

CHEM 12A, Fall 2026 Syllabus

GENERAL INFORMATION

Welcome to CHEM 12A (CHEMD012A): Organic Chemistry I. This syllabus is designed to provide you with the information, policies, expectations, and resources you will need to be successful in the course. Please read the syllabus carefully at the beginning of the quarter and refer back to it throughout the course. You are responsible for understanding the course policies, assessment requirements, important deadlines, and expectations described here.

I. INSTRUCTOR & CONTACT INFORMATION

Table 1. Contact Information	
Instructor	Dr. Amy Latuski
Email*	latuskiamy@fhda.edu
Office	SC1210
Office Hours**	Tuesday at 2:00-3:50 PM on Zoom Wednesday at 5:30-6:20 PM in person office SC1210 Thursday at 7:00-7:50 PM on Zoom

***E-mail** is the most reliable way to contact me; I will not be checking canvas for messages. I check email regularly during business hours, 9:00 AM to 6:00 PM, and typically respond within 24 hours. Emails received on Fridays will be answered the following Monday.

****Office Hours** are available for any students having questions or concerns regarding the course content. You may attend during scheduled office hours or arrange an appointment for individual meetings.

II. COURSE DESCRIPTION

Course Purpose

This course is the first quarter of a three-quarter, one-year organic chemistry sequence, CHEM 12. The CHEM 12 sequence articulates to most one-year organic chemistry sequences for chemistry non-majors at two- and four-year institutions.

Prerequisite

A grade of C or better in CHEM 1C or CHEM 1 CH or the equivalent.

Lecture Content

This course focuses on the fundamentals of organic reactions: molecular structure, functional groups, stereochemistry, regiochemistry, mechanisms, and retrosynthesis. These core concepts provide the framework for exploring three classes of organic compounds: alkanes, alkenes, and alkyl halides. This course also integrates concepts from general chemistry, including bonding, thermodynamics, kinetics, and equilibrium tailored to the unique reactivity of organic molecules.

Lab Content

This lab course will introduce key physical techniques, such as extraction, distillation, recrystallization, and thin-layer chromatography (TLC) as well as instrumental techniques, such as infrared spectroscopy (IR), and nuclear magnetic resonance spectroscopy (NMR), which are routinely used in synthesizing and identifying organic compounds.

Student Learning Outcomes

- Predict products in reactions of alkanes, haloalkanes and alkenes by applying concepts from General Chemistry.
- Generate logical stepwise reaction mechanisms for simple organic reactions.
- Construct molecular structures from IR and ^1H NMR data.

III. COURSE MATERIALS & TECHNOLOGY

Textbooks

1. Lecture Textbook (**Required**): Organic Chemistry, 4th Edition, David Klein (2021), ISBN 978-1-119-77674-1 (Wiley publisher site for eBook options: <https://www.wiley.com/en-us/organic-chemistry-integrated-e-text-with-e-solutions-manual-4th-edition-p-9781119776741> and De Anza bookstore: <https://www.deanza.edu/bookstore/>).

2. Laboratory Textbook (**Required**): Experimental Organic Chemistry: A Miniscale and Microscale Approach, 6th edition, John C. Gilbert and Stephen F. Martin, Cengage Learning: 2016; ISBN 978-1-305-08046-1.

If you have already purchased another edition of the official lecture textbook, you are welcome to use it. However, please be aware that problem numbers and section numbers (or even topics) in older/newer editions may not match those found in the syllabus. For the laboratory textbook, if you own a previous edition or are unable to purchase the current edition, a copy of the current laboratory textbook is available on reserve at the De Anza College Library. Please note that, in addition to differences in page numbers, laboratory procedures in older editions may also differ from the current version of the textbook. Always follow the procedures in the current edition when completing laboratory work.

Models

Use of an HGS molecular model set is **strongly recommended** as an essential learning aid and can be used in exams; many options are available.

Laboratory Materials

- Chemical Safety Goggles (*n.b.* safety goggles must seal all the way around your eyes and be specifically designed for chemical lab work) (**Required**)
- Chemical Resistant Lab Coat (**Recommended**)
- Carbonless Copy Lab Notebook (~100 page carbonless copy spiral bound notebook) or Electronic Notebook (**Required**)
- Standard Combination Lock for Lab Drawer (not a keyed lock) (**Required**)

Canvas

This course requires the use of Canvas for navigating, completing and submitting assessments and obtaining course material information. You can access Canvas either through your MyPortal account or directly at <https://deanza.instructure.com/>.

IV. CLASS STRUCTURE & COURSE SCHEDULE

This course is divided into lecture and laboratory. Only one grade is assigned for lecture and laboratory combined; lecture and laboratory cannot be taken separately under any circumstances, doing so would violate articulation agreements with other institutions. This means that, even if you only need to complete the lecture to satisfy your transfer requirements, or even if you have previously taken the labs at De Anza, you are still required to complete the lab this quarter.

All lectures and laboratories are held in-person on the De Anza campus. This course cannot be taken in online format.

Lecture

Date: Monday & Wednesday Time: 11:30 AM – 12:45 PM Location: MLC105

Sections:

This course is divided into two sections (see **Table 2** for course registration numbers [CRNs].) Once you enroll in a particular section, you must attend only that section for the duration of the quarter. Both sections are completely independent of any other sections offered this quarter.

Table 2. Laboratory Section			
Section	Date	Time	Location
Section 04 (27866)	Monday & Wednesday	8:30 AM – 11:20 AM	SC2210
Section 05 (27867)	Monday & Wednesday	2:30 PM – 5:20 PM	SC2210

V. GRADING

The total number of points possible in this course is 1000 (see **Table 3** for point distribution). No artificial curve is used in grading, meaning the final letter grade is based solely on the number of points earned.

Table 3. Point Distribution					
Section (Weight Percentage)	Type of Assessment	Points	# of Assessments	Total Points	Weight Percentage
Lecture (72.5%)	Problem Set	10	5	50	5%
	Exit Ticket (Participation)	2.5	10	25	2.5%
	Quiz	50	2	100	10%

	Midterm Exam	150	2	300	30%
	Final	250	1	250	25%
Laboratory (27.5%)	Pre-lab & Lab Report	25	4 counted (lowest combined pre-lab/lab report score dropped)	100	10%
	Lab Participation & Safety	1.5	20	30	3%
	Lab Worksheet	25	1	25	2.5%
	Lab Exam	120	1	120	12%
Total Point Distribution		-----	-----	1000	100%

Final grades will be assigned based on a plus/minus grading scale (**Table 4**). A grade of 'C' or better is required to pass this course.

Table 4. Grade Scale			
Grade	Percentage	Grade	Percentage
A+	95–100	C+	73–76
A	90–94	C	70–72
A–	87–89	D+	66–69
B+	84–86	D	63–65
B	80–83	D–	60–62
B–	77–79	F	0–59

Pass/No Pass

If you are taking this course to receive course credit but do not need to receive a letter grade, this course may be taken on a pass/no-pass basis. A grade of 'C' or higher is considered passing, while a grade of 'D+' or lower is considered non-passing. You must designate this course pass/non-pass before the official registration deadline (see **Table 6**). Note: Once the pass/ non-pass deadline has passed, you cannot later convert a pass/non-pass grade into a letter grade or vice versa.

Auditing

If you have taken this course before at De Anza or another community college, you may take this course again on an audit basis for review. Auditing students may attend lecture and lab lecture but may not participate in lab experiments and will not receive credit for the course. Information about auditing can be found at <https://www.deanza.edu/policies/auditing.html>.

Plus/Minus grades

According to State education code, the maximum grade point possible for a course is 4.0, meaning that a grade of 'A+' is equivalent to a grade of 'A' for the purposes of calculating GPA. Additionally, since a grade of 'C' is considered the minimum passing grade for a course within the California Community College system, there is no such grade as 'C–' at De Anza.

VI. ASSESSMENTS

Assessment Format

- **Quizzes** are focused assessments intended to gauge your level of preparedness between exams. Quizzes are not explicitly cumulative and will instead focus on recently-presented material. Quizzes will be 40 minutes.
- **Exams** are broader assessments that are more cumulative in nature and will focus on all material presented since either the beginning of the quarter or since the previous exam. Midterm exams will be 85 minutes.
- The **final exam** is a comprehensive assessment that covers all material presented in lecture. The final exam does not include lab-related material, but it will include lecture-related material that was presented in lab. The final exam is 180 minutes, which is 3 hours.
- The **lab exam** is focused solely on material presented in lab. Questions on the lab exam will include material presented during lab lecture as well as any calculations or interpretations associated with your lab reports. No lab final is given during finals week, only a lecture final. The lab exam is 120 minutes.
- All **quizzes, midterms and lab exams** will be held in-person in lab lecture for each section in room **SC2210**.
- Students will complete 6 labs during the quarter, 5 **pre-lab** and **lab reports** combined will be submitted. The lowest lab (**pre-lab** and **lab report** of lab 1, lab 2, lab 3, lab 4 or lab 5) will be dropped. Each **lab report** is worth 20 points, and each **pre-lab** is worth 5 points, making every lab worth 25 points total, see section VII for more details.
- The **laboratory participation & safety** points are earned by attending the full lab session, actively participating in the experiment, following safety procedures, and maintaining a clean and safe workspace. Each lab session students can earn

1.5 points for *laboratory participation & safety*, we have a total of 20 laboratory sessions this quarter resulting in a total of 30 points.

- The **lab worksheet** is designed to assess your understanding and interpretation of IR and NMR spectroscopy. The worksheet must be completed in lab, independently, but you may use your textbook and laboratory notes as references.
- **Problem sets** are composed of 5 problems that are designed to help you stay on top of course material taught in lecture. Problem sets are due by the posted deadline, solutions will be posted after the deadline, late submissions and make-up problem sets are not accepted. Each problem set is awarded 10 points, 2 points per question for **completion, not correctness**. Answers need to be scribed directly on a problem set template, downloadable from canvas. Discussion of the problem sets with others is encouraged, but the submitted solutions must be composed individually. The completed problem set needs to be **submitted onto Canvas as a single scanned pdf file by 11:59 PM on the due date** found in **Table 5** (page 4). Carefully check the submission on the Canvas dashboard some students think they submitted the problem set but do not check. This is the responsibility of the student as late or incorrect problem sets will not be graded.
- Recommended homework problems can be found in **Table 7** (page 11). Additional practice problems at the end of each chapter are one way to increase your understanding of the course material. As this is a college-level course, homework and practice problems will not be collected or graded. You are encouraged to complete as many homework and practice problems as necessary to develop your understanding and prepare for exams. You are responsible for determining how much practice you need to master the course material.
- **Exit tickets** are a way to encourage participation in class and provide an opportunity for you to reflect on your learning. This brief activity may include a conceptual question, a short problem, or a reflection on the day's material. Exit tickets are graded for **completion, not correctness**, and are intended to help me identify areas where additional clarification or practice may be helpful.

Rules for Quizzes, Midterms & Exams

All quizzes, midterms, and exams (lecture and laboratory) are closed book. No notes, formula sheets, or internet-connected devices are permitted. Backpacks will be placed at the front of the classroom away from the desks. Modeling kits are allowed, but the kit container itself should be put away. If you need to exit the room for any reason during an exam (i.e. using the restroom), you must show me that your phone is inside your backpack. Only one student will be allowed outside the room at a time.

Submitting PSETs, Pre-lab/Lab Reports and Exit Tickets Online

All PSETs, Pre-lab/Lab Reports, and Exit Tickets will be turned in online, submitted through the Canvas system; PSETs, pre-lab/lab reports and exit tickets sent by e-mail will not be accepted. If you have a physical document that needs to be converted into electronic format and do not have access to a document scanner, many apps such as Adobe Scan are available for using your phone as a scanner. All assignments must be submitted as a single document in PDF format. Several tools are available for converting a wide range of electronic formats into PDF format.

Table 5. Important Due Dates			
LECTURE		LABORATORY	
<i>Assessment</i>	<i>Date</i>	<i>Assessment</i>	<i>Date</i>
PSET 1	October 5	Lab 1 Report	October 12
PSET 2	October 19	Lab 2 Report	October 19
PSET 3	November 2	Lab 3 Report	November 2
PSET 4	November 16	Lab 4 Report	November 16
PSET 5	November 30	Lab 5 Report	November 23
Quiz 1	September 30	Lab Worksheet	November 23
Quiz 2	October 28	Lab Exam	November 30
Midterm 1	October 14		
Midterm 2	November 18		
Final Exam	TBD (11:30AM-1:30 PM)		

Do not enroll in this class if you have conflicts with the exams, lectures or assigned laboratory section.

VII. LABORATORY

All students are required to have a lab notebook, physical or electronic. This is where you will store all lab-related content. I will not formally check the lab notebook, but you are expected to have all your lab work organized in one location (if electronic, a word document would suffice). Signing the safety contract, watching the safety videos, and completing the safety quiz provided on Canvas is required for attending any lab experiment. Failure to do by the first experiment may result in loss of registration in the class. You

are also required to have a combination lock for your assigned locker. You must provide me the lock combination. These locks can be purchased at the bookstore.

Locker Policy

You are required to check into a lab drawer at the beginning of the quarter and check out of it at the end. You are responsible for verifying that all your glassware is present and unbroken at the start of the lab. If you drop the course, you must still arrange a time with your instructor to check out your lab drawer. The stockroom technician will not check out lockers for any students, and not checking out by the end of the quarter will result in a hold being placed on your registration.

Pre-lab (5 points for each lab)

- Pre-labs will be posted on Canvas and must be submitted as a PDF on Canvas by the start of the first lab session for each new experiment.
- A completed pre-lab is required to participate in the lab experiment.
- Students who do not submit a completed pre-lab by the start of the laboratory session due date will not be permitted to participate and will receive an absence.
- Pre-labs are an essential part of laboratory safety – coming into lab without an understanding of the hazards or procedures is inherently unsafe.
- Do not use AI to rewrite the experimental procedure. AI tools may omit, alter, or misinterpret critical experimental or safety instructions. Preparing the procedure yourself helps familiarize you with the experiment before coming to lab.
- What to Include in your Pre-lab:
 1. **Reagent Table** (1 point)
For each compound present in the experiment, provide the molecular structure, molecular weight, boiling point (for a liquid) or melting point (for a solid), and density (if liquid).
 2. **Safety Hazards** (2 point)
Using the Safety Data Sheet (SDS) for each compound, identify the key hazards (1 point) and appropriate safety precautions for handling the chemical (1 point).
 3. **Experimental Procedure** (1 point)
Rewrite the procedure as a numbered or bulleted step-by-step list. Each step should be on a separate line.
 4. **Clean-Up & Waste Disposal Instructions** (1 point)
Summarize the appropriate clean-up and chemical waste-disposal procedures.

Lab Report (20 Points for each lab)

- Lab reports will be submitted on Canvas by the due dates listed in Table 5 of the syllabus. All lab reports must be submitted as a PDF.
- What to Include in your Lab Report:
 1. **Title**
Please number your lab reports in chronological order. For example: Lab 1: [Experimental Title], Lab 2: [Experimental Title], etc.
 2. **Objective** (1 point)
In 1-2 sentences, clearly state the purpose of the experiment and what will be determined, measured, synthesized, isolated or analyzed. For example: "The objective of this experiment is to determine the concentration of acetic acid in household vinegar." Make sure to focus on the scientific goal of the experiment, rather than what you personally learned or practiced.
 3. **Table of Observations** (5 points)
Organize your experimental observations (what you observed, not what you expected to observe) clearly in a table. Include relevant qualitative and quantitative observations, such as:
 - color or appearance
 - changes observed during the reaction
 - temperature changes
 - formation of precipitates, gas, or layers
 - masses, volumes or other experimental measurements.
 4. **Data and Calculations** (5 points)
Present all relevant experimental data and calculations with equations. Include appropriate units and significant figures. Include one sample calculation for each type of calculation performed. Clearly report calculated values such as percent yield, percent recovery, concentration, R_f values, or other relevant results, as applicable to the experiment. For IR and NMR spectroscopy, label the spectrum and provide the structure of your compound on your IR and NMR spectra. Important note, you are not graded on yield or accuracy of data.
 5. **Conclusion** (1 point)

Your conclusion should directly address the objective of the experiment. In 1-2 sentences, state the key quantitative and/or qualitative results that answer the original objective. For example: "The concentration of acetic acid in household vinegar is 0.829 M." Do not introduce new data or provide a detailed discussion in the conclusion.

6. **Post Lab Questions** – Analysis, Interpretation (8 points)

Complete all assigned post-lab questions. Responses should clearly demonstrate your understanding of the concepts, experimental techniques, and interpretation of results from the experiment.

Attendance & Tardiness

- Attendance is required in all laboratory classes. Missed labs cannot be made up because chemicals, equipment, and space are constrained.
- If you miss a lab, please email Dr. Latuski within 24 hours with a brief explanation for the reason of your absence.
- When appropriate, Dr. Latuski will provide you with the experimental data for you to complete the lab report. However, laboratory participation points cannot be earned for a missed lab, since these points require attendance and participation.
- For safety and logistical reasons, students may not attend another laboratory section to make up a missed lab.
- For tardiness, being a couple minutes late on occasion happens. However, consistent tardiness will result in loss of lab participation and safety points for each lab.
- Students who arrive 15 minutes after the scheduled start time will not be permitted to participate in the laboratory. This policy is in place because the beginning of each lab includes important safety instructions and pre-experiment lecture preparation.

Preparation & Participation

- You are expected to have read through the experimental procedure before coming to lab and should pay attention to the mini-lecture at the start of lab. You are not expected to fully understand every aspect of an experiment before arriving, lab is a place to learn and ask questions.
- If you are unsure how to proceed, ask questions, especially if you have any concerns about safety. Never perform a procedure that you believe may be unsafe without first consulting your instructor.
- All students are expected to actively participate and work collaboratively with their lab partner. Students who do not meaningfully participate in the experiment may lose their laboratory participation point.

Safety Expectations and Lab Stewardship

- Safety is the highest priority in the laboratory.
- Students who arrive without the required PPE or appropriate laboratory attire will not be permitted to participate.
- During the course of the lab, it is inevitable that occasionally accidents, such as spills, and broken glassware can occur even when appropriate precautions are followed, and you will not be penalized in these circumstances.
- Immediately notify your instructor of any accident, injury, spill, broken glassware, damaged equipment, or other potential safety hazards. Never attempt to hide or ignore an accident.
- Every student is responsible for maintaining a clean, safe, and orderly laboratory environment throughout the course of the lab. Failure to keep the lab clean and safe will result in deductions from the part of the course grade allotted to good lab conduct.
- Laboratory points may be reduced for improper handling of chemicals or waste, failure to clean up after yourself, or failure to maintain a safe laboratory environment.
- **Repeated unsafe behavior, reckless or intentional disregard for safety, including horseplay or deliberately ignoring safety instructions, is not tolerated. If your actions endanger the health and safety of yourself or someone else, you will be asked to leave and you will receive a zero for the day.**

Laboratory Safety Guidelines

The chemistry department has adopted the following rules from the American Chemical Society Safety in Academic Laboratories Guidelines, 7th edition, as mandatory for all chemistry lab classes:

1. Department-approved safety goggles must be worn at all times that chemicals or glassware are in use, including when obtaining items from the stockroom or moving equipment to or from your locker. Goggles may not be removed until all lab work has been completed and all chemicals and glassware have been stored.
2. Shoes that completely enclose the foot are to be worn at all times; no sandals, open-toed or open-topped shoes, or slippers, even with socks on, may be worn in lab.
3. Shorts, cut-offs, skirts, or pants exposing skin above the ankle, and sleeveless tops may not be worn in lab.
4. Hair reaching the top of the shoulders or below must be tied back securely.
5. Loose clothing must be constrained, while form-fitting items should be avoided as chemicals can be held against the skin.
6. Wearing jewelry (rings, bracelets, watches, etc.) is discouraged as chemicals can seep in between jewelry and skin.
7. Eating, drinking, or applying cosmetics in the laboratory room is forbidden at all times, including during lab lecture.
8. Headphones are prohibited in lab at all times as you must be able to hear any emergency announcements made.
9. Students are required to know the locations of the eyewash stations, emergency shower(s), and all exits.

10. You may not be in the laboratory, balance, or instrument rooms unless an instructor is present to supervise.
11. Students not enrolled in the course may not remain in the lab even for lecture once the add deadline has passed.
12. If for any reason you feel faint during the lab, notify an instructor before stepping out for air so you can be supervised.
13. Never point a heated system towards any person, including yourself.
14. Glass and needles must only be disposed of in the appropriate containers, never in the regular trash.
15. Except for soapy or clear rinse water from cleaning glassware, no chemicals may be poured into any sink; any remaining chemicals from an experiment must be poured into the appropriately labeled waste bottle.
16. Students must follow the Code of Conduct at all times while in the lab. Any behavior that could startle, frighten, or injure anyone in the lab is not allowed.

Laboratory Emergencies

- *Spills:* Do not attempt to clean spills yourself. Notify me so that I can quarantine the area and begin mitigation procedures.
- *Chemical Exposure:* Have someone alert me and immediately rinse the affected skin or clothing with large amounts of water.
- *Eye Exposure:* If chemicals splash in your eye, immediately flush your eyes at an eyewash station and have someone alert me.
- *Injury:* If you are cut or burned during a lab, please notify me immediately so I can send you for appropriate medical treatment. *Evacuation:* In the event the room must be evacuated, use only doors marked 'exit' and proceed to the track and field area.
- *Fire:* Do not attempt to put out any fires yourself. Notify me immediately and prepare to evacuate the room if necessary.
- *Earthquake:* Step away from equipment, duck under a desk until the shaking stops, then evacuate to the track and field.

Clean-Up

- Before leaving the lab, you are expected to clean up your workspace and all glassware or equipment you used. Once clean-up is complete, check with Dr. Latuski before leaving to ensure your workspace is satisfactory.
- Maintaining a clean and safe lab is part of your responsibility as a member of the class. Failure to properly clean your workspace may result in loss of laboratory participation and safety points.

VIII. ABSENCES & MAKE-UP POLICIES

Absences

If you are absent from class or lab, please contact me by e-mail within 24 hours and provide a brief explanation for your absence. You may be required to provide some form of verification of your absence such as a doctor's note or jury summons. If you are absent for any reason before the add deadline passes (see **Table 6**) without justification or notification within 24 hours, you will be automatically dropped from the class so that someone from the waitlist may take your place. By contract, I am required to drop any students that do not attend on the first day of class.

Make-Up Policies

- **Lecture:** No make-up assignment is required for missed lecture; course notes will be available through Canvas prior to lecture and notes taken during class will be uploaded at 6 PM on Monday and Wednesday. The exit ticket will be available on canvas for you to complete whether you are in class or not.
- **Quizzes:** *There are no make-up lecture quizzes.*
- **Midterm & Final Exams:** Need to be taken on scheduled dates and times. Lecture exams will not be dropped. An unexcused lecture exam will have a point score of zero (0) points. In the event a student submits a physician letter, or otherwise instructor approved documented reason for an absence resulting in missing one (1) lecture exam, then the final exam will be weighted to include the percentage value of the missed lecture exam. The final exam score will not compensate in any manner or be adjusted for two (2) missed lecture exams.
- **Laboratory:** Attendance is required in all lab classes. Missed labs cannot be made up because chemicals, equipment, and space are constrained. If you miss a lab, please email Dr. Latuski within 24 hours with a briefly explanation for the reason of your absence. Dr. Latuski will provide you with the data for you to complete the lab report, but you will not receive the points for lab participation, since participation requires attendance. Pre-lab assignments must be completed before the start of the laboratory and submitted on Canvas as a PDF. Completion of the pre-lab is required for entry into the laboratory. Students who have not completed the required pre-lab will not be permitted to participate, as the pre-lab provides essential preparation and safety information for the lab. For safety reasons, attending another lab section to make up lab is not possible. For tardiness, being a couple minutes late on occasion happens. However, consistent tardiness will result in loss of lab participation and safety points for each lab. Students who arrive more than 15 minutes after the scheduled start time will not be permitted to participate in the laboratory. This policy is in place because the beginning of each lab includes important safety instructions and pre-experiment lecture preparation.

- **Pre-lab/Lab Report:** The lowest percentage score for one pre-lab/lab report will be dropped, this flexibility is to provide a buffer intended to ease your stress and reduce the need to request official exceptions for one-off issues (e.g. illness or technical issues).
- **Lab Exam:** Needs to be taken on scheduled date and time. The lab exam will not be dropped; a missed lab exam will be a point score of zero (0) points. Contact the instructor immediately if a verifiable emergency prevents attendance.
- **Lab Worksheet:** Needs to be taken on scheduled dates and times. The lab worksheet will not be dropped; a missed lab worksheet will be a point score of zero (0) points. Contact the instructor immediately if a verifiable emergency prevents attendance.
- **Problem Sets:** No make-up problem sets or extensions will be offered.
- **Final Exam:** The final exam is scheduled by De Anza and should be treated as a fixed commitment. The final exam cannot be rescheduled, dropped from the total course grade or substituted. Contact the instructor immediately if a verifiable emergency prevents attendance.
- There are no extra credit projects or activities that are scheduled for this course. The instructors retain the option of providing an unplanned assessment owing to extenuating circumstances or events that might affect the scheduled instruction of this course.

IX. *ACADEMIC ACCOMMODATIONS*

Accommodations for a range of disabilities are available through Disability Support Programs & Services (DSPS). To receive an academic accommodation on assessments, such as extended-time, reduced-distraction testing, or the use of assistive technology, you must first be evaluated by Disability Support Programs and Services (DSS), located in the Advanced Technology Center (AT209) and obtain a Test Accommodation Verification (TAV) form. I am glad to work with you to arrive at an appropriate accommodation arrangement. If you need accommodations but are not yet registered through DSPS, please make sure to contact them as soon as possible, as I am not able to provide accommodations without a written notice from that office. The DSPS website is found at www.deanza.edu/dsps. Exams taken at the testing center must be scheduled in Clockwork at least one week prior to the exam date.

X. *ACADEMIC INTEGRITY*

Cheating or plagiarizing in any form will not be tolerated and are two of the most serious academic violations of the Code of Conduct. The first offense of academic dishonesty will result in a zero for the exam or assignment and the offending student will be reported to the Dean of Student Affairs. It is your responsibility to understand what constitutes academic dishonesty (see the academic honor code at www.deanza.edu/policies/academic_integrity.html). Note that for the in-class group exercises, you will be working together with your classmates, and it is fine for you to submit work done by the group as a whole, provided you were present and contributed to the group's work. For lab reports, you will generally be sharing data with your fellow classmates, and it is fine to work collaboratively and help one another with understanding how to analyze that data. However, the figures and discussion in the report that you submit must be your own work, and lab reports that have clearly been copied from another student will be assigned a zero score. Quizzes and exams are meant to assess your own knowledge of the course content, and any consultation with classmates or online or other sources while completing these evaluations will result in a zero score for the relevant assignment and a report being filed with the office of academic affairs. Further, all instances of cheating or plagiarism will be reported to the deans of Physical Sciences, Math, and Engineering (PSME) and of Student Development for possible further disciplinary action, which in extreme cases may result in expulsion from De Anza.

XI. *COURSE EXPECTATIONS*

Code of Conduct

All De Anza students and staff are expected to abide by the Code of Conduct, which is based on the following four principles: 1) mutual respect between students, faculty, and staff; 2) pursuit of studies with honesty and integrity; 3) respect for College and personal property; and 4) compliance with all rules and regulations. Violations of the Code may be reported for disciplinary action and, in extreme cases, may prompt your removal from the class pending further action.

Respect for your Peers

Hostile, demeaning, discriminatory, or disrespectful language or behavior toward your fellow classmates is not acceptable in this course. The classroom is a shared learning environment, and we all have a responsibility to help create a respectful, supportive, and productive space. Please be mindful of your classmates' learning by avoiding behavior or language that is disruptive or prevents others from participating. Each of us comes to the course with different backgrounds, identities, cultures, languages, beliefs, traditions, experiences, and perspectives. These differences should be respected and each individual deserves to feel welcomed, respected, supported and able to participate fully in the learning process. We may not always share the same perspectives or experiences, but we agree to approach one another with respect, empathy, and a willingness to learn from one another.

AI Policy

AI tools, such as ChatGPT, Claude or similar systems can be useful learning aids when used responsibly. In this course, the goal is to develop your ability to reason through organic chemistry problems. AI tools may support your learning but are not used to replace your own work. AI is still in development and is not great at generating answers for organic chemistry, be mindful and discern what is being generated, always verify responses using course material.

AI tools may not be used to...

- Generate answers for graded assignments.
- Solve problems sets, quizzes or exam questions.
- Produce laboratory reports or written explanations that you submit.

Electronic Resources

Cell phones, tablets, computers, and similar devices may be used in class as long as they are in silent mode. No electronic devices may be used on assessments except for approved, dedicated calculators (see Section IX for Academic Accommodations). While you may use electronic devices in class for the purposes of aiding in your own learning process, you may not use them in a way that serves to distract your classmates or otherwise detract from their learning experience.

Copyright Statement

Materials in this course are protected by the United States copyright laws. I am the copyright holder of the materials I create, including notes, handouts, slides, and videos. You may make copies of course materials for your own use and you may share the materials with other students enrolled in this course. You may not publicly distribute the course materials without my written permission.

Attendance & Course Engagement

Attendance is expected at every lecture and is strongly encouraged, although there is no grade penalty for missing lecture. Organic chemistry is cumulative, and each lecture builds on previous material, so falling behind can make later topics more difficult. You are encouraged to ask questions, volunteer answers, and participate, even when you are unsure. Making mistakes and feeling confused are normal parts of learning organic chemistry. Understanding often develops through practice, discussion, and working through challenging problems. Active-learning questions will be incorporated throughout lecture, typically using Poll Everywhere (PollEV). You can participate using a phone, tablet, or laptop. PollEV responses are not graded and are used to help you practice and to help me assess the class's understanding. Electronic devices are permitted during lecture but should be kept on silent. Please use them in a way that does not distract or disrupt your classmates' learning.

XII. INSTRUCTIONAL & STUDENT SERVICES RESOURCES

De Anza College provides a variety of resources to facilitate learning experiences and student services including those listed below. Please visit: <https://www.deanza.edu/services/>

- *De Anza College Quarter Guide:* <https://www.deanza.edu/quarter-guide/>
- *Student Success Center:* <http://www.deanza.edu/studentsuccess/>
 - Tutoring is available for on-site and online tutoring on a range of subject matter including chemistry. Resources are in Building S43.)
- *Office of Equity, Social Justice & Multicultural Education:* <https://www.deanza.edu/equityoffice/>
- *Counseling & Advising Center:* <http://www.deanza.edu/counseling/>
 - Provides support in the form of counseling and assistance on academic matters and personal challenges.
- *Disability Support Programs & Services:* <http://www.deanza.edu/dsps/>
 - Offers support services including accommodations and educational classroom assistance designed to help students with disabilities. DSS can be reached at 408-864-8753.
- *De Anza Food Pantry:* <https://www.deanza.edu/resources/food-pantry/>
- *Title IX Resources:* <https://www.deanza.edu/titleix/>

XIII. REGISTRATION

Deadlines:

Registration deadlines (**Table 6**) are strictly enforced by De Anza in accordance with state regulations. Exceptions to deadlines are only made in extreme emergencies, so make sure you take whatever action you need to take before the deadline.

Table 6. Registration Deadlines	
<i>Administrative Deadline</i>	<i>Date</i>
Must attend lecture & lab to maintain your registration	September 21, 2026
Last day to add this course	October 4, 2026
Last day to drop classes without a W and receive refund	October 4, 2026
Last day to drop classes with a W	November 13, 2026

Enrollment:

Due to safety policies related to the operation of the lab within the space that is available, enrollment in each section of organic chemistry is strictly limited to 26 students with no exceptions whatsoever. Additionally, due to liability concerns, you may not attend this class unless you are enrolled or auditing (see Section V). Students on the wait list may attend lecture until the add deadline passes to attempt to add into the course but cannot participate in lab experiments.

Waitlists:

Open spaces in each section will be filled following the order of the official wait list; any remaining spaces will be filled on a first-come, first-serve basis.

Drops & Withdrawals:

If you do not attend the first day of class, I am required by contract to drop you from the course, unless you inform me in writing as to why you were absent. Additionally, if you are absent without excuse before the drop deadline (see Table 6), you may be automatically dropped from the course so that students from the wait list may add the course instead. After the drop deadline, you are entirely responsible for initiating any drops or withdrawals from the course.

XIV. STRATEGIES FOR SUCCESS

Organic chemistry takes practice and consistency. You do not need to understand everything immediately. The goal is to **practice regularly, ask questions, and give yourself time to learn.**

Make Studying a Habit

Set aside time to work on organic chemistry **regularly throughout the week**, rather than relying on long study sessions before an exam. Each topic builds on previous material, so staying consistent will make the course much more manageable.

Create a Study Space

Find an environment where you can focus effectively. This might be a quiet library, your desk at home, or your favorite coffee shop. Choose a space that helps you minimize distractions and concentrate.

Set Attainable Goals

Studying organic chemistry can feel overwhelming. Break your studying into **specific, manageable tasks**: complete five practice problems, review today's mechanisms, make a reaction summary, or revisit a concept you found confusing. Small goals make it easier to start and track your progress.

Practice Actively

Organic chemistry is learned by **doing**, not simply re-reading notes. Work through practice problems, draw structures and mechanisms, explain your reasoning aloud, and identify where you get stuck. Use your notes and textbook to help check your understanding.

Teach Someone Else

One of the best ways to test your understanding is to explain a concept to someone else. Try teaching a classmate or even an imaginary student how to solve a problem. If you struggle to explain a step or answer "why?", you have identified something worth reviewing.

Take Care of Yourself

Learning is harder when you are exhausted or overwhelmed. Make time for sleep, meals, exercise, breaks, and activities you enjoy. When studying becomes frustrating, take a short break and return with a fresh perspective.

Most Importantly: Ask for Help!!!!

You are not expected to figure everything out on your own. Ask questions during lecture and lab, please come to office hours, work with your classmates, and seek help early when something is unclear.

XV. COURSE CALENDAR

Table 7. Lecture Schedule				
Week	Date	Topics	Chapter Readings (Klein)	Homework Problems
1	9/21	Syllabus, Lewis Structure & Bonding, Hybridization/Geometry	1.2-1.12, 2.1, 2.2	1.3-1.29, 2.1-2.6
	9/23	Functional Groups, Alkane, Alkene and Alkyl Halide Nomenclature, Resonance	2.3-2.13, 4.1-4.2, 7.2	2.7-2.33, 4.1-4.10, 7.1
2	9/28	Acid-Base (Definitions, Predicting Acid Strength: K_a & pK_a , Acidity/Basicity Trends)	3.1-3.10	3.1-3.35
	9/30	Predicting Equilibrium (K_{eq}), Isomers classification, Alkanes (Conformations & Dynamics)	1.2 4.3-4.8	1.1-1.2, 4.14-4.20
3	10/5	Cyclic Alkanes (Cyclohexane & Conformations), Stereochemistry (Stereoisomers, Chirality)	4.9-4.15 5.1-5.2	4.23-4.31, 5.1-5.8
	10/7	Stereochemistry (R/S configurations, Optical Activity, Enantiomers, Diastereomers, Meso Compounds)	5.3-5.6, 5.8, 5.10-5.11	5.3-5.25, 5.29-5.30
4	10/12	Exam 1 Review - Group Activity		
	10/14	Chemical Reactivity, Thermodynamics, Equilibrium	6.1-6.4	6.1-6.6
5	10/19	Kinetics & Reaction Energy Diagrams (Activation Energy, Transition States, Intermediates, Hammond Postulate)	6.5-6.6	6.7
	10/21	Organic Reaction Mechanisms (Nucleophiles, Electrophiles, Curved-Arrow Formation, Proton Transfer, Carbocation Intermediates, Rearrangements)	6.7-6.12	6.8-6.18
6	10/26	S_N2 : Biomolecular Substitution	7.1, 7.3-7.4, 7.12	7.2-7.7.6, 7.42, 7.43
	10/28	S_N1 : Unimolecular Substitution	7.1, 7.8, 7.12	7.21-7.25, 7.44
7	11/2	E1 Reaction	7.8	7.21-7.27
	11/4	E2 Reaction	7.5-7.7	7.9-7.20
8	11/9	E2 Reaction, Review S_N1 , S_N2 , E1, E2	7.9-7.10, 7.12	7.28-7.33, 7.45, 7.46
	11/11	College Closed – Veteran's Day		
9	11/16	Exam 2 Review - Group Activity		
	11/18	Free-Radical Polymerization	10.1-10.7	10.1-10.6, 10.8, 10.10, 10.12, 10.14, 10.16
10	11/23	Alkene Addition: Acid-Catalyzed Hydration, Hydroboration, Hydrogenation	8.6, 8.8-8.9	8.13-8.15, 8.18-8.20, 8.22
	11/25	Alkene Addition: Hydrohalogenation, Halogenation, Halohydrin Formation	8.5, 8.10	8.5-8.11, 8.24-8.27
11	11/30	Alkene Addition: Oxymercuration-Demercuration Anti/Syn-Dihydroxylation, Ozonolysis	8.7, 8.11-8.13	8.16, 8.17, 8.28-8.29, 8.31-8.33
	12/2	Addition Reactions in Synthesis, Synthesis Strategies, Retrosynthesis	8.14, 8.15, 7.11	8.35-8.36, 8.39-8.40, 8.42, 8.45, 7.35-7.36, 7.38-7.40
?	12/?	FINAL EXAM (180 minutes)		

Week	Date	Report	Lab Activity	Theory	Procedure
1	9/21		Safety Orientation (Safety Videos, Safety Contract), Laboratory Assessments (Pre-lab & Lab Reports), Lab Locker Check-In	Syllabus	
	9/23		Liquid-Liquid Extraction	155-163	-----
2	9/28	Pre-lab 1	Lab 1 – Acid-Base Extraction: Part B	155-163	165-166
	9/30		QUIZ 1 (40 minutes) Lab 1 – Acid-Base Extraction: Part B		
3	10/5		Lab 1 – Acid-Base Extraction: Recrystallization	179-184, 196-206	185-186
	10/7	Pre-lab 2	Lab 2 – Thin-Layer Chromatography (TLC) & Gas Chromatography		
4	10/12	Lab 1	Lab 2 – Thin-Layer Chromatography (TLC)	235-254	-----
	10/14		MIDTERM 1 (85 minutes) Infrared (IR) Spectroscopy Workshop		
5	10/19	Lab 2 Pre-lab 3	Lab 3 – 2-chloro-2-methylbutane: Synthesis	471-473	-----
	10/21		Lab 3 – 2-chloro-2-methylbutane: Distillation		
6	10/26		Lab 3 – 2-chloro-2-methylbutane: IR Spectroscopy	258-278	-----
	10/28		QUIZ 2 (40 minutes) Nuclear Magnetic Resonance (NMR) Spectroscopy Workshop		
7	11/2	Lab 3	Nuclear Magnetic Resonance (NMR) Spectroscopy Workshop	342-346	348-349
	11/4	Pre-lab 4	Lab 4 – Dehydration of 4-methyl-2-pentanol: Synthesis		
8	11/9		Lab 4 – Dehydration of 4-methyl-2-pentanol: IR/NMR Spectroscopy	-----	-----
	11/11		College Closed – Veteran's Day		
9	11/16	Lab 4 Pre-lab 5	Lab 5 – Relative Reactivity of Alkyl Halides	459-463	will be provided
	11/18		MIDTERM 2 (85 minutes) Lab 6 – Bromination of E-Stilbene: IR/NMR Spectroscopy	372-374	-----
10	11/23	Lab 5 Worksheet	IR/NMR: Combined Spectral Problem Worksheet	-----	-----
	11/25		Lab Exam Review	-----	-----
11	11/30		LAB EXAM (120 minutes) Lab Check-Out	-----	-----
	12/2		Final Exam Review (No Lab)	-----	-----

Student Learning Outcome(s):

- Predict products in reactions of alkanes, haloalkanes and alkenes by applying concepts from General Chemistry.
- Generate logical stepwise reaction mechanisms for simple organic reactions.
- Construct molecular structures from IR and ^1H NMR data.

Office Hours:

2:00 PM - 3:50 PM	Zoom	T
5:30 PM - 6:20 PM	SC1210	W
7:00 PM - 7:50 PM	Zoom	TH