

**Chemistry 3B**  
**CHEMICAL STRUCTURE AND REACTIVITY**  
**Fall 2016**

(updated 8/23/2016)

**General Information:**

Chemistry 3B is the second semester of a two-semester survey of organic chemistry.

**Course Instructor**

Dr. MaryAnn Robak, 327 Latimer Hall, [mrobak@berkeley.edu](mailto:mrobak@berkeley.edu)

Please use e-mail to ask questions that require a private response, or to make an appointment to see me. Bring course content questions to office hours or post them on Piazza instead of emailing me.

**Head GSI**

Johnny Truong, [jtruong1992@berkeley.edu](mailto:jtruong1992@berkeley.edu)

**Lectures:**

You may attend either section, regardless of your registration.

Section 1: Tuesdays and Thursdays 8:00 - 9:30 am, 100 Lewis Hall

Section 2: Tuesdays and Thursdays 3:30 - 5:00 pm, 1 Pimentel Hall

**Review Sessions**

Thursdays, 7:00 – 9:00 pm, 10 Evans

**Office Hours**

A complete Google Calendar (including lectures, exams, Dr. Robak's office hours and GSI office hours) is posted on the course website (<https://bcourses.berkeley.edu/>). You will notice that office hours are almost continuously available! Any student in Chem 3B or 3BL (lab) is welcome to attend the office hours of any GSI.

Office hours are walk-in and very informal. You are highly encouraged to bring questions on a regular basis. In addition, office hours are a great place to review your notes, work on practice problems, and meet other students to study with even if you do not have specific questions before coming.

**Textbook/Materials**

- **Organic Chemistry: Structure and Function** (seventh edition), by Peter Vollhardt and Neil Schore. W.H. Freeman, New York. Older editions of the textbook (e.g. 6<sup>th</sup> edition) are also acceptable.
- **iClicker** (any version: iClicker, iClicker+, iClicker2)

**Additional Recommended Resources**

- Study Guide to accompany the textbook (N. E. Schore, Freeman, New York.)
- Molecular Structure Models (HGS Maruzen)
- Free online textbook:  
[http://chem.libretexts.org/Textbook\\_Maps/Organic\\_Chemistry\\_Textbook\\_Maps/Mop%3A\\_Organic\\_Chemistry\\_\(Vollhardt\\_and\\_Schore\)](http://chem.libretexts.org/Textbook_Maps/Organic_Chemistry_Textbook_Maps/Mop%3A_Organic_Chemistry_(Vollhardt_and_Schore))

## Grading:

### *“Standard” Total Points*

Description	Points
Midterm 1	200
Midterm 2	200
Quizzes (best 10 scores)	200
iClicker	100
Final Exam	300
<b>Total</b>	<b>1000</b>

### *“Alternate” Total Points*

- Lowest 200-pt score (Midterm 1, Midterm 2, or Quizzes) will be divided by 4 (scaled down to a maximum of 50 points)
- Final exam score will be multiplied by 1.5 (scaled up to a maximum of 450 points)
- Remaining scores unaffected.

Both the “Standard” and “Alternate” total points will be calculated for each student. The higher of the two totals will be used to assign the final letter grade according to the grading scale below:

Letter Grade	Point Range
A+	950 - 1000
A	850 - 949
A-	800 - 849
B+	750 - 799
B	700 - 749
B-	650 - 699
C+	600 - 649
C	550 - 599
C-	450 - 549
D	300 - 449
F	0

### **Students with Disabilities**

If you need disability-related accommodations in this class, please contact the Disabled Students Program (<http://dsp.berkeley.edu>) to request services. If you already have an accommodation letter from DSP, please check to make sure that the letter is submitted through the DSP system (there is no need to email a separate copy).

Students with exam accommodations will receive an email with details approximately one week prior to each exam. DSP exam accommodations for this class are arranged by Meggie Zimmerman ([meggie@berkeley.edu](mailto:meggie@berkeley.edu)). If you would like to set up an individual meeting with me to discuss your accommodations, please email me ([mrobak@berkeley.edu](mailto:mrobak@berkeley.edu)).

## Exams

You are responsible for checking the exam dates and times at the start of the semester to make sure that you do not schedule any conflicts.\* There will be no makeup exams. Students with a documented medical emergency should contact Dr. Robak as soon as possible to discuss course completion.

- Midterm 1: Thursday, Sept 29 from 7:00 – 9:00 PM.
- Midterm 2: Thursday, Nov 3 from 7:00 – 9:00 PM.
- The Final Exam will be held on Monday, Dec 12 from 3:00 – 6:00 PM

*\*If you are enrolled in the Tu/Th section of Phys 8A, your exam conflict on Nov. 3 will be accommodated. You should reserve time in your schedule beginning at 4:30 pm that day. Details/questions: contact Meggie Zimmerman ([meggie@berkeley.edu](mailto:meggie@berkeley.edu)).*

## Quizzes

There will be a short quiz at the start of each Tuesday lecture, focused primarily on the topics covered the previous week. There will be no makeup quizzes, but only the 10 highest scores will be counted toward the final grade. Take the quiz in only one section (morning or afternoon). (14 quizzes total, highest 10 grades counted)

## iClicker

iClicker questions will be posed several times during most lectures, so that you can practice applying the concepts as they are discussed.

- Register your iClicker on bCourses prior to Friday, Sept 9, 2016.
- Most iClicker questions will be scored for participation, and selected questions may be scored for correct answers. Credit may only be earned in one lecture per day.
- There will be opportunities to earn at least 130 points of iClicker credit throughout the semester, however only the first 100 points will count toward the final grade. There will therefore be no makeups or adjustments for absences, even with a valid excuse.
- Each person must have and use their own iClicker. Responding for another student is considered cheating. Any student caught with multiple iClickers in hand responding for another student will lose iClicker credit for the course, the iClickers will be confiscated, and the case will be referred to the Office of Student Conduct.

## Problem Sets

Problem sets (and answer keys) will be posted on the course website. These problem sets will not be collected or graded. Many of these practice problems will be in the same format and at the same level of difficulty as quiz and exam problems. You are responsible for all content covered in these problem sets.

The single factor that gives students the most trouble in this course is **falling behind**. This is because it is very difficult to learn all the material in the few days before an exam. To avoid this, I strongly recommend that you come to the lecture, keep up with the reading, and above all **work on the problems as soon as they are assigned**.

### Online Q&A - Piazza

The course website (bcourses.berkeley.edu) contains an online Q&A message board using the Piazza platform. Students can post questions and answer each other's questions in a wiki-style (collaborative editing) format. Instructors (Dr. Robak and GSIs) will also periodically answer questions here.

### Lecture Handouts

Most lectures will include a handout with problems to be solved at designated times during class. These questions will be complementary to the iClicker questions, providing an opportunity to practice drawing structures and mechanisms and writing explanations. Answers will be provided. The handouts will not be collected or graded.

### Course Content:

A detailed outline of course content and recommended reading assignments will be posted on the course website and may be periodically updated.

Brief Outline:

Midterm 1: Chapters 14, 15, 16, and portions of 22

Midterm 2: Chapters 17, 18, and portions of 24

Final: Chapters 19, 20, 23, and portions of 26

Organic chemistry is a concentrated and fast-moving subject. An important aspect of the subject is that it is very **cumulative**, with each new topic building upon and using concepts developed in the previous one. Because of this close interrelationship of topics, this is not a course in which it is possible to learn some topics but ignore others. The content covered in **Chem 3A** provides a foundation upon which many Chem 3B topics are built.

All exams in this course will be based on the material covered in lecture and problem sets. The textbook should be used as a supplement to the lectures. There will be several topics covered in lectures that are not in the text, and you will be responsible for knowing this material.