Organic Chemistry I, CHEM F321

4 Credits

Fall 2022

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Course Readings/ Materials

The following materials are *required* for the course and can be purchased.

1. Organic Chemistry, 9th edition, Leroy G. Wade and Jan William Simek, Pearson, 2017. The most economical option is the eText + Mastering instant access. https://www.pearson.com/store/p/organic_chemistry/P100001143844/9780136781776 18-weeks (first semester only) is $75. Two-semesters (24 months) is $125. eText and Mastering: ISBN-13: 9780136781776

2. Mastering Chemistry, digital platform from Pearson for online Homework. See link above.

3. Lab Textbook: Making the Connections3; A How-to-Guide for Organic Chemistry Lab Techniques, 3rd edition, Anne B. Padias, 2015, Hayden McNeil. Available from https://hmpublishing.redshelf.com/app/ecom/book/156287/making-the-connections-3rd-edition-156287-9780738079752-anne-b-padias EISBN13: 9780738079752 ~$26

4. Lab notebook for recording experimental data results, and conclusions. The lab notebook will be supplied by the department and included in the kit. Student Lab Notebook, 2012 Book Factory, Lab-050-7GSS, 50 pages. No cost.

5. Laboratory kit with chemicals and equipment for conducting online experiments. The kit will need to be returned.

6. BACON Tutorials. Go to https://learnbacon.com/ and sign up. The course PIN is **CR@WFZ** . The cost is $6.

A University of Alaska email address is required for all communication in the class. This also provides access to the Canvas system for individual scores and grades.

Technology requirements

A University of **Alaska email address** is required for all communication in the class. This also provides access to the Canvas system for individual scores and grades.

Students must have regular **access to a computer and the Internet to access online materials in Canvas**. Students will be expected to download course material as well as upload assignments. The lectures for this course will be posted in Canvas in the form of recorded videos.

Mastering Homework problems will be assigned using questions from the textbook in coordination with the Mastering digital platform. Mastering will be accessed through Canvas. All students need to purchase the access code and register through Canvas.

The videos will be short, typically no more than 10-15 min, with identified topics. You will be prompted with questions, typically multiple choice or short answer, as you move through video. The video content will correlate with the order of chapters in the textbook, covering Chapters 1-14. Students are expected to watch all videos that are posted.

Course Goals

1. Be able to interpret, explain, and predict the physical and chemical properties of organic molecules based on their molecular structures, functional groups, and reaction conditions.

- Demonstrate how organic chemistry is relevant to other scientific disciplines such as biochemistry and molecular biology.

Instructional Methods

Lectures.

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Course Calendar

Date	Module	Due Dates/Exams	Topic	Laboratory
Aug 29 Aug 31 Sep 2	1 1 1		*Module 1: Structure and Bonding*	No LAB
Sep 5 Sep 7 Sep 9	2 2 2	Labor Day Mastering Intro/Primer	*Module 2: Acids and Bases; Functionalities*	Lab 1: WebMO and Solvents
Sep 12 Sep 14 Sep 16	3			

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Exp 7: Triphenylmethanol and SN1 reaction	Oct 31	Acid Catalysis, SN1 Reaction, melting point, TLC, Recrystallization	6	139-142
Exp 8: Dehydration of an Alcohol	Nov 7	Distillation, drying of solvents mechanism, alkene stability	7	143-159 139-142
Exp 9: Reduction of Camphor	Nov 14	Hydride reduction, stereoisomers, NMR. WebMO	10, 13	77-104

Due Dates for Lab Reports.

All lab reports will be due one week, Monday, after the completion of the experiment,

Experiment	Due date
Exp 1: Safety; Lab Notebook; Calculation of Solvent Properties	[redacted]

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Evaluation

Grades will be posted to Canvas Course Site. Class grades may be adjusted (curved) from the KTQQT\NSL XHMJIZQJ TSQ^ NS YMJ XYZIJSYXè KF[TW

	Points	Percentage	Letter Grade
Exam 1	100	97.0-100.0	A+
Exam 2	100	90.0-96.9	A
Exam 3	100	87.0-89.9	B+
Exam 4	100	80.0-86.9	B
Mastering	250	77.0-79.9	

Faculty members are designated as responsible employees, which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: https://www.uaf.edu/handbook/

Title IX

University of Alaska Board of Regents have clearly stated in BOR Policy that discrimination, harassment and violence will not be tolerated on any campus of the University of Alaska. If you believe you are experiencing discrimination or any form of harassment including sexual