

Chemistry 325bL Spring 2025

	Instructor	Lab Director	Course Coordinator
	Prof. Valery Fokin	Dr. Jennifer Moore	Dr. Xiaojun Zhang
Office	MCB-359 and Zoom	TBA	TBA
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Office hours	M 12 pm – 1 pm F 11 am – 12 noon	TBA	TBA

Lectures: 1:00-1:50 pm MWF SLH-100
Quiz: 3:30-4:50 pm Wednesdays ZHS 159 (**THIS IS A REQUIRED DISCUSSION!**) TBA
Lecture TA:

Textbooks: “Organic Chemistry” P.Y. Bruice, 8th edition (Required)
“Study Guide and Solutions Manual,” P.Y. Bruice (Required)
“Organic Chemistry as a Second Language: Second Semester Topics” D. Klein, 4th edition (Required)
“Spring 2020 Chemistry 322/325BL Laboratory Manual” (Required)
“Making the Connections 2,” Anne B. Padias, 2nd edition (Optional)

A separate laboratory syllabus will be issued

Website: The course BrightSpace website provides information for both lecture and laboratory. Selected course materials are available online such as lecture slides, exam study material, exam keys, and secured access to your grades.

Course Objectives:

This course will help you achieve fluency in the language of molecular structure and reactivity of organic compounds, culminating with a description of the molecular make-up of the cell. To get there, you will learn to apply concepts of chemical bonding, structure, and reactivity to new functional groups and mechanisms by reasoning with analogy and first principles. You will solidify your understanding by practicing problem solving strategies that you learn from instructors, peers, and yourself.

At the end of this course, successful students will achieve a definitive command of essential concepts of molecular structure and bonding. These include

- The intrinsic electrophilicity of the carbonyl group, carbonyl addition reactions, and the structure of carbonyl derivatives.
- Enolization and reactions of enolates, and the rudiments of polyketide synthesis.
- The electronic structure and reactivity of aromatic compounds.
- The richly complex chemistry of amines and imines.
- The structure, behavior, reactions, and function of carbohydrates and proteins.

Grading: There will be three 70-min midterm exams (100 points each) and a final exam (200 points). Your lecture grade will be calculated by replacing your lowest midterm exam score with your score (out of 100) on the final, if your final exam score (out of 100) is higher than your lowest midterm exam score. The point distribution between lecture and lab will be:

Lecture	500
Lab	250
Total	750

To receive a passing grade, satisfactory work must be done in both lab and the lecture portions of the course. Students who do not earn at least 50% of the lecture points and 50% of the lab points will fail the course.

Final letter grades will be assigned on the basis of the following definitions:

(A) An 'A' student not only understands the course material well but also can apply it creatively to new situations. The cutoff for an 'A-' will be no higher than 85%.

(B) A 'B' student has a good, solid understanding of the material but has trouble applying that knowledge to new situations. The cutoff for a 'B-' will be no higher than 75%

(C) A 'C' student has major gaps in understanding. The cutoff for a 'C-' will be no higher than 55%

(D or F) Still larger gaps lead to a 'D' or 'F' in the course.

Point totals for the course will be available on the course website. You are encouraged to check your grades on the website.

Exams: There will be three 70-min midterm exams given on Wednesdays at 3:30 pm, administered in person or via Gradescope if we must remain in the remote mode (the specifics of administering the exams online will be provided). No exams will be given on alternative dates and no make-up exams will be given. In some circumstances, a midterm missed due to severe illness, religious observance, or some essential USC activities may be excused. We must know ahead of time and will need documentation (see **Absences** section below). In this case, the balance of the lecture score will be scaled to compensate for the missing grade. **An unexcused missed midterm exam will be counted as a zero. Students must take at least two of the three midterms, and the final.** If you cannot take at least two of the midterm exams, you will receive a score of zero for the second missed exam. The final exam will be given on *Thursday, May 8, 2024, 8:00 a.m. – 10:00 a.m.* Although it will be comprehensive, lecture material covered after the third exam will be emphasized.

The **TENTATIVE** dates for the midterms are

Exam 1	Wednesday, February 12	3:30 pm
Exam 2	Wednesday, March 12	3:30 pm
Exam 3	Wednesday, April 16	3:30 pm
Final	<u>Thursday, May 8</u>	8:00 - 10:00 am

Regrades: Graders try to be as fair, accurate, and fast as possible when grading exams, but occasionally they make mistakes. Please compare carefully your graded exams with the posted key and bring any grading errors to our attention through the online system. If your exam is not graded according to the key, please submit regrade request no later than **the Monday (5pm)** after exams are returned electronically. Only online regrade requests are accepted, through Gradescope.

The regrade will be returned to you electronically and will be graded according to the posted grading rubric. The instructors reserve the right to regrade the entire exam.

Drop Dates: **January 31, 2024:** Last day to drop without a mark of W and receive refund.
February 28, 2024: Last day to drop without a mark of W.
April 11, 2024: Last day to drop with a mark of W.

If you drop the lecture, you must also drop the lab.

The mark of Incomplete (IN) may only be given to a student who is doing passing work through week 12 of the semester and is unable to complete the assigned work due to serious illness or a documented emergency occurring after that time.

Attendance: It will be imperative for you to attend the class if you plan to succeed in this course. There will be

opportunities during class for problem solving and self-assessment. Come ready to engage. If you are absent it will be your responsibility to get course announcements, material, and activities. **The problems we cover during class will be very similar to the types of problems you would see on a quiz or exam.** Keep in mind that organic chemistry is a cumulative subject. If you miss something early on, it is going to be even more difficult to keep up later.

Absences: Make-up exams *will not be given under any circumstances*. Absences will be excused based on official University policy (verifiable illness or necessity). An excused absence from an exam will be granted only on the basis of proper documentation, for instance a certification provided by a physician or hospital. Please inform the course coordinator Dr. Xiaojun Zhang about the absence ahead of time; and present the valid excuse and proper document(s) to Dr. Zhang, **no later than 24 hours** after the missed exam. Students must take at least two of the three midterms, and the final. If you cannot take at least two of the midterm exams, you will receive a score of zero for the second missed exam.

Homework: **Prior to attending lectures, please read the chapter(s) to be covered.** This will make the lectures easier to follow. *All* of the problems interspersed in the text after many sections should be worked *immediately* after reviewing each section. A list of “end of chapter” problems will be posted on the course website. *Working problems is the single best way to learn organic chemistry and the more the better. Only by working problems will you be able to test your knowledge of the material and your skill in applying it.* If you have difficulties with some of the problems, it usually means that your knowledge or ability to apply this knowledge is insufficient. In this case, restudy the material in your notes and your text. If that does not help, seek assistance from your instructor or TA’s. *Remember that the exam questions will be of a level of difficulty similar to that of the end of chapter problems and may occasionally be selected from homework problems.*

Students with Disabilities: Any student requesting academic accommodations based on a disability is required to register with DSP, Disability Services and Programs, each semester. A letter of verification for approved accommodations can be obtained from DSP. DSP is located in STU 301 and is open 8:30 am–5:00 pm, Monday through Friday. The phone number for DSP is (213) 740-0776. Please provide the verification letter to the course coordinator Dr. Xiaojun Zhang at the beginning of the semester.

Academic Integrity: USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://www.usc.edu/scampus/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

Your Rights and Responsibilities:

As a member of this course, you, the students, have the right to fair and equitable grading. Every effort will be made to grade assignments consistently, quickly, and with some amount of helpful feedback. If an error in grading is made, you are allowed to ask for a regrade of the assignment, in which we will take a more careful look at your work to make sure it was graded in accordance with the grading rubric. In courses with multiple sections, every effort will be made to communicate and coordinate across sections to avoid large difference in grading outcomes. You further have the right to ask for help in the course. Office hours are times set aside by course instructors and teaching assistants to meet with you, individually or in groups, to answer questions and help with issues throughout the semester. While attendance at office hours is optional, you are highly encouraged to attend if you have questions or concerns. In special cases, private, one-on-one appointments are also available for more confidential discussions.

Your opportunity to learn the course material is our primary goal. We agree to help you achieve mastery of the material in exchange for your agreement to make a good-faith effort to learn it. This means that all work submitted in this course must be your own. You may not use outside sources for answers to assignments (for example, pre-lab questions, lab reports, quiz questions, homework assignments, etc.). While you may collaborate with others on laboratory work and homework assignments, work must be in your own words and reflect your good-faith efforts. It is never acceptable to use outside “tutors” or others to furnish answers for you (for example, you may not consult [Chegg.com](https://www.chegg.com), reddit, CourseHero, etc. or hire others to complete assignments for you). If you have not done so already, please familiarize yourself with the discussion of plagiarism and other forms of academic dishonesty in SCampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct. **The posting of course materials (including Zoom recordings, quiz questions or answers, workbook content, lab reports or quizzes, or any other course-related content) to ANY internet site is strictly prohibited.** Seeking outside help during quizzes and exams is a violation of the USC Honor Code. Posting of course material is a violation of US copyright law and the USC Student Conduct Code.

Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call
studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED)- (213) 740-5086 | Title IX – (213) 821-8298
equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following *protected characteristics*: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
usc-advocate.symplicity.com/care-report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

Campus Support & Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 - 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus unfeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 - 24/7 on call

dps.usc.edu Non-emergency assistance or information.