



Department of Chemistry

CHEMISTRY 2096 *Organic Chemistry II*

Number of Units: 3 Units (plus 1 unit CHE2096L corequisite laboratory)

Spring 2026

Meeting days/times:

MWF 8:30 am – 9:25 pm (Section 1)

MWF 11:00 am – 11:55 pm (Section 2)

Meeting location Latter Hall 01

Final Exam:

Wednesday, 5/6, 4:30 – 6:20 pm, location TBD

INFORMATION	SPECIFICS FOR THE COURSE
Instructor title and name:	Dr. Ho Fung (Edmund) Cheng, Assistant Professor of Chemistry
Phone:	619 849 2581
Email:	hcheng@pointloma.edu
Office hours / Problem-solving sessions:	Rohr Science 360 (accessed through RS 330) Mon 4 – 4:45pm Tues 8:30 – 9:30 am, 12 – 1 pm Thurs 11:30 am – 12:30 pm Fri 1:00 – 2:15 pm. Google calendar link for office hour.
Student-led review sessions	6 pm Wednesday, location TBD

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

General Education Mission

PLNU provides a foundational course of study in the liberal arts informed by the life, death, and resurrection of Jesus Christ. In keeping with the Wesleyan tradition, the curriculum equips students with a broad range of knowledge and skills within and across disciplines to enrich major study, lifelong learning, and vocational service as Christ-like participants in the world's diverse societies and culture.

Course Description

From the PLNU Catalog: Examination of basic organic chemistry from a mechanistic perspective and the use of synthetic procedures.

Course Learning Outcomes

Chemistry 2096 Goals	Chemistry 2096 Outcomes
Students will...	Students will be able to...
...learn to speak and think in the language of organic chemistry.	<ul style="list-style-type: none">• ...translate between the names and formulas of organic compounds, particularly aromatic compounds, carboxylic acids and derivatives, aldehydes, ketones, organometallic reagents, and amines.• ...identify important named reactions in organic synthesis, including the Diels-Alder reaction, Friedel-Crafts alkylation & acylation, Sharpless epoxidation, Grignard reaction, the aldol, Claisen and Michael reactions, the Robinson annulation, and the Suzuki reaction.
...recognize the relationship between electronic structure and reaction selectivity.	<ul style="list-style-type: none">• ...provide the starting materials, reagents, or products of common reactions of alkanes, alkenes, alkynes, alcohols, benzene derivatives, organometallic reagents, carboxylic acids and their derivatives, aldehydes, ketones, and amines.• ...draw curved-arrow mechanisms for a variety of chemical transformations.• ...explain the regio- and stereo-chemical outcome of a reaction using mechanistic reasoning.

<p>...use steric and electronic arguments to predict the rate and product distribution of organic reactions.</p>	<ul style="list-style-type: none"> • ...predict the relative stability of species (including alkenes, radicals, cations and anions) on the basis of arguments such as resonance, inductive effects, conjugation, and hyperconjugation. • ...draw reaction coordinate diagrams for common organic reactions, labeling the reactant(s), product(s), transition state(s), and any intermediates. • ...explain reaction rate and product distribution on the basis of relative energy of reactants, intermediates, transition states, and products of a reaction.
<p>...understand strategies for designing efficient syntheses of target molecules.</p>	<ul style="list-style-type: none"> • ...propose a reaction or series of reactions that would lead to a given target molecule. • ...justify the selection of one route over another on the basis of reaction rate or selectivity.
<p>...use infrared (IR) and nuclear magnetic resonance (NMR) spectroscopy for elucidating the structure of organic molecules.</p>	<ul style="list-style-type: none"> • ...use infrared spectral data to infer the functional groups present in an unknown carbon compound. • ...analyze 1D ^1H NMR data – including chemical shift, integration, and splitting information – to infer the electronic environment, equivalence, and proximity of hydrogen atoms in an organic compound.

Program Learning Outcomes

CHEM PLO 2 (GC, IR) and BCHM PLO 3 (GC, IR) will be assessed directly by faculty laboratory instructors' observation of students' use of instruments in the accompanying laboratory (CHE2096L).

Required Texts and Recommended Study Resources

Students are responsible for having the required course textbooks prior to the first day of class.

[Organic Chemistry, Integrated E-Text with E-Solutions Manual](#), by Klein, David and Starkey, Laurie, John Wiley and Sons Inc., 5th Edition, 2025. (ISBN: 978-1-394-18932-8) *Required*. If you are not in Lomabook program and has used a different textbook for your OChem I, the "Single Term Access to WileyPLUS + Permanent Copy of eTextbook" option may make most sense. Consult me or bookstore manager, Anya, before making purchase.

WileyPlus Allocation: This is a web-based homework site. You are required to access this service. If you bought a new book from the bookstore you already received access to Wiley Plus in your bundle. Access should be included if you opted into Loma Books. A standalone copy of WileyPlus can be purchased online, which includes the e-book.

A molecular model set such as [this one](#) will be a tremendous asset for visualizing three-dimensional structures.

Preparing for Your ACS Examination in Organic Chemistry, The Official Guide, published by the American Chemical Society is an optional but useful aid in preparing for the final exam. You can save yourself the shipping cost and simultaneously support the PLNU Chemistry Club by purchasing the guide through the club. More details to come.

All supplemental materials posted on this course site (including articles, book excerpts, or other documents) are provided for your personal academic use. These materials may be protected by copyright law and should not be duplicated or distributed without permission of the copyright owner.

More information about resources can be found [here](#).

Assessment and Grading

Introduction problems – A few short Introduction Problems will be assigned daily and will often be used to begin class discussion. The questions will be related to that day's reading assignment (which you can find in that week's Overview) and will cover new material. You should complete these problems and upload a pdf copy onto its Canvas assignment page before coming to class. Answers to Intro Problems will be graded for participation and effort.

Weekly homework - Problems requiring more thought and reflection (taking ~ 90 min) are completed outside of class and are due each week on Saturday 11:59 pm. To facilitate rapid feedback, a portion of each assignment will be *electronic* and provided through WileyPlus. If you bought a new book from the bookstore (Lomabooks) you already received access to WileyPlus in your bundle; alternatively, access to WileyPlus with the eBook can be purchased online. The WileyPlus format allows you to check your answer in real time. Most weekly assignments will also include a handwritten portion to give you a chance to practice skills (such as drawing organic mechanisms, or multistep synthesis) that don't lend themselves well to online chemistry homework systems. These problems will be submitted on Canvas and graded by a TA. Your lowest scoring homework is automatically dropped.

End of class quizzes – At the end of each class there will be a 5-minute quiz consist of 1 multiple-choice question and 1 free-response. These questions test your understanding of the material covered on the day of class. End of class quizzes are graded by completion and effort.

Exams - There will be four midterm exams (55 minutes each, in class) and one final (110 minutes). Despite focusing on recently-covered material, midterm exams are *cumulative* and assume knowledge from earlier in both CHE 2094 and CHE 2096. Midterms consist of ~ 10 ACS-style multiple choice questions (30 points) and ~4-5 pages of free response questions (70 points, questions types include predict product, provide reagents, provide multi-step synthesis pathway, mechanism, explain observation, etc.). Your lowest scoring midterm will be automatically dropped. If you complete all four midterms, you will receive a 0.5 point extra credit for the overall course score.

The final exam is a *comprehensive* standardized multiple choice exam published by the American Chemical Society. See the course schedule for exam dates.

Additional insights: If the class average of the final is lower than that of the midterms', the final exam average will be curved up to the midterms' average. The class midterm average will be calculated using all four midterms. Since the dropped scores are also included in this calculation, it is beneficial to do well in all four midterms, even though your lowest scoring midterm is dropped in your individual course score calculation.

If you meet one of the acceptable reasons for missing a midterm, you can reschedule the midterm with me, but the **ONLY** allowable window is one calendar day before or after. If an arrangement cannot be reached, you will have to miss that midterm exam. Makeup examinations will **NOT** be given, as the class is designed such that if you miss one midterm, that midterm's score is automatically dropped. If you encounter extenuating circumstances that will lead to extended absence, please chat with me and I would love to help you find the most reasonable and helpful path forward.

Organic Learning Community (OLC) - Learning a challenging subject like organic chemistry is easier with the help of a regular study group. For each week that you meet with your study group for at least 1 hour and provide documentation of the meeting (e.g. a screenshot or photo), you can receive extra credit. During study group, you can work on Introduction problems, weekly homework, or class problems. You can connect with others looking for a study group here (https://docs.google.com/spreadsheets/d/1vKO0FPowQIGNunCU1v822uHKRyG_DFdUdKapG2rRcbA/edit?usp=drive_web&ouid=106897118678664482410)

Christian Practice: To simplify logistics, you will be doing this with your OLC group. This is a variant of what you have done during CHE 2094. You are required to meet one time each month (Jan, Feb, Mar, and April). During these meetings, you will have a conversation—here are some ideas I encourage you to explore: recent victories or struggles, or your life story / testimony, a Bible passage / religious text / sermon / talk you have been reflecting on, or a practical need that you have. Each of you is required to fill out a log that includes the times you met as a group and abstractly (no personal or identifiable details) what you talked about. In the same log, you will record the times you did something in response to your group's conversation. This can take many forms, including prayer, fasting, devotion, checking in with someone, meeting a tangible need, attending an event/talk/workshop, initiating a difficult conversation, etc. You need to have at least 6 entries in addition to the four group meetings. The log will count for 80 points. You will be required to write a brief reflection at mid-semester and at the end of

semester, each worth 10 points. Hint: you can do your Christian practice group meeting before or after your group study time.

Office hour / Problem sessions – You don't need to have questions to come to office hours. I will have practice problems and questions for you when you come!

A summary of extra credits available (3%, on top of a base of 100% course score):

Often it is difficult for students (and instructors) to understand the actual impact of extra credit. Here is I have tabulated how various forms of extra credit impact your OVERALL course score. Note: 3% is half a letter grade.

Extra credit	Type	Individual/group	Points	Max possible gains translated to 100%
OLC	By participation	Group	1 point per week	1.5%
Complete all four midterms	By completion	Individual	5 points	0.5%
Seminar (TBD)	By attendance	Individual	5 points	0.5 %
Course eval	By completion	Individual	5 points	0.5%

The activities described above will contribute to your total course score according to the following distribution:

Grade distribution

Christian practice	5%
Introduction problems	10%
End of class quizzes	5%
Homework assignments	15%
Midterm exams	45%
Final exam (ACS standardized exam)	20%
Extra credit	3% (additional to 100%)

Student grades will be posted in the Canvas grade book throughout the course. Letter grades will be assigned at the end of the course according to the following scale. For example, an 88 out of 103 is B+ (since 3 out of 103 are extra credit).

Grade scale

A	B	C	D	F
A ≥ 93.00	B+ 87.00-89.99	C+ 77.00-79.99	D+ 67.00-69.99	F < 60.00
A- 90.00-92.99	B 83.00-86.99	C 73.00-76.99	D 63.00-66.99	
	B- 80.00-82.99	C- 70.00-72.99	D- 60.00-62.99	

Absence Policy and Late Assignments

The following are the only accepted reasons for missing a class or midterm exam. (e) and (f) requires appropriate documentation provided to me, two weeks ahead of time. Extraordinary circumstances will be evaluated case-by-case.

- a) You have a contagious respiratory illness.
- b) You are very sick.
- c) You or your dependent has a health-related emergency that prevent you from attending. Note: if health conditions are more prolonged or non-emergent you should contact Educational Access Center (EAC) for academic accommodations.
- d) Death of an immediate family member or a close friend.
- e) Travel as a part of a recognized University organization (e.g., sports teams, debate teams, conferences, etc.)
- f) A job interview that cannot be scheduled with alternative times.

No make-up exams will be provided, as mentioned above. **Late introduction problems and homework assignments will receive a penalty (2.5% for each day late).** Deadline extensions will only be granted for (b), (c) and (d). For (b), you must request extensions at least 3 h before deadline. For (c) and (d), extension can be granted post-deadline, up to one week.

Final Examination Policy

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the [Traditional Undergraduate Records: Final Exam Schedules](#) site. If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

Spiritual Care

Please be aware PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith. If you have questions, a desire to meet with the chaplain or have prayer requests you can contact your professor or the [Office of Spiritual Life and Formation](#).

State Authorization

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized

to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow distance education outside California.

PLNU Copyright Policy

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU Recording Notification

In order to enhance the learning experience, please be advised that this course may be recorded by the professor for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel.

Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

PLNU Academic Honesty Policy

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. For all student appeals, faculty and students should follow the procedures outlined in the University Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

Artificial Intelligence (AI) Policy

The use of Artificial Intelligence (AI) tools (e.g., ChatGPT, iA Writer, Marmot, Botowski, GrammarlyGo, Perplexity, etc.) is strictly prohibited in this course for any homework, quizzes, midterms, and exams. However, you are allowed to use AI tools to assist in your learning and study. In addition, if any assignment encourages or allows the use of AI to generate content (text, video, audio, images), it will be stated so explicitly. Any work that utilizes AI-based tools must be clearly identified as such, including the specific tool(s) used. Please use the following sources to guide your citations when using AI.

[MLA Style Center: Citing Generative AI](#)

[APA Style: How to Cite ChatGPT](#)

[Chicago Manual of Style: Citing Content Developed or Generated by AI](#)

This course is designed to assess your independent critical thinking, writing, and research skills without the assistance of AI technologies. Violations of this policy will be treated as breaches of academic integrity.

PLNU Academic Accommodations Policy

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2533). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. Professors are able to view a student's approved accommodations through Accommodate.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any accommodations.

Language and Belonging

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

You may report an incident(s) using the [Bias Incident Reporting Form](#).

Sexual Misconduct and Discrimination

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that accommodations and resources are available through the Title IX Office at pointloma.edu/Title-IX. Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu or find a list of campus pastors at pointloma.edu/Title-IX.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias

PLNU Attendance and Participation Policy

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an “F” grade.

Use of Technology

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements; please refer to the [*Technology and System Requirements*](#) information. Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

Lomabooks Instructions for Students:

This course is part of our course material delivery program, **LomaBooks**. The bookstore will provide each student with a convenient package containing all required physical materials; all digitally delivered materials will be integrated into Canvas.

You should have received an email from the bookstore confirming the list of materials that will be provided for each of your courses and asking you to select how you would like to receive any printed components (in-store pick up or home delivery). If you have not done so already, please confirm your fulfillment preference so the bookstore can prepare your materials.

For more information about **LomaBooks**, please go: [HERE](#)

COURSE SCHEDULE AND ASSIGNMENTS

Note: **This schedule is subject to change.** Any substantial changes (i.e. changes to anything other than *Details* or *Readings*) will be announced on the *Announcements* page in Canvas, and modified here in the *Syllabus*.

Course schedule

WEEK	DAY	DETAILS	READING/NOTES
1 (note: no lab this week)	M 1/12	<ul style="list-style-type: none"> Course Introduction Review 	<ul style="list-style-type: none"> Syllabus Review Ch 1-6
	W 1/14	<ul style="list-style-type: none"> Review 	<ul style="list-style-type: none"> Review Ch 7-11
	F 1/16	<ul style="list-style-type: none"> Alcohols I: Structure, properties, acidity, preparation, protecting groups 	<ul style="list-style-type: none"> Ch 12.1-12.7
Week 1 Assignment Due on Sat 1/17			
2	M 1/19	MLK day, no class	
	W 1/21	<ul style="list-style-type: none"> Alcohols II: Reactions, synthesis strategies 	<ul style="list-style-type: none"> Ch 12.9-10, 12.13
	F 1/23	<ul style="list-style-type: none"> Ethers and Epoxides: Preparation, reactions, and synthesis 	<ul style="list-style-type: none"> Ch 13.5-13.6 Ch 13.8-13.10, 13.12
Week 2 Assignment Due on Sat 1/24			
3	M 1/26	<ul style="list-style-type: none"> Pi Systems: Molecular orbital of conjugated systems, stability, electrophilic addition, thermo vs. kinetic control. UV-Vis spectroscopy 	<ul style="list-style-type: none"> Ch 16.1-16.5 Ch 16.11
	W 1/28	<ul style="list-style-type: none"> Diels-Alder Reaction: Introduction, regioselectivity 	<ul style="list-style-type: none"> Ch 16.6, 16.7
	F 1/30	<ul style="list-style-type: none"> Diels-Alder Reaction: Stereoselectivity, MO theory 	<ul style="list-style-type: none"> Ch 16.7, 16.8
Week 3 Assignment Due Sat 1/31			
4	M 2/2	<ul style="list-style-type: none"> Catch up and spectroscopy review 	<ul style="list-style-type: none"> Ch 14,15
	W 2/4	Exam 1	<ul style="list-style-type: none"> Cover Ch 12, 13, 16 Include some OChem I (Ch 1-11, 14 ,15)
	F 2/6	<ul style="list-style-type: none"> Aromaticity: Introduction to Aromaticity, Structure, Stability Reactions at the Benzylic Position. 	<ul style="list-style-type: none"> Ch 17.1-17.6
Week 4 Assignment Due Sat 2/7			

5	M 2/9	<ul style="list-style-type: none"> • Benzene Reactions I: Electrophilic Aromatic Halogenation, Sulfonation, Nitration. 	<ul style="list-style-type: none"> • Ch 18.1-18.4
	W 2/11	<ul style="list-style-type: none"> • Benzene Reactions II: Aryl Diazonium Ions, Friedel-Crafts Alkylation, Acylation 	<ul style="list-style-type: none"> • Ch 18.5-18.6, Ch 22.10-22.11
	F 2/13	<ul style="list-style-type: none"> • Benzene Reactions III: Activating & Deactivating Groups, Directing Effects, Blocking, Synthesis Strategies 	<ul style="list-style-type: none"> • Ch 18.7-18.12
	Week 5 Assignment Due Sat 2/14		
6	M 2/16	<ul style="list-style-type: none"> • Benzene Reactions IV: Synthesis Strategies, Nucleophilic Aromatic Substitution, Elimination-Addition. 	<ul style="list-style-type: none"> • Ch 18.12-18.15
	W 2/18	<ul style="list-style-type: none"> • Aldehydes and Ketones I: properties, reactivity, acetal and hemiacetal formation 	<ul style="list-style-type: none"> • Ch 19.1-19.7a
	F 2/20	<ul style="list-style-type: none"> • Aldehydes and Ketones II: acetals, imines, enamines; formation and hydrolysis 	<ul style="list-style-type: none"> • Ch 19.7-19.9
	Week 6 Assignment Due Sat 2/21		
7	M 2/23	<ul style="list-style-type: none"> • Aldehydes and Ketones III: reduction and oxidation 	<ul style="list-style-type: none"> • Ch 19.5, 19.10, 19.11
	W 2/25	<ul style="list-style-type: none"> • Aldehydes and Ketones IV: reaction with carbon nucleophiles, Wittig reaction 	<ul style="list-style-type: none"> • Ch 19.6
	F 2/27	<ul style="list-style-type: none"> • Aldehydes and Ketones V: Summary and synthesis strategies 	<ul style="list-style-type: none"> • Ch 19.12
	Week 7 Assignment Due Sat 2/28		
8	M 3/2	Exam 2	<ul style="list-style-type: none"> • Cover Ch 17-19
	W 3/4	<ul style="list-style-type: none"> • Carboxylic acid derivatives I: pKa, general reactivity, preparation, and nucleophilic acyl substitution, reduction of carboxylic acids 	<ul style="list-style-type: none"> • Ch 20.1-20.6, 20.7a/b
	F 3/6	<ul style="list-style-type: none"> • Carboxylic acid derivatives II: Preparation and reactions of acid chlorides and anhydrides. Preparation of esters. 	<ul style="list-style-type: none"> • Ch 20.9-20.12 (read the parts relevant to acid chlorides, acid anhydrides, and ester)
	Week 8 Assignment Due Sat 3/7		
	3/9-3/13	Spring break, no class	
9	M 3/16	<ul style="list-style-type: none"> • Carboxylic acid derivatives III: Reactions of esters. Preparation and reactions of amides and nitriles 	<ul style="list-style-type: none"> • Ch 20.7, 20.8, 20.10, 20.11, 20.12

	W 3/18	<ul style="list-style-type: none"> • Carboxylic acid derivatives IV: catch up and synthesis strategies 	<ul style="list-style-type: none"> • Ch 20.10, 20.13
	F 3/20	<ul style="list-style-type: none"> • α-Carbon Chemistry I: Enol and enolate formation, halogenation 	<ul style="list-style-type: none"> • Ch 21.1, 21.3
Week 9 Assignment Due Sat 3/21			
10	M 3/23	<ul style="list-style-type: none"> • α-Carbon Chemistry II: alkylation and start of aldol 	<ul style="list-style-type: none"> • Ch 21.2, 21.4
	W 3/25	<ul style="list-style-type: none"> • α-Carbon Chemistry III: aldol 	<ul style="list-style-type: none"> • Ch 21.4
	F 3/27	<ul style="list-style-type: none"> • α-Carbon Chemistry IV: Claisen 	<ul style="list-style-type: none"> • Ch 21.5
Week 10 Assignment Due Sat 3/28			
11	M 3/30	<ul style="list-style-type: none"> • α-Carbon Chemistry V: Conjugate addition 	<ul style="list-style-type: none"> • Ch 21.6
	W 4/1	<ul style="list-style-type: none"> • α-Carbon Chemistry VI: Synthesis strategies 	<ul style="list-style-type: none"> • Ch 21.7
	F 4/3	Easter recess, no class	
Week 11 Assignment Due			
12	M 4/6	Easter recess, no class	
	W 4/8	Exam 3	
	F 4/10	<ul style="list-style-type: none"> • Amines: preparation, properties, overview of reactions 	<ul style="list-style-type: none"> • Ch 22.2-22.8
Week 12 Assignment Due Sat 4/11			
13	M 4/13	<ul style="list-style-type: none"> • Organometallic I: organolithiums and Grignard's 	<ul style="list-style-type: none"> • Ch 23.1-23.2
	W 4/15	<ul style="list-style-type: none"> • Organometallic II: organocuprates and synthesis 	<ul style="list-style-type: none"> • Ch 23.1-23.2
	F 4/17	<ul style="list-style-type: none"> • Organometallic III: Suzuki coupling 	<ul style="list-style-type: none"> • Ch 23.6
Week 13 Assignment Due Sat 4/18			
14	M 4/20	<ul style="list-style-type: none"> • Organometallic IV: Olefin metathesis 	<ul style="list-style-type: none"> • Ch 23.9
	W 4/22	<ul style="list-style-type: none"> • Synthetic Polymers: classification by reaction types 	<ul style="list-style-type: none"> • Ch 27.1, 27.2, 27.4

	F 4/24	Exam 4	<ul style="list-style-type: none"> Covers Ch 22, 23, 27 Will feature more from before as there is only 6 classes before it
		Week 14 Assignment Due Sat 4/25	
15	M 4/27	<ul style="list-style-type: none"> Carbohydrates I: Classification, configuration, and cyclization 	<ul style="list-style-type: none"> Ch 24.1-24.5
	W 4/29	<ul style="list-style-type: none"> Carbohydrates II: reactions, disaccharides, and polysaccharides 	<ul style="list-style-type: none"> Ch 24.6-24.8
	F 5/1	<ul style="list-style-type: none"> Final Exam review 	
		Week 15 Assignment Due Sat 5/2	
4:30 – 6:20 pm, Wed, May 6th		ACS Final	