CHEM F321 Organic Chemistry I

Fall 2020

Lecture: Online via Blackboard
Recitation: Murie Auditorium, T or R 11:30-1:00 **google doc sign up sheet**
Lab: REIC 241
70459 2:15 – 5:15 W
74064 6:00 – 9:00 R
74062 2:45 – 5:45 R
75765 6:00 – 9:00 R
74063 2:15 – 5:15 F
Prerequisite: Chem F106X with grade C or better

Recitation Instructor
Kriya Dunlap, Ph.D.
Office: West Ridge Research Building (WRRB) 130
Office Hrs: Tuesday 1:30 – 2:30 open zoom meeting or by appt
Phone: (907) 474-2766
Email: kldunlap@alaska.edu

Lecture and Lab Instructor
Thomas Green, Ph.D.
Office: REIC 174
Office Hrs: TBA
Phone: (907) 474-1559
Email: tkgreen@alaska.edu
Lab syllabus TBD

Course Materials

- **Lecture Text:** Wade and Simek, Organic Chemistry 9th Ed
- **Laboratory text:** Padias, A. *Making the Connections: A How-to Guide for Organic Chemistry Lab Techniques, 3rd Ed.*
- Internet/computer access (available in REIC 172)
- **Highly recommended:** Molecular model kit- my favorite is in the UAF bookstore

Course Structure: Coursework will follow topics in the order described on the Tentative Lecture Schedule. Pre-recorded lectures will be available on blackboard organized by chapter section. Homework will be assigned from the textbook and chapter quizzes will be conducted through blackboard. Recitation will be held during scheduled class time. Due to COVID-19 class size restriction, no more than 40 people are allowed in Reichardt lecture hall at any given time. Students can sign up for **ONE** recitation each week. Exams will be held during recitation period. Students will sign up in advance. Lab schedule/syllabus will be handed out during lab sections.

Student Learning Outcomes:

- Identify and draw common functional groups
- Understand fundamental concepts of bonding and acidity
- Name a variety of organic functional groups, including hydrocarbons
- Predict the reactivity of organic compounds involving nucleophilic and electrophilic substitution, elimination and addition mechanisms
- Know common reagents used for hydrocarbon transformation into other functional groups.
- Interpret IR and NMR spectra of organic compounds to arrive at a structure

- Draw and interpret 3D structures of stereoisomers
- Predict and write out mechanisms of reactions based on fundamental concepts of acid/base chemistry (nucleophiles/electrophiles)

Instructor's expectations: Lectures will be available to view at your own convenience. Attendance to one recitation per week is highly advised. If you miss recitation it is up to you to make arrangements to get missed materials. It is strongly recommended that each student read the portion of the textbook that corresponds to the lecture, before viewing the lectures on blackboard, and before coming to recitation.

Recitations: We are introducing recitations this year to accommodate COVID-19 health and safety restrictions. Room capacity has been significantly reduced to accommodate social distancing. Because of this we are not able to find a room that accommodates all students at one time. Therefore, pre-recorded lectures will be available on blackboard for you to watch at your convenience. We will hold recitation during scheduled class time. I have provided a tentative schedule below. You can sign up for **either** Tuesday **OR** Thursday but **not both.** A google doc will be shared with the class that has 39 sign up slots. Students can sign up on a first come first serve bases. A sign up sheet will be available each week and will be posted 1-week in advance. During recitation we will work through problems and you will have an opportunity to ask questions on the homework.

Blackboard: https://classes.uaf.edu. Syllabus, student grades, video lectures, blackboard quizzes, zoom link for office hours, homework and the homework key will all be posted on the UAF Blackboard website. Time sensitive information and reminders will be sent occasionally to all students using blackboard, so it is important that you verify that your email address attached to blackboard is correct and current.

Exams: There will be 2 one-hour exams that will cover material from the textbook chapters. You will be allowed the use of molecular model kits and non-programmable calculators only. You will have the opportunity to sign up for in class exams via a sign up sheet that will be available through google docs. This will be first come first serve. At this time 40 students are allowed to be in Reichardt at one time. There will be 40 sign up spaces available for both Tuesday and Thursday of exam week. Please sign up for one or the other. Come to class on exam day and follow all COVID-19 safety protocols. I will try to keep you informed of changing health and safety procedures as they are released. *Exams cannot be made up unless you arrange a time before the exam and you have a valid excuse.* In the event of an unforeseen emergency, contact me as soon as possible. You may be asked to document your excuse. KEY WORDS: TALK TO ME. In general, no work will be accepted after the final exam. .

Final Exam: The final exam will be held during finals week on Tuesday December, 8th from 11:15 – 2:15 pm. The final exam will be cumulative. More information will be available at a later date pertaining to the final and how it will be administered under the current health and safety guidelines.

Quizzes: There will be a short timed blackboard quiz after completing each chapter. Students will be informed when a quiz is made available. Quiz questions will resemble exam questions and will prepare you for the type of questions that will be on the exam, as well as give you a way to assess your strengths and weaknesses from that chapter. Quizzes will be graded out of 10 points. Quizzes

will be averaged and scaled to 100 points at the end of the semester. You are able to drop your lowest quiz grade. There are no make up quizzes.

Homework: Success in Organic chemistry requires practice working through problems and applying the knowledge you have acquired. Higher achievement on exams is usually a direct result of time spent doing homework assignments in their entirety. Homework for each chapter will take several hours. It will be easier to complete problems as we progress through the class and not wait until the day before it is due. I will provide homework problems from the textbook. I will grade you according to completion. Each will be graded out of 10 points. HW will be averaged and scaled to 100 points at the end of the semester. Questions from the HW and problems done in class will appear on quizzes and exams. Homework can be turned in during recitation, put in my mailbox in Reichardt 194 or emailed to me by the due date. I will accept photos of your homework taken with smart phones and emailed to me at kldunlap@alaska.edu. No late homework will be accepted.

Laboratory: Details on laboratory will be provided at your scheduled laboratory time. Laboratory participation is worth 300 points.

Mobile Devices and Laptops: Mobile devices can be used during recitation. Please turn devices to silent or "vibrate" mode during recitation and lab. Usage of electronic devices that facilitates learning should be used during scheduled class and lab times.

Computer access: Chemistry computer lab (REIC 172) is available for **course related activities** – www.uaf.edu/chem/instrumentation/policies**.** Currently, the Department of Computing and Communications (DCC) maintains two open labs on campus: the Bunnell Lab, and the Node (Rasmussen library). The Node has 24-hour access.

Support Services: There are a large number of resources available to help students that may be having difficulty in the course or with a particular topic. CHEM 321 TAs keep regular office hours, which can be found on the **Chemistry Learning Center** calendar: www.uaf.edu/chem/clc/ and will be posted on Blackboard once available. Tom Green and I both hold regular office hours. Students can also make an appointment to see me for help if office hours do not fit with the student's schedule. **Student Support Services**. The Student Support Services (SSS) program (trio.sss@alaska.edu), located in 512 Greuning (474-6844), provides opportunities for academic development, assists students with college requirements, and serves to motivate students toward successful completion of their degree programs. For more information: 474-6844 www.uaf.edu/sss/

Student Protections and Services Statement: Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans' services, rural student services, etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. As required, if I notice or am informed of certain types of misconduct, then I am required to report it to the appropriate authorities. For more information on your rights as a student and the resources available to you to resolve problems, please go the following site: www.uaf.edu/handbook/.

Disabilities Services: We will work with the Office of Disabilities Services (http://www.uaf.edu/disability/) to provide accommodations for students with disabilities. If you have a disability and require special assistance, please contact the instructor as soon as possible. Students with disabilities must provide documentation of the disability and a written statement indicating any special arrangements that need to be made.

Cheating/Academic Dishonesty: The Chemistry & Biochemistry Department Policy on Cheating is: "*Any student caught cheating will be assigned a course grade of F. The student's academic advisor will be notified of this failing grade and the student will not be allowed to drop the course*." The Department considers performing unauthorized "dry labs" as cheating. Partnering during the lab is acceptable but lab reports must show your own calculations and ideas.

Amending this Syllabus: The instructor may make changes to this syllabus. Any changes will be clearly communicated via email sent to your UAF e-mail account and posted on Blackboard and course website.

Grading:

Quizzes	100 pts
Homework	100 pts
Laboratory	200 pts
Exam (2)	200 pts (100 pts each)
Final Exam	100 pts
Total	700 pts (max.)

Letter Grade	Percentage Grade
A+	94.5 - 100
A	90.5 - 94.4
A-	87.5 - 90.4
B+	84.5 - 87.4
B	80.5 - 84.4
B-	77.5 - 80.4
C+	74.5 - 77.4
C	70.5 - 74.4
C-	67.5 - 70.4
D+	64.5 - 67.4
D	60.5 - 64.4
D-	57.5 - 60.4
F	57.4 or lower

Tentative Schedule

Day	Date	Chapter	Recitation Topic	Schedule depends on progress in class
T	25-Aug	1	Syllabus, Gen Chem Review	Homework and Quiz on chapter 1 Due by 5 pm Monday 8/31
R	27-Aug	1		
T	1-Sept	2	-Acids and Base Functional Groups	Homework and quiz on chapter 2 due by 5 pm Monday 9/7
R	3-Sept	2		
T	8-Sept	3	Structure and stereochemistry of alkanes	Homework and quiz for chapter 3 due by 5 pm Monday 9/14
R	10-Sept	3		
T	15-Sept	5		Homework and quiz for chapter 5 due by 5 pm Monday 9/21
R	17-Sept	5	Stereochemistry	
T	22-Sept			
R	24-Sept		**Exam Review**	
T	29-Sept		**Exam 1** on Chapters 1,2,3,5	
R	1-Oct			
T	6-Oct	6	Alkyl Halides; Nucleophilic substitutions	
R	8-Oct	6		Homework and quiz for chapter 6 due by 5 pm Monday 10/12
T	13-Oct	7 & 8		Homework and quiz for chapter 7&8 due by 5 pm Monday 10/19
R	15-Oct	7 & 8	Alkenes	
T	20-Oct	9	Alkynes	Homework and quiz for chapter 9 due by 5 pm Monday 10/26
R	22-Oct			
T	27-Oct			
R	29-Oct		**Exam 2 Review**	
T	3-Nov			
R	5-Nov		**Exam 2** on chapters 7,8,9,	
T	10-Nov	10 & 11		Homework and quiz for chapter 10&11 due by 5 pm Monday 11/16
R	12-Nov	10 & 11	Alcohols	
T	17-Nov	14	Ethers, Epoxides, and Thioesters	Homework and quiz for chapter 14 due by 5 pm Monday 11/23
R	19-Nov	14		
T	24-Nov	15	Recitation Split into two sections	Homework and quiz for chapter 15 due by 5 pm Monday 11/30
R	26-Nov	**Thanksgiving**	**Break**	
T	1-Dec			
R	3-Dec		**Final Exam Review**	
T	8-Dec		**Final Exam**	11:15 – 2:15