



CHEM& 262 Organic Chemistry II Syllabus

Winter 2022

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Office Location: S-340C (or on Zoom when possible)

Office Hours: MF 10:30-11:30, and by appointment using Calendly (Zoom link will be generated)

How we will learn during a pandemic:

This quarter the course will be taught both remotely and in person due to the COVID-19 Pandemic. The quarter will begin completely online due to the rising number of cases and the highly transmissible Omicron variant. We will have to adapt to changing conditions regarding when in-person instruction is allowed.

During the pandemic, I have allowed notes and model kits to be used during exams. That will continue. I have also given each exam in two parts: a short 30-45 min individual portion (you answer the questions on your own, 50%), and a separate 30-60 min group portion (you answer other questions as a team, 50%).

If allowed by Bellevue College, lectures will be in-person on TTh 8:30-10:20 but also on Zoom for those who prefer remote access. If in-person attendance is low (<5 students), notice will be given and the lectures will be online. Lectures are not required but strongly recommended. Those not attending need to watch recordings. All students will post their notes as a weekly assignment.

If allowed by Bellevue College, all students (unless out of state/country) will be expected to attend lab and exams in person on Wed 8:30-11:20. Students who cannot take the exam on campus will need to find an exam proctor for the individual portion of the exam, but can meet on Zoom for the group portion if timing works out with other students.

To maintain social connection off-hours, a Discord space has been set up and maintained by some of the students in the course. I urge you to send messages and support each other through that medium. I am happy to participate in that as well.

As always, I will remain flexible and adjust to the situation we find ourselves in. Everyone has their own unique situation and circumstances. If you have a foreseeable challenge and wish to share it with me, I will do my best to provide resources or an alternate plan or deadlines whenever possible. There are serious issues at play: loss of employment, anxiety about finances and the health of loved ones, and postponed plans. Everybody needs support and understanding in this unprecedented moment, while trying to learn and move forward with your goals.

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 Outcomes

The outcomes of the course are at <https://www.bellevuecollege.edu/classes/All/CHEM%26/262>
We will cover parts of Chapters 9-18 (with specified content outlined in the course materials). More specific course objectives will be provided in the Canvas site!

Course Format

Section A lecture sessions: TTh 8:30-10:20 in person whenever possible (otherwise, in Zoom)

Section A lab session: W 8:30-11:20 for exams or labs, in person

Grading

There will be a **total of 800 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:

3 Exams (drop lowest), 100 pts each x 2 = **200 pts**
Comprehensive Final Exam (Ch 16/17/18 + review), **100 pts**
5 Lab reports x 20 pts = **100 pts**
Miscellaneous assignments = **20 pts (up to 20 pts, could be less)**
10 Chapter Lecture Notes (workbook completion) = **100 pts**
10 highest Canvas quizzes = **100 pts**
10 weekly homework from Klein and/or worksheets, 10pts x 10 = **100 pts**
CHEM&262 Portfolio (list of reactions, maps, and mechanisms) = **50 pts**
Percy Julian Project = **20 pts**
If you knew me (class introduction) = **10 pts**

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): Course information will be posted on a Canvas site (free). Answer keys, deadlines, announcements, and other information will be posted on the Canvas site. Directions: Go to <http://bellevuecollege.edu/canvas>. It will be expected that you check your email daily or every couple of days for announcements pertaining to the course. Use your Bellevue College network ID to sign in. Go to this site if you need to look up your username or reset your password: <https://bellevuecollege.edu/netid/Default.aspx> If you cannot get access, contact me ASAP.

Required Course Materials (also on 2-hr reserve at the library!)

- ❖CHEM&262 Workbook by Jennie Mayer (provided as free PDF in Canvas, print copy available at BC bookstore)
- ❖Pavia, Intro to organic lab techniques: A microscale approach, 4th ed. (PAVIA ISBN:9780495016304)
If you have a different edition, please see the instructor asap.
- ❖Goggles and a lab composition notebook.
- ❖Organic Chemistry by David Klein, 3rd edition – this is accessible in Canvas through “IA Course Materials” – the solutions manual is linked/accessed through the eBook provided! If you have a hardcopy and wish to opt out of the digital version (for partial refund), you must do so by Jan 14 through the BC Bookstore website. Otherwise I strongly recommend that you keep access!

Recommended, in this order: (Organic Chem textbooks DO NOT have answers provided in them!)

- ❖Organic Chemistry as a Second Language (1st semester) by Klein
- ❖Student Solutions Manual for Klein textbook
- ❖Student Study Guide for the American Chemical Society Exam (this exam will be given at the end of CHEM&263) and costs about \$20. Good source of multiple-choice practice problems with solutions: <https://uwm.edu/acs-exams/students/student-study-materials/>

*PLEASE NOTE: DURING THE PANDEMIC, THE DEPARTMENT IS NOT REQUIRING THE ACS STANDARDIZED EXAM IN CHEM& 263.

For practice in Klein, look at WileyPlus or the problems in each chapter (Skill builders + Practice Problems)

Description of Assignments

- **Exams:** There will be 3 midterm exams and a final. See calendar for dates. Each exam will cover material from the previous weeks. There are no exam make-ups unless you can make arrangements with me in advance (more than 48 hours notice). **Missing an exam does not guarantee you a make-up exam.** There will be a comprehensive final on **Tuesday, 3/22 7:30-9:20** am in S324.
- **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.
- **Weekly online quizzes:** There will be quiz assignments to complete in groups during class to encourage participation and attendance. *If you have a special case of missing class, let me know.
- **Weekly homework:** These will be practice problems from Klein – I expect you to work them out and check answers; ask about them in office hours; I will check for completion
- **Weekly workbook notes:** I expect everyone to attend class or watch recordings. You will complete workbook pages and upload photos to show you are caught up with the content.
- **Percy Julian Project:** Percy Julian is a famous steroid chemist, and the first African-American scientist to be inducted into the National Academy of Sciences. There will be an opportunity to learn more about him this quarter through a PBS Nova movie and writing assignment.

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 make it up. If you can, try to watch my videos for anything you missed or need review on. My YouTube channel is called "Orgotime".

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 35, students will prepare a lab notebook as part of their prelab work. More details will be provided in Canvas/class before that time.

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: During the pandemic, I have been especially flexible on due dates. 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.

Missed Exams: Exams are very difficult to make up since part of them is done in groups. It's best if you can let me know ahead of time (at least 48 hours in advance) if you cannot attend an exam. 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 am very flexible if I know you are struggling due to factors out of your control but I may not provide a make-up and instead I may suggest using the final exam as your missing score. 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.

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!

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

Science Study Center (SSC, Room S-114, 425-564-2196) – CLOSED FOR SUMMER QUARTER:
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)- CLOSED FOR SUMMER QUARTER

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

Tentative Schedule for Winter 2022 –

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

Week of	Lecture (In-class activities) in S-324 (or Zoom) on Tuesdays and Thursdays	Sections in Klein text (Reference)*	Laboratory (Wed 8:30am in S314)	Exams on Wed (unless noted otherwise!)
Jan 3	1st class day: Jan 4 *campus closed; TBD* Ch 8 Review of Alkenes Start Ch 9 Alkynes;	9.1-9.11	ONLINE ONLY: Review alkenes	
Jan 10	Continue Ch 9 Alkynes Start Ch 10 Radicals	10.1-10.8, 10.10, 10.13,	Lab orientation/safety Pavia: Exp 3 A (in person)	
Jan 17	Finish Ch 10 Radicals Start Ch 11 Synthesis	11.1-11.7	Pavia: Exp 4 B/D (in person)	
Jan 24	Finish Ch 11 Synthesis			Discuss lab notebook prep: Exam #1 covering Ch 8 review, Ch 9/10
Jan 31	Ch 12 Alcohols Start Ch 13 Ethers/epoxides	12.1-12.7, 12.9- 12.11, 12.13	Exp 35A Oxidation of Borneol to Camphor	
Feb 7	Finish Ch 13 Ethers/epoxides Start Ch 14/15 Thu 2/10- Closed; No classes	13.1-13.3, 13.5- 13.6, 13.8, 13.10-13.12	Exp 35B Reduction of Camphor to Isoborneol	
Feb 14	Ch 14 IR / Mass Spectroscopy Ch 15 Nuclear Magnetic Resonance (NMR)	14.1-14.16 15.1-15.12 (optional 15.13)		Exam #2 on Ch 11/12/13
Feb 21	Monday: Closed/No office hour Continue Ch 15 NMR		Exp 38 and 38A Grignard synthesis	
Feb 28	Ch 16: Conjugated systems/UV Vis and color Ch 17 aromatic compounds	16.11-16.13 17.1-17.8 (optional 17.7)	Exp 38 and 38A Grignard synthesis	
Mar 7	Start Ch 18 Aromatic Substitution	18.1-18.15		Exam #3 on Ch 14/15
Mar 14	Finish Ch 18 Friday 3/18 – no classes		Exp 27 Relative reactivities of aromatic	
Mar 21	Review / Practice for final exam (optional time on 3/21 at 9:30- 10:20) FINAL: Tues 3/22, 7:30-9:20			Final Exam: 50% Ch16-18 and 50% cumulative

Final grades will be posted by 3/28 or sooner.