

Organic Chemistry Lab, 4:141 Fall 2004, Prof. MacGillivray

Lecture:	AAA	11:30 – 12:20 PM	F	221 CB
Exam:		4:30 – 6:20 PM	W	
Laboratory:	A01	1:30 – 4:20 PM	MW	469 CB
	A02	1:30 – 4:20 PM	MW	477 CB
	A03	8:30 – 11:20 AM	TR	469 CB
	A04	8:30 – 11:20 AM	TR	477 CB
	A05	1:30 – 4:20 PM	TR	469 CB
	A06	1:30 – 4:20 PM	TR	477 CB

	Instructor	TA
	Len MacGillivray	
Office:	231 Chemistry Bldg.	111C CB
Phone:	335-3504	
email:	len-macgillivray@uiowa.edu	
Office Hrs:	T, W 11:00 AM -12:00 noon or by appointment	

Course Website:

<http://www.uiowa.edu/~chemdept/stdsrvcs/course.html>

Course Materials

Required: Course Pack: "Organic Chemistry Laboratory"

Optional: "The Organic Chem Lab Survival Manual: Students' Guide to Techniques", Zubrick, 6th ed., Wiley, New York 2004 (earlier edition is ok)

Required Equipment: laboratory goggles or safety glasses
laboratory notebook (with duplicate carbonless pages)
gloves

Optional Equipment: soap, paper towel, ruler, pencil

Course Content and Prerequisites

Objectives: introduce students to standard laboratory techniques
provide experience with organic reactions
introduce methods of separation and identification of organic molecules

Prerequisites: 4:012 (or 4:016 from old system) AND
4:121 or 4:123 AND
a grade of C or higher in 4:121, 4:123, 4:122, or 4:124

Co- or Prerequisite: 4:122 or 4:124

Course Administration

A majority of course business can be accomplished at the Chemistry Center, 237 CB. The hours are 8 AM -12 Noon & 1-5 PM on M-R and 8 AM -12 Noon & 12:30 – 4:30 PM on Friday, and the contact person is Michele Gerot (335-1341). The following SHOULD be accomplished at the Center: drop/add forms, section changes, make-up labs and exams, course handouts, TA office hours, loan of alternate textbooks, submission of late lab reports. Please do not ask the instructor or TAs to do these; they can be handled directly by the Chemistry Center.

Complaints

Complaints and appeals can be filed with the Departmental Executive Officer at the Department of Chemistry administrative offices, 305 CB (335-1350).

Special Needs

Anyone who has a disability which may require some modification of seating, testing, or other class requirements should see the instructor during office hours so that appropriate arrangements may be made. In addition, you should contact the Office of Student Disability Services, 3101 Burge Hall (335-1462) and then the Chemistry Center (237 CB, 335-1341).

TA Office Hours

Your TA can be found in 111C CB during his/her office hours. In addition, 4:141 students can get help from other 4:141 TAs who normally staff that room at various times between 8:00 AM - 12 NOON and 1:00-5:00 PM on Monday through Friday. Your TA will tell you her/his office hours; a listing of the office hours is also available in the Chemistry Center (237 CB)

Examinations

There are two one-hour exams, which include a cumulative final:

Exam 1: Wednesday, October 13, 4:30 PM – 6:20 PM (designated exam time)

Exam 2: Friday, December 10, 11:30 AM – 12:20 PM, 221 CB (designated lecture time)

Grading

One-hour exams, lab reports, lab assignments, and TA evaluations (based on participation, activities, and lab notebook evaluations). Plus and minus grades will be given. A total of 950 points is possible:

- 2 one-hour exams (225 pts each) = 450 pts
- TA evaluation (midterm & end, 30 pts each) = 60
- Laboratory assignments
 - Expt 1 Literature = 25
 - Expt 3 Spectroscopy = 25
- Laboratory reports
 - Expt 2 Techniques = 70
 - Expt 4 Acetaminophen = 30
 - Expt 5 Isolation = 30
 - Expt 6 Diels-Alder = 30
 - Expt 7 Wittig = 30
 - Expt 8 Grignard = 70
 - Expt 9 Unknown = 70
 - Expt 10 Molecular Modeling = 30
 - Expt 11 Green Chemistry = 30

<i>grade</i>	<i>% of class</i>
A	18
B	36
C	39
D	5
F	2

avg recommended GPA = 2.63 / 4.0

Historical avg in course = ca. 3.0

Exams will ONLY be given at the designated times. A makeup exam will only be given in the case of an excused absence. See "Schedule of Courses" for University-approved reasons. Personal or family travel is NOT an excused absence.

Lab assignments or reports can be submitted for re-evaluation for one of the following reasons:

- addition error(s)
- a portion designated as missing or incomplete is present or complete

Lab assignments or reports can only be submitted for re-evaluation within a week after they were returned to you and should be date and time stamped in the Chemistry Center. A request should be written on the cover of the item. The ENTIRE report or assignment will be re-evaluated.

Late reports and assignments should be submitted *via* the Chemistry Center. They should be date and time stamped using the time clock and left in the Chemistry Center. A penalty of 10% of the available points per day is assessed. Reports a week or more late are only acceptable if permission is granted by the instructor. Such reports should be time stamped and submitted directly to the instructor.

There are severe penalties for violation of safety rules and procedures that are outlined in a subsequent section.

If you have 2 or more UNEXCUSED absences in lab, you cannot receive a passing grade.

Safety

The course is designed to be safe when students follow appropriate, defined procedures and use the lab materials in the designated way. Safety is enhanced when all students are properly prepared and alert:

- You must pass the safety quiz with 100% and sign before working in the lab.
- Show up and leave on time. Do not enter the lab until a TA or instructor is present. Come prepared in every aspect (content preparation, goggles, clothing).
- Wear safety glasses or goggles at ALL times. The TA may make a few introductory comments before any equipment or materials are out. Glasses must be worn from that point until you leave. Group discussion is best convened in the hall. Wearing contact lenses is discouraged.
- Feet, legs, and the midriff should be covered.
- Eating, drinking, and smoking are prohibited in the lab at ALL times. Flames are not allowed in the lab. Wash your hands right before you leave.
- Report ALL injuries of any kind to the TA. You should even report a minor cut or burn to the TA before you go to the bathroom to wash it.
- Solvents, solids, and sharp items must be disposed of properly. NOTHING goes down the sink.
- An organic chemical may pose a different level of hazard to an adult than to an unborn fetus. Students who are pregnant or think that they might become pregnant during the course should discuss their enrollment in this course with their physician(s). Material safety data sheets MSDS are available and the chemical materials used are listed in the manual or via additions/corrections provided during the lecture portion.
- Safe practice in the lab requires that students be able to hear warnings or announcements. Lab computers MAY NOT be used to play music; personal music devices even with headphones (*i.e.* tape, CD, or MP3 players) are not appropriate for labs. You should remove them and shut off cell phones before lab starts.

A student will be asked to leave the laboratory for the entire lab period (and will receive NO credit for that day's activities or any report or assignment derived from the work) for the following behaviors:

- Repeated refusal to wear safety glasses (or goggles) or to conform to the safe lab dresscode (e.g. covered feet, legs).
- Conducting experiments or activities using equipment and chemicals other than the assigned activities. The course wishes to promote independent thinking; independent experiment design and performance is NOT allowed.
- Improper behavior that puts oneself or another individual at risk. Egregious improper behavior is grounds for dismissal from the course.

Academic Misconduct

- Examinations: you are expected to work alone
- Lecture/Pre-lab quizzes: you are expected to complete work alone; group work in discussion sessions is the only exception
- Laboratory experiments: data collection may be facilitated in groups of two or four; discussion before, after and during the lab is encouraged
- Laboratory reports and assignments: should be done by each individual

Representing scientific or professional work of others as your own is unethical and dishonest. Consistent with expected behavior, plagiarism, cheating and copying will not be tolerated. Students who do will be given an F in the course and the case will be reported to the Office of Academic Affairs.

College Statement

This course is given by the College of Liberal Arts and Sciences. This means that class policies on matters such as requirements, grading, and sanctions for academic dishonesty are governed by the College of Liberal Arts and Sciences. Students wishing to add or drop this course after the official deadline must receive the approval of the Dean of the College of Liberal Arts and Sciences. Details of the University policy of cross enrollments may be found at:

<http://www.uiowa.edu/~provost/deos/crossenroll.doc>.