

CHEM 272L (Laboratory Syllabus and Schedule)

Organic Chemistry Laboratory I (in-person)

Fall term: 08/21-12/15 2023

Prerequisite: General Chemistry 162 L (C not C-) and Chem 272 (or concurrent)

Instructor: Dr. Jakub Hyvl

Office: Bilger Addition 404

Office hours: M, W 10:30-11:00, or by appointment (over Zoom)

Email: hyvl@hawaii.edu

CRN	Sect	Day	Time	Room	TA Name	Email	
70269	1	M	1330	1720	BILA 202	Trent, Hana	htrent@hawaii.edu
70266	3	T	900	1250	BILA 202	Romine, Jeff	rominej@hawaii.edu
72393	6	T	1330	1720	BILA 202	Romine, Jeff	rominej@hawaii.edu
72477	7	T	1330	1720	BILA 214	Martinez, Jacob	jacobm9@hawaii.edu
70270	8	W	1230	1620	BILA 202	Yamane, Kael	kyamane3@hawaii.edu
70267	9	W	1230	1620	BILA 214	de la Zerda, Rafael	rafaeld@hawaii.edu
70268	10	R	900	1250	BILA 202	de la Zerda, Rafael	rafaeld@hawaii.edu
70274	11	R	900	1250	BILA 206	Romine, Jeff	rominej@hawaii.edu
73372	14	R	1330	1720	BILA 202	Trent, Hana	htrent@hawaii.edu
70272	15	R	1330	1720	BILA 206	Shaunson Wong	shaunson@hawaii.edu
73373	17	F	1230	1620	BILA 202	Yamane, Kael	kyamane3@hawaii.edu
70273	16	R	1330	1720	BILA 214	Nakasato, Landon	ln23@hawaii.edu
72476	18	F	1230	1620	BILA 206	Iwatani, April	aiwatani@hawaii.edu

Lab Manual: Chemistry 272L Organic Laboratory Procedures (UHM Bookstore)

Course Description:

CHEM 272L is the laboratory extension of Organic Chemistry I (CHEM 272). In-person mode, the experiments are intended as practical applications of the material taught in the lectures giving students 'hands-on' experience in organic chemistry. In online mode (only relevant during stay-at-home orders, or per UH policy, etc.), the course is focused on other essential skills such as writing of reports, experiment evaluation, theory of experiments and interpretation of spectroscopic data.

Student learning outcomes:

Student learning outcomes can be found on the Chemistry Department website: <http://manoa.hawaii.edu/chem/academics/courses/>

Students are expected to follow University of Hawaii COVID-19 guidelines as posted at: <https://www.hawaii.edu/news/2020/08/10/manoa-covid-19-guidelines/>

COVID-related modifications in Syllabus or Lab Schedule: Syllabus or schedule might be modified/updated due to COVID-related events/policies (campus closure, stay-at-home order, update of UH policies etc.)

Required equipment: All labs will be done in-person. You will need goggles and you will need access to the Internet.

Laboratory Safety: During the first (in-person) section meeting, each lab section will receive verbal instructions from the instructor on laboratory safety, the physical outlay of the laboratory and the operation of safety equipment. Attendance for this instruction is MANDATORY. Most of the same information is provided in writing in the beginning pages of the laboratory manual.

It is essential that you are always wearing eye protection during the lab, that you are wearing closed-toed shoes, at a minimum, pants or skirts covering your knees, and shirts covering your shoulders. Long hair needs to be tied back while in the lab. Neither contact lenses nor vision correction glasses are an appropriate substitute for safety glasses. Proper safety glasses with side shields can be purchased in the bookstore or at home improvement stores.

It is the student's responsibility to follow these instructions. We will be paying particular attention to your wearing of personal protective devices, specifically eye protection, shoes, pants and shirts. The safety rules are there to ensure your protection from your own and others' actions. Failure to follow safety procedures will lead to dismissal from the lab and receiving a score of zero for the lab. It is a precondition for being allowed to take part in a lab that you are wearing the appropriate clothing.

Experiment schedule: A schedule for the semester's experiments for the individual sections can be found on last page of this document.

Absence: You are permitted only two absences (absence = zeros from all assignments from one lab) due to illness or other.

In order to excuse your absence, you must:

- 1) notify your TA
- 2) forward your doctor's note, court notice or equivalent, to the course Instructor who will make the decision.
- 3) fill out a Google Form, which can be found at Laulima>Announcements folder (you need to be signed in your UH gmail account as well).

A dismissal counts as an unexcused absence. Three absences constitute failing the course, so be sure to prioritize your schedule accordingly.

Lab organization: You will be working in teams of two, but you will be individually responsible for preparing lab reports (more below) and for producing supporting information such as spectra. You will be assigned a fume hood at the beginning of the first lab and you will be working at that hood for the entire semester. The hood should be clean when you step up to it at the beginning of the lab period and you will be leaving it equally clean when you are done with your experiment. The TA must approve of the level of cleanliness of your hood and the bench besides it before you are allowed to leave the lab.

Each student will be given a kit of glassware at the beginning of each lab section. The kits will be bearing your name so that you get the same kit every lab. It is therefore in your interest to fill your kit with clean glassware only. The TA will inspect your kit for cleanliness before you are allowed to turn it in at the end of the semester.

Preparedness: Students must carefully read the experimental procedure, prepare prelab report, and take pre-lab quiz.

Lab Reports/Assignments:

Submit the lab report/assignment to your TA before the start of the next scheduled lab period. Late lab reports will receive 33% deduction per day.

Tentative Grading: Each lab will be graded separately and appropriate curves will be determined at the end of the semester. Your grade is determined from a combination of quizzes (30 points), lab reports/assignments/+prelab report (60 points), and TA evaluation (10 points). A final percentage will be calculated and applied to the following tentative grading scale:

Overall [%]	Grade Earned
≥ 97.0	A+
93.0-96.99	A
90.0-92.99	A-
87.0-89.99	B+
83.0-86.99	B
80.0-82.99	B-
77.0-79.99	C+
73.0-76.99	C
70.0-72.99	C-
67.0-69.99	D+
63.0-66.99	D
60.0-62.99	D-
< 60.0%	F

Policies:

Quizzes will be given at the beginning of the lab period. Students who are late for the quiz will not receive time extensions or be able to make up quizzes. Any missed quiz will be considered a zero.

Students who arrive/join after the pre-lab lecture has begun and miss important safety information may not be allowed to participate in the lab at the TA/instructor's discretion due to safety concerns. In this case, it will count as a zero.

Students must have completed the appropriate prelab details (see lab manual's lab report section for details) to participate in the lab due to safety concerns. Failure to do so will count as a zero.

Students present at the start of the lab for the quiz, but without the prelab complete, will have their quiz result counted in this case.

Lab reports are due at the start of each lab period. Late reports will be accepted for up to 3 BUSINESS days, at a penalty of 33% per BUSINESS Day (M-F, excluding holidays). Reports not submitted at the start of the lab period will be considered late. The corrections in grading (if any) need to be done within two weeks after the report/assignment submission.

Students who receive three zeros for any combination of missing labs, failing to attend the lab period (excused or unexcused), or being dismissed from the lab for failure to follow the departmental or instructor guidelines will receive an F in the course.

All students are expected to conduct himself/herself with honesty and consideration of fellow students.

TAs will conduct themselves as professional educators. This includes making all reasonable effort to return properly graded lab reports and quizzes to students by the end of the next lab period, responding to student emails within 2 business days (M-F excluding holidays), provide reasonably updated class grades to students upon request (as a percent or raw scores, not as a letter grade) within that time frame, and keep reasonably scheduled office hours (1h per assigned section per week) during the business week. Contact hours outside of these office hour(s) shall be at the TAs' discretion based on availability as parttime employees.

Misconduct: Any student caught cheating will automatically receive an F in the course and have their case referred to the appropriate review board for further disciplinary action.

Any act of plagiarism, or any other attempt to defraud the academic process will meet with reprimand and possible dismissal from the course without credit. Cheating in any form on an assignment/exam, at a minimum, result in a zero grade on that assignment/exam and the filing of an Academic Dishonesty Report Form describing the incident with the Vice President of Student Affairs. Prior or future cheating incidents anywhere in the university could result in expulsion. Cheating includes: the copying or exchanging of information during exams or quizzes, using banned materials, information, or devices during exams/quizzes, plagiarism, and altering the graded exam and claiming points. Exact reproduction of written materials from other students on any lab report will result in all parties receiving a zero. An on-line version of the Academic Honesty Policy for the university can be found at:

http://www.studentaffairs.manoa.hawaii.edu/policies/conduct_code/

Special accommodations policy - KOKUA program:

If you have a disability and related access needs, please contact the KOKUA program (UH Disabled Student Services Office) at 956-7511, KOKUA@hawaii.edu, or go to Room 013 in the Queen Lili'uokalani Center for Student Services. Please know that I will work with you and KOKUA to meet your access needs based on disability documentation.

Title IX <https://manoa.hawaii.edu/titleix/>

ADA ADA compliance, please contact me if you require any material in an alternate format.

Absences: The instructor cannot make accommodations for conflicting work schedules, vacation plans, or any other non-emergency situations. Any medical emergency must be documented by a hand-written doctor's note by a local doctor with a physical address and phone number on the heading of the note. Only excused medical or other relevant (military, athletes, school-related trips, etc.) absences will be excused. Otherwise, no credit will be given.

Laboratory Schedule CHEM 272L for Fall 2023 (all labs are in-person)

Week	Dates	M	T	W	R	F
1	08/21-08/25	no lab	no lab	no lab	no lab	no lab
2	08/28-09/01	no lab	no lab	no lab	no lab	closed campus
3	09/04-09/08	Labor Day*	no lab	no lab	no lab	Safety/Melting Points
4	09/11-09/15	Safety/Melting Points	Safety/Melting Points	Safety/Melting Points	Safety/Melting Points	Distillation
5	09/18-09/22	Distillation	Distillation	Distillation	Distillation	Crystallization
6	09/25-09/29	Crystallization	Crystallization	Crystallization	Crystallization	TLC
7	10/02-10/06	TLC	TLC	TLC	TLC	Column chrom.
8	10/09-10/13	Column chrom.	Column chrom.	Column chrom.	Column chrom.	Steam Distillation
9	10/16-10/20	Steam Distillation	Steam Distillation	Steam Distillation	Steam Distillation	Extraction
10	10/23-10/27	Extraction	Extraction	Extraction	Extraction	SN2
11	10/30-11/03	SN2	SN2	SN2	SN2	Oxidation
12	11/06-11/10	Oxidation	Oxidation	Oxidation	Oxidation	Veterans' Day*
13	11/13-11/17	Brom/Elimination	Brom/Elimination	Brom/Elimination	Brom/Elimination	Brom/Elimination
14	11/20-11/24	Transfer H.	Transfer H.	Transfer H.	Thanksgiving*	Non-instructional Day*
15	11/27-12/01	no lab	no lab	no lab	Transfer H.	Transfer H.
16	12/04-12/08	no lab	no lab	no lab	no lab	xxx
17	12/11-12/15	xxx	xxx	xxx	xxx	xxx

* Non-instructional Days

Note: Order of labs in this schedule does not necessarily match the order in which the labs are printed in the manual.