

# CHEM 3321 Organic I Lab Syllabus, Fall 2021

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**Lab Director:** Jacquie Richardson  
**Email:** [Jacqueline.richardson@colorado.edu](mailto:Jacqueline.richardson@colorado.edu)  
**Lab Coordinator:** Chris Rinaldo

**Office:** Ekeley M1B30, 303-492-8256  
**Web Site:** [www.orgchemboulder.com](http://www.orgchemboulder.com)  
**Stockroom:** Ekeley M1B45, 303-735-6543

## Requirements for Covid-19

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. Students who fail to adhere to these requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct and Conflict Resolution. For more information, see the policy on classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

As of Aug. 13, 2021, CU Boulder has returned to requiring masks in classrooms and laboratories regardless of vaccination status. This requirement is a temporary precaution during the delta surge to supplement CU Boulder’s COVID-19 vaccine requirement. Exemptions include individuals who cannot medically tolerate a face covering, as well as those who are hearing-impaired or otherwise disabled or who are communicating with someone who is hearing-impaired or otherwise disabled and where the ability to see the mouth is essential to communication. If you qualify for a mask-related accommodation, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus. In addition, vaccinated instructional faculty who are engaged in an indoor instructional activity and are separated by at least 6 feet from the nearest person are exempt from wearing masks if they so choose.

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home. In this class, if you are sick or quarantined, you may request an excused absence from your TA for up to 2 experiments. In this case, the entire experiment will be dropped from your grade, and your grade will be out of fewer points. In addition, if you’re enrolled in an in-person section, you may choose to perform up to 2 additional experiments remotely. (If CU requires all classes to be held remotely for any part of the semester, these will not count against your limit of 2 remote experiments. Also, the first and last meeting for the semester will be remote, and these will also not count against you.) If you think you will need to miss more than 4 total in-person experiments, you should transfer into one of the all-remote sections at the start of the semester.

## List of Sections

Most lab sections will meet in-person every week, but some of the lab sections will do every experiment remotely (the ones listed as “remote” in the table below). This will involve watching a 10–15-minute video of a TA performing the lab, then writing up a lab report based on the TA’s data. You can watch these experiments whenever you want during the week, but your TA will be available over Zoom for help during the times listed for the course. In addition, you can visit the virtual OChem help room whenever it’s staffed (a schedule will be posted at <http://www.orgchemboulder.com/About>). The downside to taking the lab remotely is that there is no perfect replacement for learning new lab techniques hands-on, and you might have a harder time if you take OChem 2 lab in-person next semester.

Section	Day	Time	Location	TA	TA Email
121/821	Tue	10:20 AM-1:10 PM	EKLC M1B20	Garrett Cairo	<a href="mailto:Garrett.Cairo@colorado.edu">Garrett.Cairo@colorado.edu</a>
122	Tue	10:20 AM-1:10 PM	EKLC M1B25	Cassandra Sanchez	<a href="mailto:Cassandra.Sanchez@colorado.edu">Cassandra.Sanchez@colorado.edu</a>
124	Tue	1:50 PM-4:40 PM	EKLC M1B20	Somnath Dutta	<a href="mailto:Somnath.Dutta@colorado.edu">Somnath.Dutta@colorado.edu</a>
125	Tue	1:50 PM-4:40 PM	EKLC M1B25	Timothy Davis	<a href="mailto:Timothy.Davis@colorado.edu">Timothy.Davis@colorado.edu</a>
131	Wed	10:20 AM-1:10 PM	EKLC M1B20	Austin Bargmann	<a href="mailto:Austin.Bargmann@colorado.edu">Austin.Bargmann@colorado.edu</a>
132	Wed	10:20 AM-1:10 PM	EKLC M1B25	Brendan Langmack	<a href="mailto:Brendan.Langmack@colorado.edu">Brendan.Langmack@colorado.edu</a>
133	Wed	10:20 AM-1:10 PM	EKLC M1B35	Eric Miller	<a href="mailto:Eric.Miller-2@colorado.edu">Eric.Miller-2@colorado.edu</a>
134	Wed	1:50 PM-4:40 PM	EKLC M1B20	Austin Bargmann	<a href="mailto:Austin.Bargmann@colorado.edu">Austin.Bargmann@colorado.edu</a>
135	Wed	1:50 PM-4:40 PM	EKLC M1B25	Brianna Check	<a href="mailto:Brianna.Check@colorado.edu">Brianna.Check@colorado.edu</a>

136	Wed	1:50 PM-4:40 PM	EKLC M1B35	Cassandra Sanchez	Cassandra.Sanchez@colorado.edu
137	Wed	5:30 PM-8:20 PM	remote	Chenwei Lu	chlu6955@colorado.edu
138	Wed	5:30 PM-8:20 PM	remote	Qiucheng Xu	Qiucheng.Xu@colorado.edu
139	Wed	5:30 PM-8:20 PM	remote	David Zimmerman	David.Zimmerman-3@colorado.edu
141	Thu	10:20 AM-1:10 PM	EKLC M1B20	Timothy Davis	Timothy.Davis@colorado.edu
142	Thu	10:20 AM-1:10 PM	EKLC M1B25	James Greenwood	James.Greenwood@colorado.edu
145	Thu	1:50 PM-4:40 PM	EKLC M1B25	Somnath Dutta	Somnath.Dutta@colorado.edu
146	Thu	1:50 PM-4:40 PM	EKLC M1B35	Brianna Check	Brianna.Check@colorado.edu
148	Thu	5:30 PM-8:20 PM	remote	David Zimmerman	David.Zimmerman-3@colorado.edu
149	Thu	5:30 PM-8:20 PM	remote	Chenwei Lu	chlu6955@colorado.edu
151	Fri	10:20 AM-1:10 PM	remote	Brendan Langmack	Brendan.Langmack@colorado.edu
152	Fri	10:20 AM-1:10 PM	remote	Rachel Weintraub	Rachel.Weintraub-1@colorado.edu
154	Fri	1:50 PM-4:40 PM	remote	James Greenwood	James.Greenwood@colorado.edu
155	Fri	1:50 PM-4:40 PM	remote	Rachel Weintraub	Rachel.Weintraub-1@colorado.edu
156	Fri	1:50 PM-4:40 PM	remote	Qiucheng Xu	Qiucheng.Xu@colorado.edu

## Experiment Schedule

Dates	#	Experiment
Tue Aug 24 - Fri Aug 27	1	Syllabus, Lab Safety & IR Spectroscopy ( <b>remote</b> )
Tue Aug 31 - Fri Sep 3	2	Check-In & NMR Spectroscopy
Tue Sep 7 - Fri Sep 10	3	Modeling Conformations, ChemDraw & Excel
Tue Sep 14 - Fri Sep 17	4	Practical NMR
Tue Sep 21 - Fri Sep 24	5	Thin Layer Chromatography and Melting Point
Tue Sep 28 - Fri Oct 1	6	Extraction
Tue Oct 5 - Fri Oct 8	7	Recrystallization
Tue Oct 12 - Fri Oct 15	8	Distillation
Tue Oct 19 - Fri Oct 22	9	Modeling Chirality & Cycloalkanes
Tue Oct 26 - Fri Oct 29	10	Stereochemistry of Alkene Additions
Tue Nov 2 - Fri Nov 5	11	Substitution & Elimination
Tue Nov 9 - Fri Nov 12	12	Regiochemistry of Eliminations
Tue Nov 16 - Fri Nov 19	13	Oxidation of Alcohols & Check-Out
Tue Nov 23 - Fri Nov 26		<b>No labs</b>
Tue Nov 30 - Fri Dec 3		Final quiz ( <b>remote</b> )
Tue Dec 7 - Fri Dec 10		<b>No labs</b>

## Grading

**Canvas:** This course will use Canvas, which can be accessed at [canvas.colorado.edu](https://canvas.colorado.edu). All assignments will be handled through Canvas in order to minimize transmission risk through paperwork. Grades will be posted here, as well as a complete list of assignments and the points value for each. You can check the grades of individual items against your own records to make sure they're correct, but your course total might not reflect any excused absences or curves.

Your due dates for assignments will be set based on your lab section; most assignments are due at either the start of the end of your scheduled lab period. If you switch sections at any point, Canvas might not update your due dates properly. In this case, you are responsible for contacting [OIThelp@colorado.edu](mailto:OIThelp@colorado.edu), letting them know which section you have recently swapped into, and asking them to update your due dates in Canvas. Any late penalties you incur due to incorrect due dates will not be removed except in extenuating circumstances.

**Quizzes:** Quizzes cover assigned reading, procedures, and Experiment Manual study questions. They are due on Canvas at the starting time for your lab, but you can complete them at any point before then. The study questions from the Experiment Manual are designed to help you prepare for the quizzes, and they have answers posted on the course website. You don't need to turn in the answers to study questions in your lab reports but they are helpful for studying.

**Regrades:** Please keep all of the graded work that is returned to you so that it can be checked in the case of a discrepancy with your TA's grade records. If you notice a missing or erroneous grade on a quiz or lab, you must bring it to your TA's attention within two lab periods of the graded document being returned to the class, whether you are there to receive it or not. After this point, no regrades will be accepted.

**Late work:** If you turn in any item late, you will lose 10% of the maximum possible points per day or partial day. For instance, a 20-point assignment will have 2 points deducted for each day that it is late. In order to submit final grades on time, no late work will be accepted after the final quiz is due for the course.

**Curving:** At the end of the semester, if the average grade for your lab section (excluding the students who have at least one zero grade) is below 85%, the average will be curved up to 85%. There is no guaranteed number of A grades, B grades, etc. per section. Your final letter grade will be based on the following standard scale: 93% and up is an A, 90-92.99% is an A-, etc. Grades near a cutoff will not be bumped up except in extenuating circumstances, at the discretion of the Lab Director.

## Course Policies

**Lab Safety Rules:** You are required to follow the lab safety rules at all times or risk being expelled from the lab for the day and taking an unexcused absence. These rules are given in Chapter 1 of the Lab Handbook; additional rules will be explained by your TA.

**Lab Drawers:** You are accountable for the contents of your lab drawer throughout the semester. Further information is given on the lab drawer check-in sheet you will use during the first lab session.

**Pregnancy and Chemical Exposure Notice:** Pregnant students should be aware that there are risks associated with the development of the embryo and fetus from exposure to certain chemicals. Likewise, students with certain medical conditions could also experience an adverse effect from exposure to chemicals. The Department of Chemistry recommends that you discuss the Organic Chemistry chemical list, procedures, and required safety precautions with your physician. The Department of Chemistry will work with you to discuss possible options regarding meeting the requirements of the course. Please contact the instructor of your course to discuss these options and any questions you may have.

### **Required Texts and Supplies:**

- Approved safety goggles and lab coat (if in an in-person lab section)
- Organic chemistry model set
- Labster membership (see signup details in Canvas)

To make them more available to students who are remote, the lab manual and handbook will be available as PDFs in Canvas, so you won't need to purchase them. Also, since all lab reports will be turned in as PDFs in Canvas, you do not need to record your experimental observations in a carbon-copy lab notebook; any notebook will work.

Organic modeling kits from various different manufacturers are available for lower cost online, but whichever kit you purchase, you should make sure it has at least 10–15 carbon atoms (they are usually the ones made of black plastic).

**Prerequisites and Corequisites:** Students enrolled in CHEM 3321 must also be enrolled in CHEM 3311 or 3451, unless they have already passed one of these courses. They must also have passed both lab and lecture for either General Chemistry 2, or General Chemistry for Engineers, or Foundations of Chemistry, with a grade of C- or better in both courses. Failure to meet this requirement will result in being administratively dropped from the course. Exceptions will be determined by the Lab Director.

**Add/Drop:** Students who do not attend the first laboratory session may be automatically dropped from the lab or the lecture to make room for people on the wait list. It is your responsibility to know your schedule and to make changes accordingly. Information regarding drop/add deadlines can be found at <http://www.colorado.edu/registrar/students/academic-calendar/registration-calendar>.

**Email Policy:** Announcements from your TA or Lab Director will occasionally be sent to your official CU email address, via the roster emailing system, or through Canvas announcements. It is your responsibility to check your CU email account and Canvas frequently. You may set up email forwarding from your CU account to another email address if you prefer, but you do so at your own risk. If you suspect your email account is not working properly, you must contact CU's tech support at [help@colorado.edu](mailto:help@colorado.edu) and make sure it is in order. Missed email will not be considered a valid excuse for missing or incorrect assignments. See the [Student Email Policy](#) for more details.

**Classroom Behavior:** Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on [classroom behavior](#) and the [Student Conduct & Conflict Resolution policies](#).

**Accommodation for Disabilities:** If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

**Preferred Student Names and Pronouns:** CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

**Honor Code:** All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code ([honor@colorado.edu](mailto:honor@colorado.edu); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).

**Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation:** The University of Colorado Boulder (CU Boulder) is committed to fostering an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#). Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

**Religious Holidays:** Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, absences for religious reasons will be handled the same way as any other excused absence. See the [campus policy regarding religious observances](#) for full details.