



## **CHEM& 262 Organic Chem II      Syllabus      Summer 2022**

Instructor: Jennie Kong Mayer (please call me Jennie or Prof. Mayer)

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Office Location: S-340 A

Office Hours: MT (5-5:30pm in S314/340A), WTh (7:00-7:30 in S314/340A), F (2-2:30 in S-324)

Course website: <http://bc.instructure.com> (requires login, see below for details)

Meeting times

Lecture:	Section A and B:	MTWThF	10:30AM-2:00PM in S324
Lab:	Section A:	TWThF	7:30AM-10:20AM in S314
	Section B:	MTWTh	2:10PM-5:00PM in S314

### **Course Description**

Chem& 262 is the second quarter of a year-long sequence of organic chemistry for science/engr/pre-professional students. Prerequisite: Chem& 261 with a C or better.

### **Course Objectives**

This course builds on the foundations of CHEM&261 and will cover the physical and chemical properties of the following functional groups: alkynes, radicals, alcohols, ethers, epoxides, aromatic compounds with an emphasis on mechanisms and multi-step synthesis. In addition we will cover spectroscopic techniques. The learning objectives for this course can be found [in the course catalog](#).

**Grades:** There will be a **total of 700 points** this quarter. To calculate your grade at any point, simply divide the points you have obtained by the points possible. Grades are based on the following criteria:

11 Exams (30 pts each x 10 highest = **300 pts, 42.9%**).

Comprehensive Final Exam (**90 pts, 12.9%**)

8 Laboratory sessions (**120 pts, 17.1%**) + Lab notebook (**25 pts, 3.6%**)

Reaction/Mechanisms Portfolio (5x10 pts = **50 pts, 7.1%**)

Chapter outlines + HW problems (10x10pts = **100 pts, 14.3%**)

Canvas Assignment "if you knew me" (**10pts, 1.4%**)

Notifications Assignment (**5 pts, 0.7%**)

Percentage of points earned and corresponding letter grades:

A	95 +	C+	77-79.9
A-	90-94.9	C	73-76.9
B+	87-89.9	C-	70-72.9
B	83-86.9	D	60-69.9
B-	80-82.9	F	below 60

**Canvas (Course Website):** Answer keys and other information will be posted on a Canvas site, which is free. Directions: Go to <http://bc.instructure.com>. Under "courses", find Chem 262 to enter our class site. Or log in here (direct link): <https://bc.instructure.com/courses/2221201>

### **Course Materials**

Required:

- CHEM& 262 Organic Chemistry II Workbook by Jennie Kong Mayer, Version 3 Winter 2020. This is available as a free PDF in Canvas, but I highly recommend you get it printed and bound or use it digitally with tablet so you can fill it in during lecture.

- “Organic Chemistry” 3<sup>rd</sup> edition by David Klein, Wiley, 2017. (Included in Follett Access – everyone has access on day 1 due to payment of tuition.)
- Pavia, Intro to organic lab techniques: A microscale approach, 6th ed, Cengage, 2018
- Model Kit (HGS Model Kit recommended, available from the bookstore.)
- Soft-side safety goggles with splash guards
- A lab composition notebook (thread-bound, ruled or graph paper ok)

Recommended:

- “Organic Chemistry as a Second Language” by David Klein, Vol. I and II. (Any edition)

### **Description of Assignments/Assessments**

**Daily Exams:** There will be 11 exams, each worth 30 points, every day of class except the first and last day (last day will be final exam day). One 3x5 index card will be allowed for notes (front+back). The exam will take place from 10:30-11AM. One lowest score will be dropped. Make-ups can only be scheduled in advance (24 hr notice). A last minute note “I’m not ready” will not be a good excuse! Talk to me asap if you have a positive COVID test result or severe flu-like symptoms and we will make arrangements for you to take exam remotely. It will require a side-view camera, however (using a phone or webcam that can be positioned so).

**Final:** There will be a comprehensive final on **Tuesday, Aug 2** at 10:30AM.

Note: Intensive Chem& 263 begins on Wednesday, Aug 3!

**Mechanisms portfolio, Reaction Map, and other assignments:** These are study aids and practice that you will complete during the course. Descriptions will be provided in class/canvas.

**CHEM&262 portfolio:** You will assemble a portfolio to show what you have learned this quarter. This will include chapter outlines, list of reactions covered, mechanisms and reaction maps.

**Optional Canvas Quizzes.** There will be quiz assignments to complete in groups or outside of class to encourage participation and practice. I strongly recommend these as “practice exams”!

**Chapter outline and end-of-chapter problems (homework):** These will be practice problems from Klein – I expect you to work them out and check answers; I will check for completion

**Workbook notes:** I expect everyone to attend class and use the workbook as your lecture notes. These will not be collected or checked.

### **Information about Laboratory**

**Lab Safety and Hygiene:** Safety is always our primary concern. You are required to:

- Bring and wear goggles for every lab period, unless stated otherwise
- Wear appropriate clothing (no open toed shoes, minimal skin exposure) –No exceptions!!!
- Keep all reagent bottles capped/closed to prevent oxidation and contamination
- Dispose of all waste properly
- Clean up after yourself and leave the lab in better shape than you found it!

Violating any of the above requirements will result in a loss of points. For not wearing appropriate attire, you will not be allowed to do the lab (you will receive a zero). Labs cannot be made up but you may be able to arrange to attend the other lab section if necessary and planned in advance.

**Lab Schedule: See calendar (last page of this document)**

**Pre-Lab Work:** You will not be allowed to use the lab textbook during lab. Any information from the textbook that you think you may need should be in your lab notebook. You will learn how to keep a proper scientific lab notebook and you will be graded on your preparation for lab and documentation of results/data/observation in your notebook, which will be checked during lab and at the end of the quarter. **If you miss a lab, you will get a zero for the prelab/postlab as well.** More details will be provided during your first lab session.

**Lab Report:** Postlab requirements may vary depending on the lab. More details will be provided in lab regarding report format and guidelines.

**Lab Final:** There is no formal lab final but there will be potential lab questions on the cumulative final exam on the last day of class.

### **Participation/Attendance**

It is important to stay connected to the course, topics we cover in class, and keep up with assignments. Please make your best effort to attend class regularly. If you miss class, please feel free to send me a note or ask classmates what was covered so you can catch up. If you can, try to watch my videos for anything you missed or need review on. My YouTube channel is called “Orgotime” and covers the workbook. Missed exams are not automatically made up – see description of daily exams above for details.

### **Information about Laboratory**

**Lab Safety and Hygiene:** Safety is always our primary concern. **When doing labs on campus, you will be required to:**

- Bring and wear goggles for every lab period, unless stated otherwise
- Wear appropriate clothing (no open toed shoes, minimal skin exposure) – **No exceptions!!!**
- Keep all reagent bottles capped/closed to prevent oxidation and contamination
- Dispose of all waste properly
- Clean up after yourself and leave the lab in better shape than you found it!
- I must inspect and sign off on your station when you are ready to leave lab.
- You must wash your hands before you leave!

**Pre-Lab Work (Lab Notebooks):** Starting with Exp 33, students will prepare a lab notebook as part of their prelab work. More details will be provided in Canvas/class before that time. I highly recommend you prepare notebooks over the weekend!

**Lab Experiments:** Mostly we will follow experiments out of Pavia as written with a few exceptions. If you have earlier or later editions of the lab text, try to find the experiment pages from the title of the experiment (experiment numbers change from edition to edition). Let me know if you cannot find the pages you need from your edition!

**Lab Report:** You and your lab partner will collaborate on one lab report, which will be due in Canvas for each experiment. You will be provided with a list of grading criteria (called a rubric). If you satisfactorily complete these requirements, you should be able to earn the full points. More details will be provided during your first lab session. If you do not manage to write the report collaboratively, please email the report to me instead of submitting on Canvas. Always provide the name(s) of those who contribute.

## General Policies

**Late Policy:** The dates listed are suggested to keep you from falling behind and to maximize the practice you need to succeed on exams. If you have trouble submitting an assignment on time due to a hardship, it please see me or let me know, especially if you can let me know in advance. We can work out a timeline for you to complete the assignments and prevent falling behind but do know that the assignments are to help you succeed on exams, so doing them after the exam is not ideal.

**Missed Exams:** If you do not notify me and do not show up for an exam, there is no make-up guaranteed, as all students have one lowest exam score they may drop. I may ask to speak with you about the missed exam and determine a plan to proceed that may differ from giving a zero but it depends on the situation. I need to be fair to others who wish they had extra time to study too – I can't just let some people take exams when they want to. Overlooking exam dates, oversleeping, and wanting more time to study are not excuses for a make-up exam! But please do be honest with me and I will work with you. If you are ill or have a positive Covid test, please contact me asap for accommodations.

**Academic Honesty:** You are expected to write your own lab report and contribute to a shared document with your lab partner. Do not copy or reword someone else's report. If I suspect plagiarism you (and any collaborators) will receive a zero. For exams, you are expected to follow the rules provided on the exam.

**Science Division Policy on Cheating:** You, the student, are expected to conduct yourself with integrity. If you cheat, or aid someone else in cheating, you violate a trust. Cheating includes, but is not limited to, copying answers on tests or assignments, glancing at nearby test papers, swapping papers, stealing, plagiarizing, and illicitly giving or receiving help on exams. If you cheat, the following actions will be taken:

- You will receive a grade of zero on the work where the cheating occurred. This grade cannot be dropped.
- A report of the incident will be sent to the Dean of Students. He/she may file a report in your permanent record of take further disciplinary action such as suspension or expulsion from the college.
- If you feel you have been unfairly accused of cheating, you may appeal. For a description of the due process see WAC 132H-120.

**BC Affirmation of Inclusion:** <http://www.bellevuecollege.edu/inclusion/>

Please be respectful and kind to each other! Disrespectful or offensive behavior will be addressed.

### **Religious Accommodations**

Students who expect to miss assignments because of their religious observance should be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious holidays on which they will be absent, preferably at the beginning of the term. The Request for Accommodations for Reasons of Faith or Conscience Form provides more information about and the steps to request this accommodation.

Students who are absent on days of examinations or class assignments should be offered an opportunity to make up the work without penalty (if they have previously arranged to be absent), unless it can be demonstrated that a makeup opportunity would constitute an unreasonable burden on a member of the faculty. Should disagreement arise over what constitutes an unreasonable burden or any element of this policy, parties involved should consult the program chair, Jennie Mayer, or Dean Ilder Betancourt-Lopez. Policy 2950 Accommodations for Reasons of Faith or

Conscience <http://www.bellevuecollege.edu/policies/id-2950p-2/>

## Campus Resources

**Technology Resources:** I can help with some things so please contact me. You can also try the BC Help Desk. Please contact the Bellevue College ITS Service Desk at (425) 564-4357 (HELP) if you have questions. There is access to Microsoft Office through BC, and Comcast is offering low cost internet. See Canvas Technology page under “Welcome” module for more information.

**Disability Resource Center (DRC):** The Disability Resource Center serves students with a wide array of learning challenges and disabilities. If you are a student who has a disability or learning challenge for which you have documentation or have seen someone for treatment and if you feel you may need accommodations in order to be successful in college, please contact us as soon as possible. The DRC office is located in B 132 or you can call our reception desk at 425.564.2498. Deaf students can reach us by video phone at 425-440-2025 or by TTY at 425-564-4110. . . Please visit our website for application information into our program and other helpful links at [www.bellevuecollege.edu/drc](http://www.bellevuecollege.edu/drc)

**If you are a DRC student, make sure you reach out to me via email to discuss your accommodations.**

### **Science Study Center (SSC, Room S-114, 425-564-2196)**

The Science Study Center is a multi-purpose room where science and math students gather to study, work with models and microscopes, view videos, take advantage of computer assisted learning and more. Faculty use the Study Center for scheduled demonstrations of course materials. They are currently closed.

### **Academic Success Center (aka Tutoring Center) (ASC, Room D-204)**

The ASC is closed but there is online tutoring available! <http://www.bellevuecollege.edu/asc/tutoring/>

### **Counseling Services**

These are tough times for many of us, financially, personally, emotionally. The BC Counseling Center is using a free and secure web-based program called Doxy.Me. This allows you to meet with a BC mental health counselor via video conferencing. Appointments are available Monday-Friday 8:00am – 5:00pm. Go to: <https://bellevuecollege.edu/counseling> or call them at 425-564-5747.

### **Other Offices and Resources:**

[Financial Aid](#) | [United Way Benefits Hub](#) | [The Womens Center and Center for Career Connections](#)  
[Academic Advising](#) | [Flu Team: COVID-19 resource page](#)

For all other concerns and questions that are not addressed in this document, please know I am here to support you and refer you to resources we may have access through Bellevue College. -Jennie

## Schedule for Summer 2022 –

**Check Canvas Announcements for updates and Canvas Calendar for due dates!**

<b>Date</b>	<b>Lecture (In-class activities) in S-324, 10:30-2:00pm</b>	<b>Sections in Klein text (Reference)*</b>	<b>Laboratory Sec A (AM) or B (PM)</b>	<b>NOTES</b>
F 7/15 (Day 1)	Course policies/syllabus Ch 8 QUICK Review of Alkenes Ch 9 Alkynes	9.1-9.11	Sec A – no lab	Review alkenes, mechanisms, one-step reactions. 100% refund by 7/15 <b>Drop w/o W by 7/17</b>
M 7/18 (Day 2)	Ch 10 Radicals	10.1-10.8, 10.10, 10.13,	Lab orientation IR spectroscopy (in workbook, also Klein Ch14.1-14.16)	Nothing to prepare for lab; bring workbook p. 62-67
T 7/19 (Day 3)	Ch 11 Synthesis	11.1-11.7	Exp 33A Oxidation of Borneol to Camphor	50% refund by 7/19
W 7/20 (Day 4)	Ch 12 Alcohols	12.1-12.6	Exp 33B Reduction of Camphor to Isoborneol	
Th 7/21 (Day 5)	Ch 12 Alcohols, continued	12.7, 12.9-12.11, 12.13	Exp 35 – preparation of Grignard reagent Also Part B: Benzoic acid	
F 7/22 (Day 6)	Ch 13 Ethers/epoxides	13.1-13.3, 13.5-13.6, 13.8, 13.10-13.12	Sec A: Exp 35B – finish up	Exp 33 Lab report due @ 11:59pm
M 7/25 (Day 7)	Ch 15 Nuclear Magnetic Resonance (NMR)	15.1-15.8	Sec B: Exp 35B – finish up	
T 7/26 (Day 8)	Continue Ch 15 NMR Ch 14 Mass Spec	15.9-15.12 14.8-14.12	NMR worksheet time (2 hr)	
W 7/27 (Day 9)	Ch 16: Conjugated systems Ch 17 aromatic compounds	16.1-2, 17.1-17.8	Carvone epoxidation (handout)	Exp 35 report due @ 11:59 pm <b>Drop w/ W by 7/27</b>
Th 7/28 (Day 10)	Ch 18 Aromatic Substitution	18.1-18.6	Finish up carvone	
F 7/29 (Day 11)	Finish Ch 18	18.7-18.15	Sec A - Group activity (2 hr)	Dry lab only – no notebook prep
M 8/1 (Day 12)	Review / Practice for final exam		Sec B – Group activity (2 hr)	Carvone report due @ 11:59 pm
T 8/2 (Day 13)	<b>FINAL: Tues 8/2, 10:30-12:20 in S324</b>			Final Exam is cumulative

Final grades will be posted on/by 8/4 or sooner.