

## Syllabus Organic Chemistry Laboratory II

### CHEM 223, SPRING 2015

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<b>Location</b>	Room 166 SCL (Sterling Chemistry Lab)
<b>Time</b>	1:00 to 4:30pm, M, T, W, Th or F. Students attend <u>one</u> lab session per week, on their assigned lab day. <b>See the Power Point Presentation at <a href="#">classesv2/</a> announcements for how to register for lab.</b>
<b>Instructor:</b>	Dr. Christine DiMeglio, 109A SCL, 203-432-5914, <a href="mailto:christine.dimeglio@yale.edu">christine.dimeglio@yale.edu</a> ;
<b>Office hours:</b>	M-F, during or after lab, or email for an appointment
<b>Lab staff:</b>	Anna Yu ( <a href="mailto:anna.q.yu@yale.edu">anna.q.yu@yale.edu</a> ), 151 SCL, 432-4758 and Lisa Vitale ( <a href="mailto:elisa.vitale@yale.edu">elisa.vitale@yale.edu</a> ), 142A SCL, 432-3964.

**Teaching assistants:** TBA

#### Required materials:

Lab textbook: **Techniques in Organic Chemistry**, Jerry Mohrig, *et al.*, W.H. Freeman and Company, 3<sup>rd</sup> edition (ISBN-13: 978-1429219563). Buy online or at the **Yale Bookstore**.

**ALERT! New edition of Mohrig! ISBN: 9781464134227 you may use either the 3<sup>rd</sup> or 4<sup>th</sup> edition.**

Course Packet: Online at [classesv2/resources](#). A hardcopy can be purchased from TYCO beginning 01/09/2015

Lab Notebook: **ISBN-13: 978-0716739005**. You may reuse a notebook from another class if it is capable of making copies for your TA and if there are plenty of pages remaining!

Long Lab Coat-to the knee! Buy it at the Yale Bookstore or from an online vendor. Do not buy short lab coats!

Unisex size chart: <http://www.allseasonsuniforms.com/fssize.htm>

Unisex, 40 inch, knee length, long sleeve, 65% poly/35% cotton, lab coat – suggested brands are White Swan and Dickies.

Proper Clothing: pants that cover legs and ankles (no shorts, skirts or Capri), shoes that cover the ENTIRE foot (no sandals, flip flops or ballet type), no earbuds or head phones. **If you are in lab with improper clothing you will need to leave, change and walk back up the hill.**

Thick Sharpie Markers® for writing on glassware **and a LOCK for the backpack/coat lockers!**

**We Provide:** Lab safety glasses/goggles and nitrile gloves

#### Objectives for CHEM 223:

Students will continue using basic skills from CHEM 222 toward the synthesis, isolation and characterization of organic compounds. One and two step reaction sequences may include oxidation, reduction, condensation, esterification, etc. Students will be introduced to collecting/interpreting NMR spectra. Students will read primary literature and will prepare journal style reports.

#### Overview of a Typical Lab Day

- Arrive on time and immediately set up work station: get gloves, lab coat and glasses; get pipettes, required glassware, ring stands, clamps and other support materials; organize notebook, etc.
- Once instructor and/or TA are/is available, begin acquiring necessary chemicals.
- Before beginning experiment, listen to pre-lab lecture by TA.

- Use Experimental Plan to perform the experiment while recording actions/observations in the lab notebook.
- Ask questions as necessary.
- Clean up thoroughly, following waste disposal protocols.
- Have TA sign notebook before leaving lab.

### Overview of Important Lab Policies:

- Students with improper clothing will need to leave the lab immediately and return home to change.
- Attendance at scheduled lab sessions is expected. In case of illness, injury, personal or family emergency a student should notify the course instructor and their TA by email in advance of the absence. A make-up lab will be scheduled within 1 week of the missed experiment. In case of travel or appointments, students are encouraged to make advanced make-up arrangements with the course instructor. Students may need a Dean's excuse to qualify for a makeup.
- Students must submit an experimental plan, EP, prior to beginning an experiment. Unprepared students will not be permitted to perform the experiment and will need to reschedule. Students with an unexcused absence will be penalized 20 points + 10 points for the EP.
- Due dates apply even when a student is absent. Absent students submit work electronically using the classesv2 drop-box.
- Late work is penalized at 5% per day. Submit late work electronically using the classesv2 drop-box.
- While inside the lab, students will wear a lab coat and eye protection. They will not use ear buds, head phones or cell phones for chatting. Students may use cell phones in an emergency.
- Personal or professional issues that impact one's ability to meet course responsibilities should be brought to Dr. DiMeglio's attention so that individual needs can be addressed.

### Lab penalties (point deductions)

- Late work: 5% per day, beginning the day it is due.
- Experimental Plan: if a student is not prepared for lab the penalty is 10 points, even if the student makes up the lab on another day.
- Leaving one's work station a mess – 5 points each time
- Unexcused absence-20 points + points on all related assignments

### Academic Integrity

We hope that you experience professional growth in this course, and the following guidelines are designed toward that goal. Work independently in the lab and on all lab assignments unless specifically instructed to work with others. Independently compose all assignments, including pre-lab plans, experimental notes, product data and spectra, reports and any other graded assignment. Refrain from photocopying or electronically copying material from course packets, text books, internet websites, and subsequently pasting such material into an assignment as if it were your own work. Refrain from copying, photocopying or electronically copying any information from another student's work (past or present!) and subsequently pasting that work into an assignment that will be graded. Refrain from allowing another student to copy any of your work that will be or has already been submitted for grading. When you are finished with this course DO NOT make your graded material available to another student. Refrain from providing or asking for information about the content of lab exams. Use properly referenced quotes and paraphrases that support your arguments and ideas. Provide proper references for any material that is not your own work, including personal communications. Students must identify people with who they collaborate in the writing of their assignments, and the nature of that collaboration. The course packet gives complete information on proper referencing. Students should know that in accordance with Yale policies, all matters involving academic honesty are automatically referred to the Executive Committee of Yale College.

### Grades

Numerical grades are calculated as  $(\text{total points earned} - \text{penalties}) / (\text{total points available}) \times 100$ . Letter grades are assigned at the end of the session by the instructor and each TA's set of students

is scaled as necessary. Grades are assigned by TA. Students earn points based on preparation (~20% of grade), participation and post-lab assignments (~50% of grade) and check out lab exam (~30% of grade).

**Late Assignments** are welcome but will be penalized at 5% per day. Late EPs are not welcome and will be assessed a 10 point penalty.

**Graded Assignments** will be returned in the same time frame given for their preparation. If you are not getting graded feedback, you should bring this to the attention of the course instructor so that it can be addressed.

**Grading Questions/Concerns** should be taken to the TA or the instructor within 1 week. Any issue **not easily resolved** with a TA should always be directed to the instructor.

### For FULL Course Information to classesv2 for CHEM 223

#### **Announcements**

- Lab Registration Instructions and Lab Section Assignments
- Changing to another lab section instructions
- Lab 1 Assignment

#### **Resources**

- Course Packet- contains ALL information necessary to course participation including this syllabus, course policies, scientific writing instructions, and experimental procedures and reading assignments.

### **Schedule for the two weeks of spring 2015**

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Key: CP = Course Packet; EP = Experimental Plan; PL = Post Lab Assignment; MP = melt point;

#### **Opening Days**

Through W, Jan 14

**W, January 14, 8 AM**

TH, January 15, 4 PM

TH, January 15, 5 PM

F, January 16

M, January 19

T-F, January 20-23

Preference selection for all organic chemistry lab sections

#### **Preference selection ends**

Lab section assignments are made and pushed to student worksheets

DS opens and students may self-shuffle to open seats

Friday is a Monday schedule. Monday students meet for Lab 1.

Classes do not meet

Lab 1 continues for Tuesday – Friday students

### ***The rest of the experimentation schedule and schedule of due dates appears in the course packet***

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#### **Grades: Point and penalties (TOTAL POINTS: 600)**

EPs: worth 10 points each for 90 points

Safety Quiz: 10 points

PL-A: 100 points

PL-B: 100 points

PL-C: 100 points

NMR Worksheet: 50

Check Out Exam: 150 points

#### **Penalties:**

- 1) unexcused absence = 20 points + all points of any related assignments
- 2) Late EP = 10 points
- 3) Late PL = 5 % per day

**ASSIGNMENT 1: read the COURSE PACKET through LAB 1**

**END SYLL**