Chemistry 112B: Organic Chemistry (Spring 2017)

Lectures:
Tuesday and Thursday, 8:00–9:30 am, 100 Lewis
Tuesday, 5:00–6:00 pm, 100 Lewis (Laboratory lecture)

Review Session:
Monday 4–6 pm, 9 Lewis (tentative, subject to change)

Lecture Instructor:
Prof. Richmond Sarpong (rsarpong@berkeley.edu)
841A Latimer Hall
Office hours: Monday 2–4 pm, 433 Latimer

Laboratory Lecture Instructor:
Dr. MaryAnn Robak (mrobak@berkeley.edu)
327 Latimer Hall
Office Hours: Tuesday 12–2 pm, 327 Latimer

Graduate Student Instructors:

Brian Wang	brianwang712@gmail.com	Head GSI
Sarah Klass	sklass@berkeley.edu	Section 301, Wed. 1–6 pm
Nicolle Doering	nicolle.doering@berkeley.edu	Section 401, Thurs. 1–6 pm
Jenna Franke	jfranke@berkeley.edu	Section 403, Thurs. 1–6 pm
Gloria Ortiz	gloriaor@berkeley.edu	Section 501, Fri. 1–6 pm
Caitlin Stevens	c.stevens@berkeley.edu	Section 502, Fri. 1–6 pm

Office Hours:
GSI office hours are held in 106 Latimer Hall. A google calendar of office hours will be posted on BCourses. All GSI office hours are open to all enrolled students – you are not limited to the GSI who teaches your lab section.

Class Web Site:
http://bcourses.berkeley.edu

Required Texts:
1. Organic Chemistry: Principles and Mechanisms by Joel Karty
2. Understanding the Principles of Organic Chemistry: A Laboratory Experience by Pedersen and Myers
3. A laboratory notebook with carbon-copy pages (ISBN: 9780738035871, stocked by the bookstore for CHEM 3AL/3BL – check your GSI for approval if you would like to use a different laboratory notebook)

Useful (but not required):
1. HGS Molecular Structure Kits, W. H. Freeman and CO.
2. Organic Chemistry As a Second Language: Second Semester Topics by David Klein

Course Attendance:
Attendance to the lectures each week is **strongly suggested**. Some of the topics covered in the lecture closely follow the structure of the textbook and some do not. Additional examples and alternative solutions that extend beyond the material presented in the book are provided.

- *Taking the midterms exams is mandatory*. Students who will be away from campus on an exam date for a sanctioned University event (e.g., university band, university athletic team – not club) must email the instructor and the GSI at least one week in advance of the planned absence. Upon email notification, a reasonable attempt will be made to arrange for an earlier date to take the exam. There will be no makeup exams any time after the scheduled date of the midterms.
- Students who have a last minute personal or family emergency and have to travel home or be in the hospital (a signed and stamped doctors note is necessary), should contact us as soon as possible. Unfortunately, we will not be able to accommodate a makeup exam any time after the scheduled date of the midterms. ***For students in this situation, to compensate for one missed midterm exam (and/or a poor performance) we will drop your lowest midterm score and replace it by your next lowest one.***
- *Taking the final exam is mandatory*. Students who have a last minute personal or family emergency and have to travel home or be in the hospital (a signed and stamped doctors note is necessary), should contact us as soon as possible. Unfortunately we will not be able to accommodate a makeup exam any time after the scheduled date of the final.

Laboratory Attendance:
Attendance in lab each week is mandatory.

- Requests for exceptions to this policy should be **emailed to Dr. Robak (mrobak@berkeley.edu) (please cc. your GSI on this email).** Include the following information in your email:
  - Your section # and GSI name
  - The reason for your absence
  - Information about your availability if you are requesting a makeup (There are sections on W/Th/F each week, makeups can only be scheduled during the same week)
- If sufficient advance notice and a good reason for the absence is given, an attempt will be made to arrange a makeup lab in an alternate section. If a makeup is not possible, this will count as the “dropped lab”

DSP Accommodations:
It is your responsibility to comply with the notification deadlines outlined in the "Handbook for New Students with Disabilities" (http://www.dsp.berkeley.edu/sites/default/files/handbook.pdf). Please make sure we receive your DSP letter ASAP so we can arrange for the required special accommodations.

"Proctoring or Testing: Students who anticipate the possibility that accommodations on examinations may be needed should make sure to establish eligibility for such accommodations before the start of the semester. Because many testing accommodations require the course instructor to make special testing arrangements and such arrangements take time, the student should notify his/her course instructor at the start of the semester, or as soon as the student knows testing accommodations will be needed with respect to examinations. Even after DSP has established the student's eligibility for testing accommodations in general, DSP still needs advance notice of the need for testing accommodations in the particular course and the specific exam – requests for testing accommodations are due to the student's Specialist (via SCARAB) at least three (3) weeks before a regularly scheduled test, and seven (7) weeks before a final exam, including associated requests for an amanuensis or scribe. At least a month before the specific exam, students are advised to inquire with their course instructor to be sure that the instructor has made arrangements for testing accommodations."
(Handbook for New Students with Disabilities, Fall 2013, p. 8)

Grading:
The course will be graded on the basis of 1000 points (600 points lecture/400 points lab), which are allocated as follows:

1. **Lecture Midterm Exam I** (**100 points**): Tuesday February 21st 8:00-9:30 am, 100 Lewis

2. **Lecture Midterm Exam II** (**100 points**): Thursday March 23,rd 8:00-9:30 am, 100 Lewis

3. **Lecture Midterm Exam III** (**100 points**): Thursday April 27th, 8:00-9:30 am, 100 Lewis

4. **Lecture Final Exam** (**200 points**): Thursday May 11th, 11:30-2:30 pm. Location TBA

5. **Lecture Quizzes** (**50 points***; 5 quizzes, 10 points each*): There will be a total of five lecture quizzes. The dates of these quizzes are posted on the course schedule. Each quiz will begin promptly at 8:10 am, and students who arrive late will not receive extra time. There will be no makeup quizzes.

6. **Lecture Problem Sets** (**50 points***; 5 sets in total, 10 points each*): There will be a total of five lecture problem sets. These will be distributed and due on the dates posted on the course schedule. Problem sets are due at the beginning of lecture. There are no makeup problems sets.

7. **Lab Lecture Quizzes** (**40 points**; best 4 of 5 quizzes, 10 points each): There will be a total of five lab lecture quizzes. These short quizzes will include questions that address recent material from lab lecture and/or lab experiments. Quizzes will begin promptly at 5:10 pm, and students arriving late will not receive additional time. There will be no makeup quizzes, but the lowest score will be dropped.

8. **Weekly Lab Assignments** (**220 points**; best 11 of 12 weeks, 20 points per week)

9. **Formal Lab Reports** (**60 points**; best 3 of 4 reports, 20 points each)

10. **Laboratory Exam** (**80 points**): Tuesday April 25th, 5:00-6:30 pm, 100 Lewis The written laboratory exam will cover all topics that have been presented in the lab lectures and experiments.

Lab Schedule:

Week	Experiment Title
Wed 1/18 – Fri 1/20	A: Check In; Safety Discussion; Review Worksheet
Wed 1/25 – Fri 1/27	B: The Wittig Reaction (#21)
Wed 2/1 – Fri 2/3	C: The Crossed-Aldol Condensation (#23)
Wed 2/8 – Fri 2/10	D: Synthesis of Warfarin – Setup (Handout)
Wed 2/15 – Fri 2/17	E: Synthesis of Warfarin – Purification (Handout)
Wed 2/22 – Fri 2/24	F: Synthesis of Warfarin – Analysis (Handout)
Wed 3/1 – Fri 3/3	G: Synthesis of Azo Dyes (Handout)
Wed 3/8 – Fri 3/10	H: Chemoselectivity in Transfer Hydrogenation (#36) (Reaction)
Wed 3/15 – Fri 3/17	I: Chemoselectivity in Transfer Hydrogenation (#36) (Presentation)
Wed 3/22 – Fri 3/24	*No Labs*
Wed 3/29 – Fri 3/31	*No Labs (Spring Break)*
Wed 4/5 – Fri 4/7	J: The Suzuki Reaction (#22)
Wed 4/13 – Fri 4/15	K: Synthesis of 1,2,3,4-Tetrahydro-β-Carboline (#30)
Wed 4/20 – Fri 4/22	L: Check out; Chemical Literature Presentations
Tues 4/26	Lab Exam (5:00-6:30 pm, note extension of the normal lab lecture time)