

# CHEM 273L – Organic Chemistry II Laboratory

Syllabus, Fall 2020

**Professor:** Prof. P. Williams  
**Email:** philipwi@hawaii.edu  
**Office:** Bilger 245A  
**Phone:** 956-5720

**Teaching Assistants:** **Synchronous Experiments:**  
Monday and Tuesday afternoon: Patrick Napier (pnapier@hawaii.edu)  
Tuesday morning: Jenna Tsuzaki (jtsuzaki@hawaii.edu)  
Wednesday afternoon: Noah Kang (gidonk@hawaii.edu)

**Asynchronous TA for NMR and MS:** Kaela Iwai ([kaelai@hawaii.edu](mailto:kaelai@hawaii.edu))  
Email her for assistance or connect during her office hours:  
Office hours: Monday 2-4pm or Thursday 4-5 pm.

**Format:** Due to COVID19 concerns, this will be an on-line lab for fall 2020 with both synchronous at your regularly scheduled time and asynchronous labs. Students in each section will be divided into groups performing experiments according to the attached schedule, alternating formats each week. One TA will deal with all the asynchronous content. During synchronous labs you will interact with the TA assigned to your specific section.

See the announcement on laulima for your assigned group and follow the appropriate schedule each week. TAs for the sync and async experiments will be touch weekly about to connect for the experiment and due dates for the assignments.

**Prerequisite:** Chem 272L (C not C-) and Chem 273 (or concurrent)  
**Text:** Chemistry 273 Organic Laboratory Procedures  
(available in the bookstore)

While you will not be physically performing the experiments listed, it contains important background information on the experiments and questions to be answered in your final report. You will also find the detailed procedure useful to following along with any videos.

**Errors in the lab manual? Let me know using the link below for possible extra credit if you are the first.**

<https://forms.gle/UhYVrgyXa45PsPCN6>

**Notebooks:** None required: Lab reported may be typed in word and emailed.

**Safety:** All labs will be conducted on-line either synchronously or asynchronously.

**Semester grade:** Each lab will be graded separately, and appropriate curves determined at the end of the semester. The following **tentative** scale will be used:  
A+ 90-100; A 85-89; A- 80-84; B+ 75-79; B 70-74; B- 65-69; C+ 60-64; C 55-59; C- 50-54; D+ 45-49; D 40-44; D- 30-39; F 29-0

Quizzes	(Pre-lab - Synchronous)	30% (5% of your final grade each)
Lab Report	(Synchronous)	30%
Lab reports	(Asynchronous)	30%
TA Evaluation	(Sync - Participation, preparation, mastery)	10%

### **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 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.

**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.**

**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 student who feels s/he may need an accommodation** based on the impact of a disability is invited to contact me privately. I would be happy to work with you, and the KOKUA Program (Office for Students with Disabilities) to ensure reasonable accommodations in my course. KOKUA can be reached at (808) 956-7511 or (808) 956-7612 (voice/text) in room 013 of the Queen Lili'uokalani Center for Student Services

**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 part-time employees.

## Chem 273L Fall 2020 All On-line

	Monday	Tuesday	Wednesday	Thursday	Friday
	<b>8/24/2016</b>	<b>25-Aug</b>	<b>26-Aug</b>	<b>27-Aug</b>	<b>28-Aug</b>
Group A	No Labs	No Labs	No Labs	No Labs	No Labs
Group B	No Labs	No Labs	No Labs	No Labs	No Labs
	<b>31-Aug</b>	<b>1-Sep</b>	<b>2-Sep</b>	<b>3-Sep</b>	<b>4-Sep</b>
Group A	On-line Synchronous: Ester	On-line Synchronous: Ester	On-line Synchronous: Ester	On-line Synchronous: Ester	On-line Synchronous: Ester
Group B	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1
	<b>7-Sep</b>	<b>8-Sep</b>	<b>9-Sep</b>	<b>10-Sep</b>	<b>11-Sep</b>
Group A	Holiday	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1	On-line Asynchronous: Unknown 1
Group B	Holiday	On-line Synchronous: Ester	On-line Synchronous: Ester	On-line Synchronous: Ester	On-line Synchronous: Ester
	<b>14-Sep</b>	<b>15-Sep</b>	<b>16-Sep</b>	<b>17-Sep</b>	<b>18-Sep</b>
Group A	On-line Asynchronous: Unknown 1	On-line Synchronous: Grignard	On-line Synchronous: Grignard	On-line Synchronous: Grignard	On-line Synchronous: Grignard
Group B	On-line Synchronous: Ester	On-line Asynchronous: Unknown 2	On-line Asynchronous: Unknown 2	On-line Asynchronous: Unknown 2	On-line Asynchronous: Unknown 2
	<b>21-Sep</b>	<b>22-Sep</b>	<b>23-Sep</b>	<b>24-Sep</b>	<b>25-Sep</b>
Group A	On-line Synchronous: Grignard	On-line Asynchronous: Unknown 2	On-line Asynchronous: Unknown 2	On-line Asynchronous: Unknown 2	On-line Asynchronous: Unknown 2
Group B	On-line Asynchronous: Unknown 2	On-line Synchronous: Grignard	On-line Synchronous: Grignard	On-line Synchronous: Grignard	On-line Synchronous: Grignard
	<b>28-Sep</b>	<b>29-Sep</b>	<b>30-Sep</b>	<b>1-Oct</b>	<b>2-Oct</b>
Group A	On-line Asynchronous: Unknown 2	On-line Synchronous: Friedel-Crafts	On-line Synchronous: Friedel-Crafts	On-line Synchronous: Friedel-Crafts	On-line Synchronous: Friedel-Crafts
Group B	On-line Synchronous: Grignard	On-line Asynchronous: Unknown 3	On-line Asynchronous: Unknown 3	On-line Asynchronous: Unknown 3	On-line Asynchronous: Unknown 3
	<b>5-Oct</b>	<b>6-Oct</b>	<b>7-Oct</b>	<b>8-Oct</b>	<b>9-Oct</b>
Group A	On-line Synchronous: Friedel-Crafts	On-line Asynchronous: Unknown 3	On-line Asynchronous: Unknown 3	On-line Asynchronous: Unknown 3	On-line Asynchronous: Unknown 3

Group B	On-line Asynchronous: Unknown 3	On-line Synchronous: Friedel-Crafts	On-line Synchronous: Friedel-Crafts	On-line Synchronous: Friedel-Crafts	On-line Synchronous: Friedel-Crafts
	<b>12-Oct</b>	<b>13-Oct</b>	<b>14-Oct</b>	<b>15-Oct</b>	<b>16-Oct</b>
Group A	On-line Asynchronous: Unknown 3	On-line Synchronous: Sodium Borohydride	On-line Synchronous: Sodium Borohydride	On-line Synchronous: Sodium Borohydride	On-line Synchronous: Sodium Borohydride
Group B	On-line Synchronous: Friedel-Crafts	On-line Asynchronous: Unknown 4	On-line Asynchronous: Unknown 4	On-line Asynchronous: Unknown 4	On-line Asynchronous: Unknown 4
	<b>19-Oct</b>	<b>20-Oct</b>	<b>21-Oct</b>	<b>22-Oct</b>	<b>23-Oct</b>
Group A	On-line Synchronous: Sodium Borohydride	On-line Asynchronous: Unknown 4	On-line Asynchronous: Unknown 4	On-line Asynchronous: Unknown 4	On-line Asynchronous: Unknown 4
Group B	On-line Asynchronous: Unknown 4	On-line Synchronous: Sodium Borohydride	On-line Synchronous: Sodium Borohydride	On-line Synchronous: Sodium Borohydride	On-line Synchronous: Sodium Borohydride
	<b>26-Oct</b>	<b>27-Oct</b>	<b>28-Oct</b>	<b>29-Oct</b>	<b>30-Oct</b>
Group A	On-line Asynchronous: Unknown 4	On-line Synchronous: Diels Alder	On-line Synchronous: Diels Alder	On-line Synchronous: Diels Alder	On-line Synchronous: Diels Alder
Group B	On-line Synchronous: Sodium Borohydride	On-line Asynchronous: Unknown 5	On-line Asynchronous: Unknown 5	On-line Asynchronous: Unknown 5	On-line Asynchronous: Unknown 5
	<b>2-Nov</b>	<b>3-Nov</b>	<b>4-Nov</b>	<b>5-Nov</b>	<b>6-Nov</b>
Group A	On-line Synchronous: Diels Alder	Holiday	On-line Asynchronous: Unknown 5	On-line Asynchronous: Unknown 5	On-line Asynchronous: Unknown 5
Group B	On-line Asynchronous: Unknown 5	Holiday	On-line Synchronous: Diels Alder	On-line Synchronous: Diels Alder	On-line Synchronous: Diels Alder
	<b>9-Nov</b>	<b>10-Nov</b>	<b>11-Nov</b>	<b>12-Nov</b>	<b>13-Nov</b>
Group A	On-line Asynchronous: Unknown 5	On-line Asynchronous: Unknown 5	Holiday	No Labs	No Labs
Group B	On-line Synchronous: Diels Alder	On-line Synchronous: Diels Alder	Holiday	No Labs	No Labs
	<b>16-Nov</b>	<b>17-Nov</b>	<b>18-Nov</b>	<b>19-Nov</b>	<b>20-Nov</b>
Group A	No Labs	On-line Synchronous: Wittig & Chemilum.	On-line Synchronous: Wittig & Chemilum.	On-line Synchronous: Wittig & Chemilum.	On-line Synchronous: Wittig & Chemilum.
Group B	No Labs				

	<b>23-Nov</b>	<b>24-Nov</b>	<b>25-Nov</b>	<b>26-Nov</b>	<b>27-Nov</b>
	On-line Synchronous: Wittig & Chemilum.	No Labs	No Labs	Thanksgiving	No Labs
Group A					
	On-line Asynchronous: Unknown 5	No Labs	No Labs	Thanksgiving	No Labs
Group B					
	<b>30-Nov</b>	<b>1-Dec</b>	<b>2-Dec</b>	<b>3-Dec</b>	<b>4-Dec</b>
Group A	No Labs	No Labs	No Labs	No Labs	No Labs
Group B	No Labs	No Labs	No Labs	No Labs	No Labs
	<b>7-Dec</b>	<b>8-Dec</b>	<b>9-Dec</b>	<b>10-Dec</b>	
Group A	No Labs	No Labs	No Labs	No Labs	
Group B	No Labs	No Labs	No Labs	No Labs	