

Intro

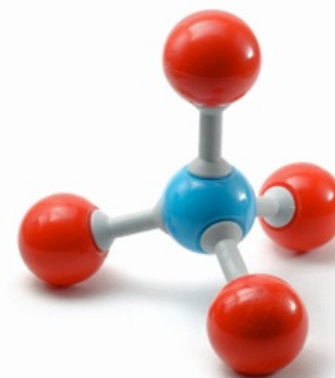
Pick up a copy of each handout
(unless you downloaded and
have that handout)

Welcome to Chem 30B

section 01
CRN 42691

Introduction to Organic & Biochemistry
(part II of Intro to General, Organic & Biochemistry)

If you are enrolled
or on the wait list—sign
the roll sheet!
If you are trying to add the
class, add your name!



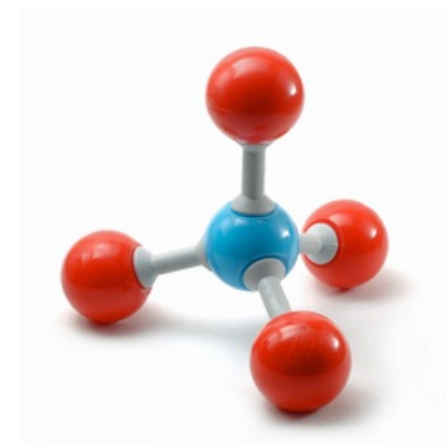
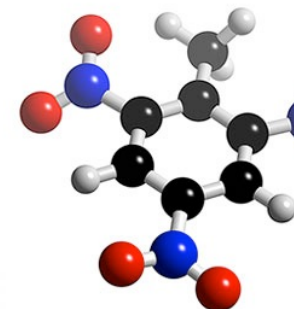
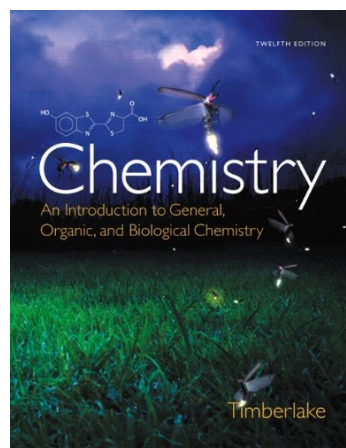
version 1.0

About Chem 30B



Are you in the right room?

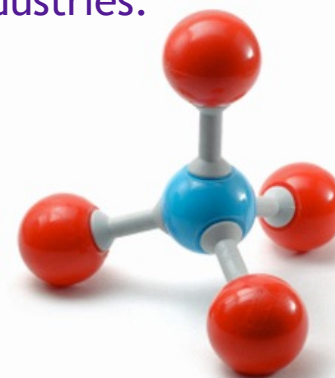
- ▶ Instructor
- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Content Overview
 - ▶ What we're going to cover.
 - ▶ The big picture.
- ▶ Evaluation (Grades)
 - ▶ How to get an "A"
 - ▶ Reports
 - ▶ Knowing where you are.
- ▶ Other Resources



Are you in the right room?

- ▶ This is Chem 30B: Introduction to General, Organic & Biochemistry – second quarter.
 - ▶ section 01
 - ▶ CRN 42691
- ▶ This class assumes you have taken Chem 30A
 - ▶ We will start right up where 30A left off, same book chapter 11...
 - ▶ We won't present anymore general chemistry
 - ▶ ... but you will need what you've already covered.
- ▶ This is a survey class.
 - ▶ We won't train you in the art of building organic molecules.
 - ▶ We won't go into a lot of detail about biological processes.
 - ▶ We will provide a guided tour of the foundations and major parts of organic & biochemistry.
- ▶ This class has a lab and lecture component, both are required.
- ▶ This class is optimized for folks planning on entering the health / medical industries.
- ▶ Check that your name is on the roll sheet.
 - ▶ Sign in so I know not to drop you.
- ▶ If you want to add this class:
add your name to the roll sheet and talk to me after class.

If you are enrolled
or on the wait list—sign
the roll sheet!
If you are trying to add the
class, add your name!



About Chem 30B

- ▶ Are you in the right room?

▶ Instructor

- ▶ Requirements

- ▶ Pre-req's

- ▶ Schedule

- ▶ Dates & Times

- ▶ Materials

- ▶ Content Overview

- ▶ What we're going to cover.

- ▶ The big picture.

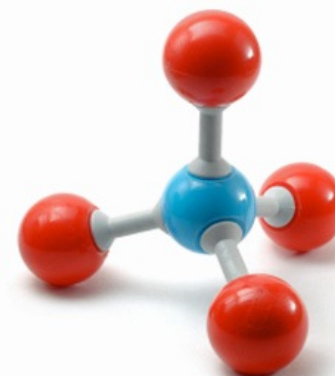
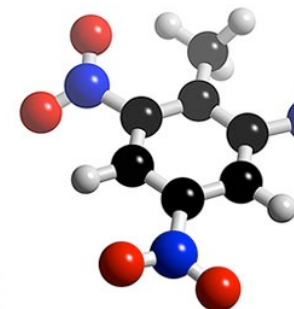
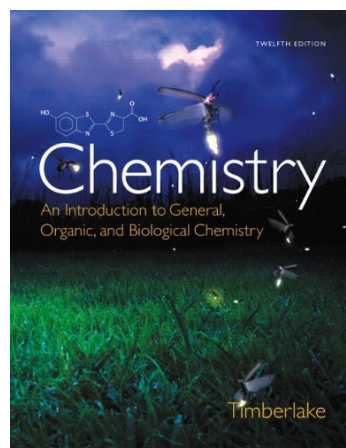
- ▶ Evaluation (Grades)

- ▶ How to get an "A"

- ▶ Reports

- ▶ Knowing where you are.

- ▶ Other Resources

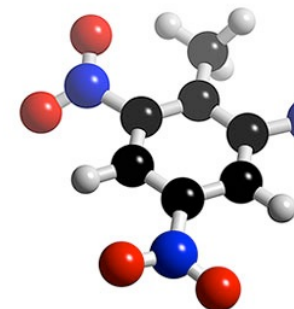


Instructor for Chem 30B



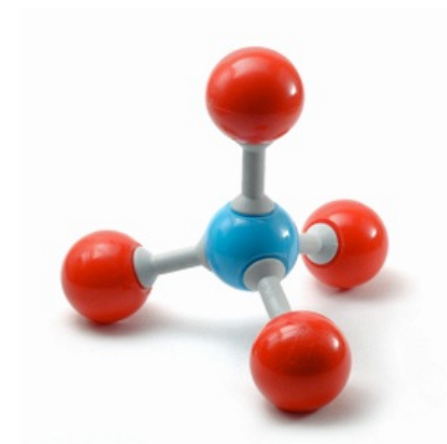
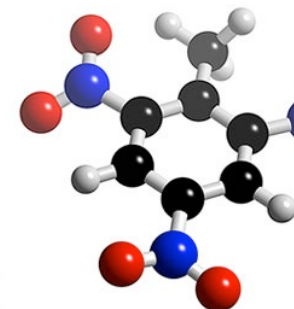
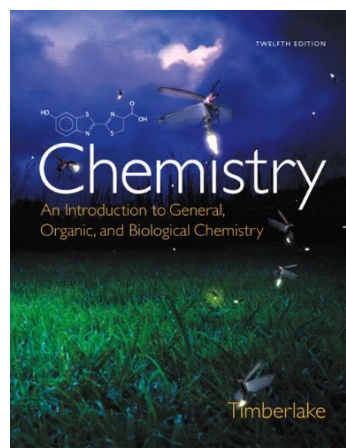
nick@fhdachem.com

- ▶ Prof. Nick De Mello, Ph.D. “Professor De Mello”
 - ▶ Lecturer & Lab Instructor
 - Lecturing College Chemistry since 2007
 - Created Educational Software at UCLA for McGraw Hill & the Ministry of Education of Malaysia
 - Post Doctoral Research at UCLA Computational & Organic Chemistry
 - Ph.D. at University of Pittsburgh (Pennsylvania) Synthetic Organic & Computational Chemistry
 - B.S. at Cal Berkeley (California) Nuclear & Synthetic Organic Chemistry
 - Sequoia High School Graduate ... just up the road.



About Chem 30B

- ▶ Are you in the right room?
- ▶ Instructor
- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Content Overview
 - ▶ What we're going to cover.
 - ▶ The big picture.
- ▶ Evaluation (Grades)
 - ▶ How to get an "A"
 - ▶ Reports
 - ▶ Knowing where you are.
- ▶ Other Resources



Requirements: Pre-reqs



- ▶ You must have taken either:
 - ▶ Chem 30A
 - ▶ Chem 50
 - ▶ Chem 1A (or equivalent)
 - ▶ If you haven't, you won't be able to follow the discussions and reading.
- ▶ You are recommended to have taken either:
 - ▶ English Writing 211 and Reading 211 (or Language Arts 211)
 - ▶ English as a Second Language 272 and 273



Requirements: Schedule

- ▶ This class meets: 4/7/15 - 6/25/15 T/W/Th
- ▶ LECTURE:
 - ▶ 05:30pm - 07:20pm (Tue/Thr)
 - ▶ in Room G1 of G Building
- ▶ LAB:
 - ▶ 07:30pm - 10:20pm (Wed)
 - ▶ in Room 2210 of SC2 Building
- ▶ Attendance is required.
 - ▶ Students missing more than two consecutive lectures, more than four lectures in total, or any lectures during the first two weeks of class, may be dropped from the class.
 - ▶ Two or more absences from lab may result in the student being dropped.
- ▶ There will be sign in sheet at each lecture and lab, you must sign the the sheet to have your attendance recorded.
- ▶ Not signing the sheet is the same as being absent.



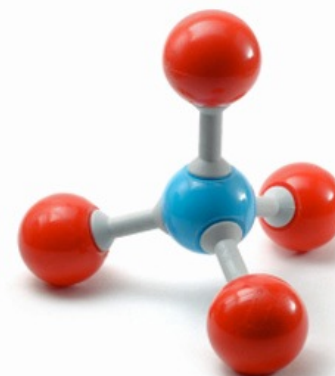
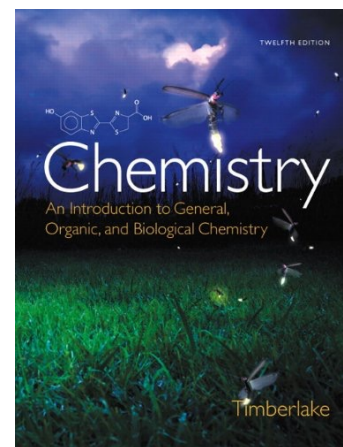
Requirements: Class Materials

▶ You'll need the following:

- ▶ Textbook, Timberlake Chemistry: An Introduction to General, Organic and Biological Chemistry, 12th Ed., Pearson / PrenticeHall 2015 ISBN 0-321-90844-9.
 - ▶ Earlier editions may be acceptable.
- ▶ Lab manual, Catalyst: Introduction to General, Organic and Biochemistry, custom lab manual for Chem 30A and 30B, Pearson Learning Solutions 2012 ISBN 1-256-17651-6 (available from the campus bookstore)
- ▶ Internet access (answer keys, worksheets, lecture slides, and other resources will be available only online).
- ▶ Laboratory safety goggles (can be purchased at the campus bookstore) are required for all lab experiments.
- ▶ A simple scientific calculator.

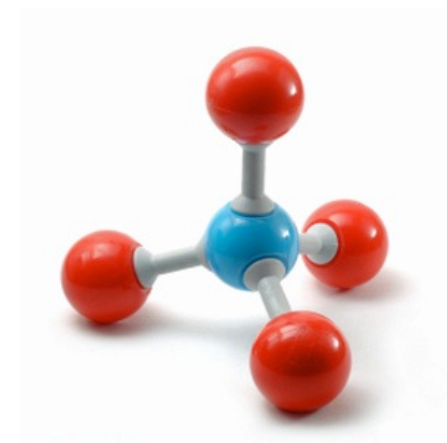
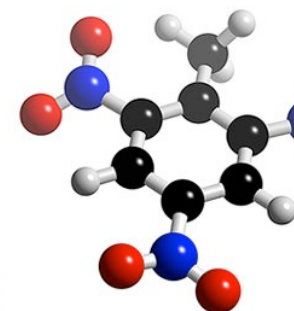
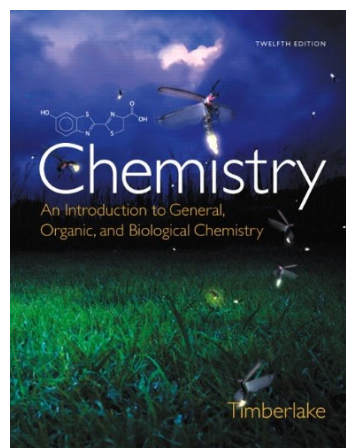
▶ Bring to every class:

- ▶ A spiral bound notebook for doing problems in class, taking notes, and recording data.
- ▶ Pencils (2) with an eraser.



About Chem 30B

- ▶ Are you in the right room?
- ▶ Instructor
- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Content Overview
 - ▶ What we're going to cover.
 - ▶ The big picture.
- ▶ Evaluation (Grades)
 - ▶ How to get an "A"
 - ▶ Reports
 - ▶ Knowing where you are.
- ▶ Other Resources



The Game Plan / Big Picture

11. Hydrocarbons

- ▶ Starting with **CARBON & HYDROGEN**.
- ▶ The skeletons of organic chemistry.

12. Alcohols, Thiols ... and more.

- ▶ Tweaking with **OXYGEN & SULFUR**.
- ▶ “Functionalizing” hydrocarbons.

Exam #1

15. Lipids

- ▶ Fats, cholesterol...
- ▶ Molecular resources of living systems.
 - ▶ Insulation, padding, energy storage, messengers, wiring...

16. Proteins & Enzymes

- ▶ Living molecule factories.
- ▶ Turning chemical reactions on/off.

Exam #3

13. Carbohydrates (organic “batteries”)

- ▶ Sugars: high energy alcohols.
- ▶ Stacking sugars to make other stuff.
 - ▶ Brick & Mortar for living systems.

14. Some Advanced Structures

- ▶ Multiple **OXYGENS & using NITROGEN**.
- ▶ Some organic synthesis.

Exam #2

17. Nucleic Acids & Protein Synthesis

- ▶ Building those Factories

18. Metabolism (as time allows)

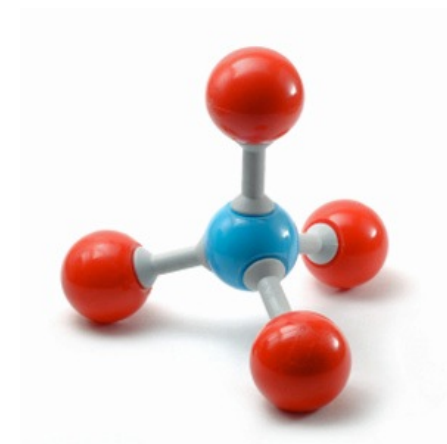
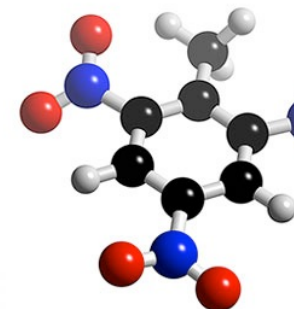
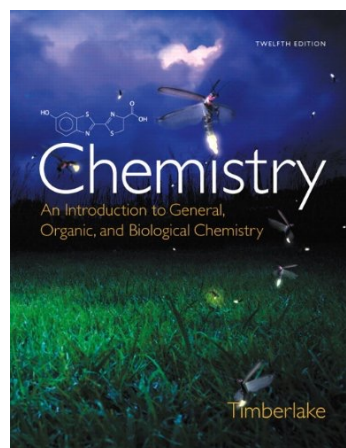
- ▶ Processing energy.

Final Exam



About Chem 30B

- ▶ Are you in the right room?
- ▶ Instructor
- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Content Overview
 - ▶ What we're going to cover.
 - ▶ The big picture.
- ▶ Evaluation (Grades)
 - ▶ How to get an "A"
 - ▶ Reports
 - ▶ Knowing where you are.
- ▶ Other Resources



Chem 30B – Evaluation

- ▶ There will be about 1,000 points available during the semester.
 - ▶ There will be three midterm exams (120 pts each), given during lecture section.
 - ▶ The final exam will be worth 160 pts, according to the college final exam schedule.
 - ▶ There will be a quiz for each chapter (40 pts), in lecture section.
 - ▶ Experiments will be hands on explorations of chemistry in lab section:
 - ▶ Each experiment will have a pre-lab and a report (15 pts combined).
 - ▶ Includes pre-lab quizzes or required at home preparation & reports
 - ▶ Best 8 scores will be counted.
 - ▶ There will be a lab practical or exam (60 pts).
 - ▶ Homework will be assigned from each chapter, solutions will be provided, homework will not be collected.
- ▶ There are no makeup exams. (You cannot take exams early)
- ▶ There are no makeup labs. (You cannot take exams early)

Exam #1

Exam #2

Exam #3

Final Exam

240 pts	Quizzes (6 scores; 40 pts each)	24%	Lecture 80%
360 pts	Midterm Exams (3 exams; 120 pts each)	36%	
200 pts	Final Exam (comprehensive; 200 pts)	20%	
120 pts	Lab Experiments (best 8 scores; 15 pts each) (includes pre-lab & reports)	12%	Lab 20%
60 pts	Lab Practical (60 pts)	6%	
20 pts	Lab Safety	2%	
1,000 pts		100%	



Evaluation

- ▶ Grades are a straight percentage of the points you score to the points available.
 - ▶ There is no curve.
 - ▶ There is no extra credit.
 - ▶ Progress reports will be provided after each midterm exam.
- ▶ There are no minus grades.
- ▶ If you are in the top half of either the B or C range (as long as campus policy allows) you will get a plus prefix.

A	90 - 100
B	80 - 89 %
C	70 - 79 %
D	55 - 69 %

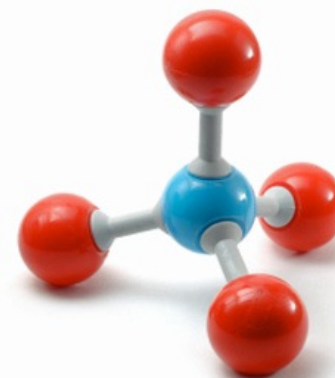
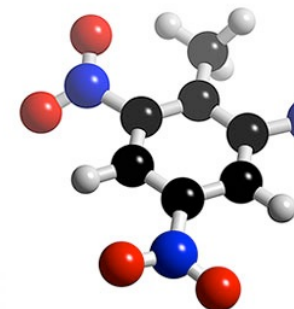
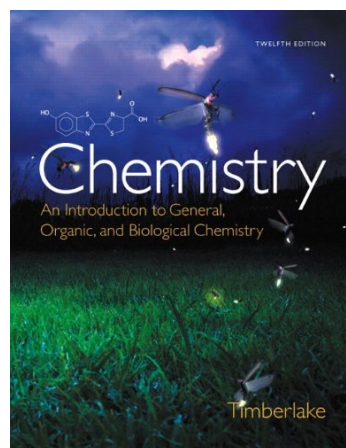


About Chem 30B

- ▶ Are you in the right room?
- ▶ Instructor
- ▶ Requirements
 - ▶ Pre-req's
 - ▶ Schedule
 - ▶ Dates & Times
 - ▶ Materials
- ▶ Content Overview
 - ▶ What we're going to cover.
 - ▶ The big picture.
- ▶ Evaluation (Grades)
 - ▶ How to get an "A"
 - ▶ Reports
 - ▶ Knowing where you are.



Other Resources



Additional Resources

▶ Chem Website 30B:

- ▶ The course syllabus, schedule, topics lists, study guides, worksheets, answer keys and other class resources can be found on the chemistry website for 30B at this URL:

▶ <http://chem.ws/30B>

▶ Topic Lists:

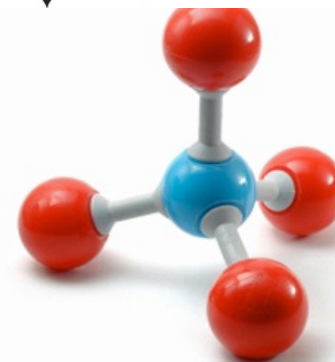
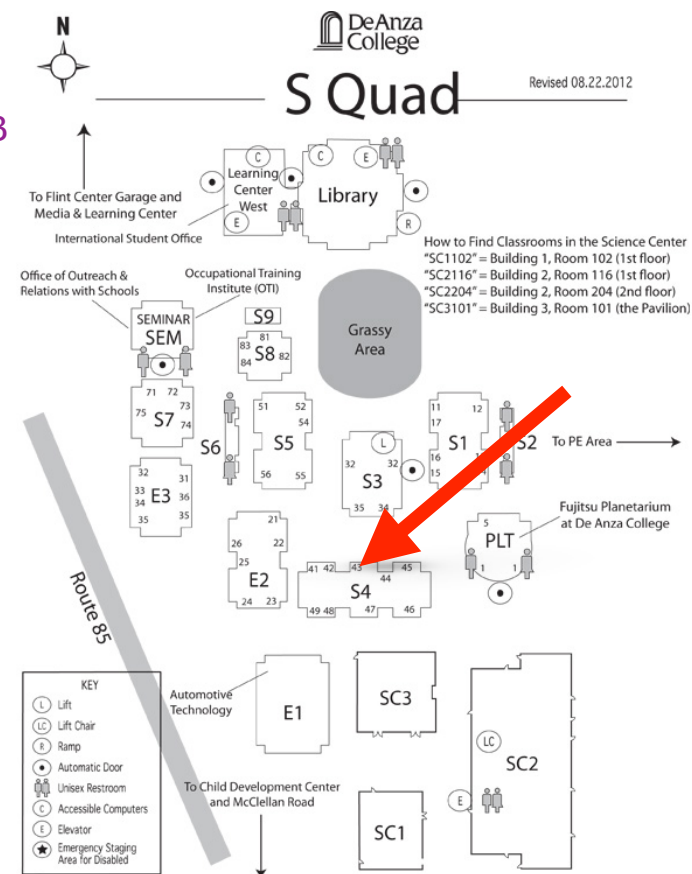
- ▶ A list of the specific topics we intend to cover in lecture and lab is provided on the class website, organized by chapter of the class textbook. Additional topics may be added during the semester and not all will be tested for on in any given exam or assignment. Students are encouraged to use this topic list in preparing for lecture, reviewing chapters, exam preparation, and determining if Chemistry 30B meets the student's personal objectives in studying chemistry.

▶ Student Success Center:

- ▶ The Student Success Center offers workshops, tutoring, and support for most De Anza classes.

- ▶ Math, Science & Technology Resource Center: S43 / 408.864.8683
- ▶ Academic Skills Center: ATC 302 / 408.864.8253
- ▶ General Subject Tutoring: ATC 304 / 408.864.8682
- ▶ Listening and Speaking Center: ATC 313 / 408.864.5385
- ▶ Writing and Reading Center: ATC 309 / 408.864.5840

▶ <http://www.deanza.edu/studentsuccess>



Questions?

