will be determined by the percentage of total points that you earn:

A/A-:	90-100%	B+/B/B-:	80-89%	C+/C/C-:	65-79%
D:	50-64%	F:	<50%		

Quiz Dates: Quizzes dates will be announced throughout the course.

Exam Dates: Sep 28 Nov 14

Final Exam: Week of Dec 12-16 (to be set by AHEC). The ACS version of the Final will be used for this exam.

Homework & On-line Resources:

BACON (Biology and Chemistry Online Notes) - To Sign up:

1. Visit learnbacon.com and click 'Sign Up' to create your account. If you already have a BACON account, you can sign in and then follow instruction #2.
2. When prompted enter your own college ID # and this PIN:

CHEM3411MR

The BACON system is simple and automated. After you have signed up, you will receive emails when tutorials become available, in addition to reminders if you have not completed a tutorial as a deadline approaches.

If you encounter any problems related to BACON during the quarter, please email support@learnbacon.com for help.

Worksheets will be provided as practice for quizzes and exams. These will be made available on CANVAS and they will not be graded, however, you are encouraged to use them as additional practice problems.

Presentation / papers: There will be periodical references throughout the course regarding the connections between the material from class and contemporary topics of interest. In this regard, there will be two ½ page assignments due, one in the first third of the semester and one in the second third of the semester (canvas will have a description of expectations and a sample paper for reference). Each paper assignment will account for 25 points max of the total grade point system.

The oral presentation will consist on a 5 min explanation of a topic of your choice that relates organic chemistry to recent events in society. This may be a group or individual assignment (to be announced in class) and this will depend on the number of students presenting and the amount of time left in the semester. The projected date for the presentations will be during the last week of classes. This presentation will be worth 40 points of the total grade point system.

Quizzes: The dates for all quizzes will be announced one class in advance and on Canvas (24 hours prior). It is projected that a total of 8 quizzes will be given throughout the course, however this number may vary and will depend on course progress or unexpected factors.

e-mail: I will answer to e-mails mostly on Tuesdays, Thursdays, and Saturdays. Please plan accordingly.

Tests The topics of Organic Chemistry build upon each other and all tests are cumulative. However, the emphasis of each will be on the most recent material. There will be 2 midterm- and one final-exam, each worth 150 points. It is your responsibility to attend all lectures and there will be NO MAKE-UP TESTS.

Grades: If you find an error on your grade, I encourage you to let me know. You must do so in writing. The deadline for corrections will be given the day the exam is returned. Randomized copies of all the exams will be made – this reduces the risk that a student could change an answer and submit it for a re-grade. In the event of a *campus closure* on the date of a test, it will be given on the next scheduled class period. Failure to take a test (including the final exam) will result in a ZERO grade for that test. **I will not use email to discuss grades.**

Canvas: Canvas will be used for posting exam grades and lecture material. Please make sure that your email address on Canvas is one that you will check regularly. You are responsible for any information posted on Canvas. Some, but not all lecture material, will be posted on Canvas. You are responsible for all material covered in this course regardless of whether I post it on Canvas, when I post it on Canvas, and when you are able to access it on Canvas.

Learning Assistants (LAs): The class will offer a team of two LAs that will work as an additional resource available to every student enrolled in this class. This can enhance your learning experience and should be used as an asset to absorb/dissect any of the material from the class. Each LA will hold office hours on days and times posted on Canvas (subject to change throughout the semester). You are encouraged to attend any of these sessions with questions about the material covered (or to be covered) in class.

The names of the LAs are:

- Austin Skinner (Monday 10-11 am)
- Lamont Sharp (Tuesday 7-8 pm, this may take place in the same room after class)
- Isaac Andrade (Wednesday 1-2 pm)

Office hours will take place at the Academic Building (AB 4018). These times are subject to change throughout the semester and will be updated on canvas, if necessary.

You are expected to be respectful to all LAs and conduct yourself in a professional manner. Failure to do so may result in cancellation of this privilege. Please feel free to bring any concerns or questions to the instructor.

Accessibility: The University of Colorado Denver is committed to providing reasonable accommodation and access to programs and services to persons with disabilities. Students with disabilities who want academic accommodations must register with Disability Resources and Services (DRS), 2514 North Classroom Building, 303-556-3450, TTY 303-556-4766. Their staff will assist in determining reasonable accommodations as well as coordinating the approved accommodations. I will provide approved accommodations, once you provide me with documentation from the DRS. Exams taken at DRS must be taken concurrently with the class. Understand that taking exams at DRS may result in delays in grading or other minor inconsistencies with the rest of the class.

CLAS Incomplete (IW/IF) Policy: Incomplete grades (IW or IF) are NOT granted for low academic performance. To be eligible for an Incomplete grade, students MUST:

- Successfully complete a minimum of 75% of the course
- Have special circumstances beyond their control that preclude them from attending class and completing graded assignments
- Make arrangements to complete missing assignments with the original instructor.

Verification of special circumstances is required.

Ground Rules: To promote a lively, yet orderly class I have certain ground rules.

1. ***Do not ask for an answer key.*** Exams, quizzes, homework assignments, and practice problems are provided as a learning experience. I encourage students to ask questions in lecture and office hours. Students tend to merely look at answers and not attempt the problems themselves when they are given a key. Therefore, I do not provide answer keys.
2. ***Do not ask me to update Canvas with missing slides.*** I do not provide EVERY slide on Canvas that I present in class. This is done intentionally to force students to write things out themselves in class (I think this is the only way to learn mechanisms). If you need more time to take notes in class, I am happy to accommodate.
3. ***If you are absent when I return an exam or quiz, do not ask any questions about that exam or quiz during lecture.*** You are not graded on attendance. However, if you miss a class, the responsibility falls on you to make up that material.
4. ***If you miss a lecture, do not ask any questions about that material during subsequent lectures.*** Doing so means having the remainder of the class slow down to accommodate the fact that you missed a class. If you miss a class it is your responsibility to make up that material.
5. ***Do not ask questions during an exam or quiz about the course material.*** It is OK to ask questions of clarification about the wording of the questions. You may not bring up your answer and ask "is this what you are looking for?"

These ground rules are not meant to stifle interaction. On the contrary, I hope that if everyone in the class follows these rules, the level of dialog will be improved. If you have any concerns about any of these rules, please discuss them with me.

My Academic Dishonesty Policy: 1) Read the CLAS policies below. 2) If I have evidence that you have cheated, I will give you an F in the course and report you to the Academic Ethics Committee. 3) Any student in the University Honors program, the BA/BS-MD program, or seeking departmental honors

should be aware that I will support your removal from these programs if the conditions of the cheating warrant it.

CLAS Academic Dishonesty Policy: Students are required to know, understand, and comply with the CU Denver Academic Dishonesty Policy as detailed in the Catalog and on the CLAS website. Academic dishonesty consists of plagiarism, cheating, fabrication and falsification, multiple submission of the same work, misuse of academic materials, and complicity in academic dishonesty. If you are not familiar with the definitions of these offenses, go to <http://www.ucdenver.edu/academics/colleges/CLAS/faculty-staff/policies/HandlingAcademicDishonesty/Pages/Definition-of-Academic-Dishonesty.aspx> . This course assumes your knowledge of these policies and definitions. Failure to adhere to them can result in possible penalties ranging from failure of this course to dismissal from the University; so, be informed and be careful. If this is unclear to you, ask your professor.

Examples of academic dishonesty include, but are not limited to, the following:

- A. Plagiarism:** Plagiarism is the use of another person's distinctive words or ideas without acknowledgment. Examples include:
 - 1. Word-for-word copying of another person's ideas or words;
 - 2. The mosaic (the interspersing of one's own words here and there while, in essence, copying another's work);
 - 3. The paraphrase (the rewriting of another's work, yet still using their fundamental idea or theory);
 - 4. Fabrication of references (inventing or counterfeiting sources);
 - 5. Submission of another's work as one's own;
 - 6. Neglecting quotation marks on material that is otherwise acknowledged.
- B. Cheating:** Cheating involves the possession, communication, or use of information, materials, notes, study aids or other devices not authorized by the instructor in an academic exercise, or communication with another person during such an exercise.
- C. Fabrication and Falsification:** Fabrication involves inventing or counterfeiting information, i.e., creating results not obtained in a study or laboratory experiment. Falsification, on the other hand, involves the deliberate alteration of results to suit one's needs in an experiment or other academic exercise.
- D. Multiple Submissions:** This is the submission of academic work for which academic credit has already been earned, when such submission is made without instructor authorization.
- E. Misuse of Academic Materials.**
- F. Complicity in Academic Dishonesty:** Complicity involves knowingly contributing to another's acts of academic dishonesty. Examples include:
 - 1. Knowingly aiding another in any act of academic dishonesty;
 - 2. Allowing another to copy from one's paper for an assignment or exam;

Expected Learning Outcomes (Fall 2017)

Upon successful completion of the course:

1. Each student will possess an adequate knowledge base in organic chemistry and sub-disciplines of organic chemistry as defined by the American Chemical Society.
2. Each student will be able to rely on this knowledge base to link more than one chemical principle to solve problems, both qualitatively and quantitatively, individually and in groups.
3. Each student will be able to (a) recognize and define a general problem in any of several sub-disciplines of organic chemistry, and (b) competently solve and express in oral and written form the corresponding solution, adhering to proper chemical conventions.
4. Each student will be able to (a) identify when information is needed to solve a problem, (b) identify and locate appropriate sources of information, and (c) effectively extract and construct scientific meaning from critical reading of written material, including primary, secondary, and instructional literature.
5. Each student will be exposed to and introductory level of writing and presenting scientific knowledge that relates contemporary topics in society to material learned in class.

Class Topics: The topics listed below are meant to show the scope of what this class will cover, but they do not constitute an exhaustive list of what we will study. We will often be a day or more ahead of or behind the syllabus.

Topics:

1. CHEMICAL BONDING AND CHEMICAL STRUCTURE
12. Infrared spectroscopy (sections 12.1-12.4)
2. ALKANES
3. ACIDS AND BASES. THE CURVED-ARROW NOTATION
4. INTRODUCTION TO ALKENES: STRUCTURE AND REACTIVITY
5. ADDITION REACTIONS OF ALKENES
6. PRINCIPLES OF STEREOCHEMISTRY
7. CYCLIC COMPOUNDS: STEREOCHEMISTRY OF REACTIONS
8. INTRODUCTION TO ALKYL HALIDES, ALCOHOLS, ETHERS, THIOLS, AND SULFIDES
9. THE CHEMISTRY OF ALKYL HALIDES
10. THE CHEMISTRY OF ALCOHOLS AND THIOLS
11. THE CHEMISTRY OF ETHERS, EPOXIDES, GLYCOLS, AND SULFIDES
13. NMR

General Schedule

Class Topics: The topics listed below are meant to show the scope of what this class will cover, but they do not constitute an exhaustive list of what we will study. We will often be a day or more ahead of or behind the syllabus. I will announce in class any changes that affect the content of an exam; use this schedule only as a general guide.

General Schedule (Tentative)

Date	Topic of Study	Reading (Chapters)
Aug 22/24	Introduction; Structure/function concepts;	1
Aug 29/31	Lewis structures, bond properties, and resonance	2 and 12 (IR)
Sep 5/7	Acids and Bases / Mechanisms	3
Sep 12/14	Alkenes	4
Sep 19/21	Addition Reactions Of Alkenes	5

Sep 26	Review	
Sep 28	Exam 1	
Oct 3	Principles Of Stereochemistry	6
Oct 5/10	Cyclic Compounds: Stereochemistry Of Reactions	7
Oct 12/17	Alkyl Halides, Alcohols, Ethers, Thiols, & Sulfides/The Chemistry Of Alkyl Halides	8 and 9
Oct 19/24	The Chemistry Of Alkyl Halides	9
Oct 26	The Chemistry Of Alkyl Halides	9
Oct 31		
Nov/2	The Chemistry Of Alcohols And Thiols/	10
Nov 7	The Chemistry Of Alcohols And Thiols/	10
Nov 9	Review	
Nov 14	Exam 2	
Nov 16	Looking at NMR spectra;	13
Nov 20-24	FALL BREAK	
Nov 28/30	Looking at NMR spectra; Shielding, spins & coupling;	13
Dec 5/7	Presentations / Paper / Discussion	11
Dec 11-16	FINALS week	
Dec ?	FINAL EXAM (to be set by AHEC)	

Please read the following administrative policies:

Academic Policies

The following policies, procedures, and deadlines pertain to all students taking courses in the College of Liberal Arts and Sciences (CLAS). They are aligned with the Official University Academic Calendar found on the [Registrar's website](#).

Schedule Verification

It is each student's responsibility to verify that their official registration and schedule of courses is correct in UCDAccess (*not* Canvas) before courses begin and by the university census date. Failure to verify schedule accuracy is not sufficient reason to justify late adds. Access to a course through Canvas is not evidence of official enrollment.

Email

Students must activate and regularly check their official CU Denver email account for university related messages. Note: Canvas is not the location to access your CU Denver email account. Log into <http://www.ucdenver.edu/email/Pages/login.aspx>

Administrative Drops

Students may be administratively dropped if they do not meet the pre- and/or co-requisites for a course as detailed in the UCDAccess registration system. Students may also be administratively dropped from a course if the course syllabus articulates attendance expectations prior to census date and they do not meet those attendance expectations. Please note: this procedure does not apply to all courses and students should not rely upon it; if students plan to no longer complete a course, they are responsible to drop or withdraw from the course.

Late Adds and Late Withdrawals

Late adds (i.e., adding a course after census date) require a written petition, verifiable documentation, and dean's approval via CLAS Advising. Late withdrawals (i.e., withdrawing from one or more full-semester courses after the withdrawal deadline) require a written petition and [Schedule Adjustment Form](#). If late-withdrawing from individual courses, instructor signatures are required. If late-withdrawing from the entire semester, instructor signatures are not required. Contact CLAS Advising (NC 1030 – 303-315-7100) for more information on late adds and late withdrawals.

Co-Requisites and Drops/Withdrawals

Students dropping a course with co-requisite(s) before or by census date must drop the course and co-requisite(s). After census date, students withdrawing from a course with co-requisite(s) before or by the withdrawal deadline must withdraw from the course and co-requisite(s). After the withdrawal deadline, until the late withdrawal deadline, students may be able to withdraw from a course or co-requisite(s) based on instructor permission and approval of a Late Withdrawal Petition.

Waitlists

The Office of the Registrar notifies students via their CU Denver email account if they are added to a course from a waitlist. Students will have access to Canvas when they are on a waitlist, but this does not indicate that the student is officially enrolled or guaranteed a seat in the course. If a student is not enrolled in a course after waitlists are purged, instructor permission is required for the student to enroll in the course. The student must complete an [Instructor Permission to Enroll Form](#) and bring it to the CLAS Advising Office (NC 1030) or have their instructor email it to clasinstructorpermission@ucdenver.edu by census date in order to enroll in the course.

Applicable Forms

Schedule Adjustment Form

Submit to Registrar (SCB 5005)

Purpose:	Approval Signatures Required:	Dates:
Receive an academic overload	Student and CLAS Advising signatures	before Sep. 6 (5pm)
Receive a time conflict override	Student and instructor signatures	before Sep. 6 (5pm)
Designate a course pass/fail or no credit	Student signature	before Sep. 6 (5pm)
Withdraw from an intensive course before the withdrawal deadline	Student signature	Sep. 7 – Oct. 30 (5pm)
Late-withdraw from a course after the withdrawal deadline (Late Withdrawal Petition also required)	Student, instructor, and CLAS Advising signatures	Oct. 30 – Dec. 1 (5pm)
Late-withdraw from <u>all courses</u> in the semester after the withdrawal deadline (Late Withdrawal Petition also required)	Student and CLAS Advising signatures	Oct. 30 – Dec. 1 (5pm)

Instructor Permission to Enroll Form

Submit to CLAS Advising (NC 1030)

Purpose:	Approval Signatures Required:	Dates:
Add a course after the add deadline but before census date	Student and instructor signatures	Aug. 29 - Sep. 6 (5pm)

Late Add and Late Withdrawal Petitions

Visit CLAS Advising (NC 1030) for more information

Purpose:	Approval Required:	Dates:
Petition to add one or more full-semester courses after census date (verifiable documentation required)	Submitted petitions are reviewed by the CLAS Assistant Dean	after Sep. 6
Petition to withdraw from one or more courses after the withdrawal deadline (Schedule Adjustment Form also required)	Submitted petitions are reviewed by the CLAS Assistant Dean	Oct. 30 – Dec. 1 (5pm)

Academic Calendar

August 21	Beginning of Semester – First day of classes.
August 27 (11:59 pm)	Add Deadline – Last day to add or waitlist a course using UCDAccess. After the add deadline, instructor permission on an Instructor Permission to Enroll Form is required to add courses.
August 28 (11:59 pm)	Drop Deadline – Last day to drop a course without \$100 drop fee, including section changes (i.e., changing to a different section of the same course). Students may drop courses using UCDAccess. No Adding of Courses is Permitted Today

	Waitlists Purged – All waitlists are eliminated today. Students should check their schedule in UCDAccess to confirm the courses in which they are officially enrolled. Canvas does not reflect official enrollment.
September 4	Labor Day Holiday – No classes. Campus closed.
September 6 (5 pm)	Final Add Deadline (Instructor Permission Required) Last day to add full-semester courses. To add a full-semester course between the first add deadline and the final add deadline, instructor permission on an Instructor Permission to Enroll Form is required. Students may submit a completed Instructor Permission to Enroll Form to CLAS Advising (NC 1030) or have the instructor email it to clasinstructorpermission@ucdenver.edu . After census date, a written petition, verifiable documentation, and dean’s approval via CLAS Advising (NC 1030 – 303-315-7100) are required to add a full-semester course. If a student’s late add petition is approved, the student will be charged the full tuition amount. College Opportunity Fund (COF) may not apply to courses added late, and these credits may not be deducted from students’ lifetime hours.
Census Date	Final Drop Deadline Last day to drop full-semester courses with a financial adjustment. Each course dropped, including section changes, between the first drop deadline and census date generates a \$100 drop fee. Students may drop courses in UCDAccess. After census date, withdrawal from courses appears on transcripts with a grade of “W,” and no financial adjustment is made. After census date but before the withdrawal deadline, students may withdraw from full-semester courses using UCDAccess (instructor permission is not required).
	Graduation Application Deadline Last day to apply for graduation. Undergraduates are expected to make an appointment to see their academic advisors before census date to apply for graduation. Graduate students must complete the Intent to Graduate and Candidate for Degree forms.
	Pass/Fail, No Credit Deadline – Last day to request No Credit or Pass/Fail grade for a course using a Schedule Adjustment Form .
	Withdrawal Deadline After census date, students may withdraw from full-semester courses using UCDAccess (instructor permission is not required). To withdraw from an intensive course, students may use a Schedule Adjustment Form . Withdrawal from courses appears on transcripts with a grade of “W” and no financial adjustment is made. Students withdrawing from a course with co-requisite(s) should refer to the <i>Co-Requisites and Drops/Withdrawals</i> section on the reverse side of this sheet. After the withdrawal deadline, students may late-withdraw by submitting a Late Withdrawal Petition and Schedule Adjustment Form to CLAS Advising (NC 1030 – 303-315-7100). Contact CLAS Advising (NC 1030 – 303-315-7100) for more information.
November 20 - 26	Fall Break – No classes. Campus open.
November 23	Thanksgiving Day Holiday – No classes. Campus closed.
December 1 (5 pm)	Late Withdrawal Deadline Last day to late-withdraw from one or more full-semester courses. Students may late-withdraw by submitting a Late Withdrawal Petition and Schedule Adjustment Form to CLAS Advising (NC 1030 – 303-315-7100). If late-withdrawing from individual courses, instructor signatures are required. If late-withdrawing from the entire semester, instructor signatures are not required. Contact CLAS Advising (NC 1030 – 303-315-7100) for more information. Students late-withdrawing from a course with co-requisite(s) should refer to the <i>Co-Requisites and Drops/Withdrawals</i> section on the reverse side of this sheet. After the late withdrawal deadline (or after grades are posted, whichever is sooner), only retroactive withdrawals are considered and verifiable documentation is required. Contact CLAS Advising (NC 1030 – 303-315-7100) for more information on retroactive withdrawals.
December 11 - 16	Finals Week
December 16	End of Semester Fall Commencement
December 21	Final Grades Available – Official grades available in UCDAccess and transcripts (tentative). Canvas does not display final grades.
Dec. 25 – Jan. 2	Winter Break – No classes. Campus closed.