

Lecture Syllabus for Chem1A General Chemistry

Spring 2015 Sections 3&amp;4

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Office Hour: Thursday 4:00 – 5:00 PM, SC3106

Pre-requisites: Chemistry 50 or Chemistry 30A or satisfactory score on Chemistry Placement Test; Mathematics 114 or equivalent.Introduction

Chem1a is the first quarter course of a three-quarter sequence covers the fundamentals of chemistry, focusing on atomic and molecular structure, chemical composition and reactivity, and quantitative analysis. This syllabus explains requirements, expectations, and how to succeed in this course.

Course Structure

This course is split into two time periods: the lecture and the lab (see table below). One registration code automatically enrolls you in both instructional periods. Due to the fact that only one grade is assigned for the lab and lecture combined, the lecture and lab cannot be taken separately under any circumstances. This means that, even though you may only need to complete the lecture portion of the course to satisfy your transfer requirements, or if you have previously taken the lab at De Anza or at another institution, you are still required to complete the lab this quarter.

Course Meetings	Room	Section 3 (42664)		Section 4 (42665)	
		Day	Time	Day	Time
Lecture (Wilcox)	S32	TTh	2:30 – 3:45 PM	TTh	2:30 – 3:45 PM
Lab	SC2202	MW	11:30 AM – 2:20PM <u>Wilcox</u>	TTh	11:30 AM – 2:20 PM <u>Esfandiari</u>

Sections: This course consists of two lab sections. Once you are enrolled in a particular lab section, you must attend only that section for the duration of the quarter.

Attendance

- Arrive on time! Lectures start promptly at 2:30 PM. Labs start promptly at 11:30 AM.
- Due to the high number of students wishing to enroll in this class, any unjustified absences during the first two weeks of lab will result in you being dropped.
- Any student with two or more absences from lab meetings or two or more absences from class meetings may be dropped from the class.

Online Resources

Link to homework at Connect: [https://connect.mheducation.com/class/chem1a\\_3-4\\_sp15](https://connect.mheducation.com/class/chem1a_3-4_sp15).

- An access code is provided at no additional cost with the purchase of a new text from the college bookstore otherwise you must purchase access separately at <http://connect.mcgraw-hill.com>.
- See the document: “CONNECT\_registrationDetails” for how to log on to Connect.
- Course Studio for course documents, lecture slides, announcements, and help documents. Course Studio is accessible to students via MyPortal. For details on how to find the Consolidated Course see the document: “Course Studio Chem1a\_3&4 Spring 2015”.
- Check Course Studio and your email regularly.
- Course announcements will be sent to your email address.

Required Materials

- Textbook: *Chemistry: The Molecular Nature of Matter and Change*, 7e edition by Silberberg & Amateis. ISBN: 0078138795.
- Microscale General Chemistry Laboratory, 2008; De Anza edition, Szafran, Pike, Foster (John Wiley & Sons: 2008, ISBN 0-471-77762-5)
- Chemistry 1A Vernier Laboratory Experiments, 1st Edition, Cinzia Muzzi, David Gray, Nga Doan
- Scientific calculator with exponential notation, logarithm, and square root functions. Programmable calculators are not allowed for quizzes and exams. You may not use your phone as a calculator for any quizzes, exercises, or exams.

Other Resources

- Tutoring: De Anza's tutorial center is in L47. This and many other campus services can be found as part of the student success center: <http://www.deanza.edu/studentsuccess>
- Disability Support Program and Services: DSPS can help you get the right tools to succeed. Their website is <http://www.deanza.edu/dsps/>

Grade for this course

Your course grade will be assigned according to the table on the right.

Item	% Total
Online Homework	10
Quizzes	5
Lab Grade	30
Chapter Exams	35
Final Exam	20
Total	100

- Homework is completed on the Connect Website. Homework assignments have questions and problems similar to those found on Quizzes, Exams, and the Final. Connect offers assistance by providing access to relevant sections of the eBook and hints with no deduction to your scores.
- Quizzes are unannounced and may cover any material previously presented in lecture. Quizzes are usually distributed at the start of lecture and you will be given 10 minutes to complete each quiz.
  - Students arriving after the quiz period will NOT have an opportunity to make up the quiz.
  - Your lowest quiz score will be dropped.
- Lab work is an important part of this course. The goals of the laboratory program include demonstration of chemical principles and to train students in safe laboratory procedures. You are expected to participate in lab, complete lab worksheets and reports. You must receive a passing lab grade in order to pass this course. More details on the lab program can be found on the laboratory syllabus for your section.
- Dates of Exams are listed on the class schedule (found at the end of this document). Missing an exam will result in a zero for that exam without proof of an excused absence (doctor's note, police report, etc.). The opportunity to make up an exam may be given but missed exams cannot normally be made up.
- The final exam is cumulative and will have the same format as the chapter exams. You must pass the final exam to pass the course. The final exam will be given Thursday, June 25 at 1:45 - 3:45 p.m. If you cannot make this time, you should not enroll in this class.
- Your course letter grade will be based on the percentage of possible points earned (% Score), as shown in the table below.

A+ (100-98)	B+ (89-88)	C+ (79-77)	D (67-62)
A (97-92)	B (87-82)	C (76-70)	D- (61-60)
A- (91-90)	B- (81-80)	D+ (69-68)	F (59-0)

Letter Grade (%Score)

### Academic Integrity Policy

Common forms of academic dishonesty are: plagiarism, fabrication and cheating. Cheating or plagiarizing another student's work, in whole or part, will result in a zero for the assignment and a referral to the dean. Any case where you attempt to gain unfair advantage over other students or attempt to pass off another's work as your own is cheating. You implicitly agree to abide by the Honor Code as a condition of enrollment in this class: <http://www.deanza.edu/studenthandbook/academic-integrity.html>

### Student Learning Outcomes

1. Identify and explain trends in the periodic table.
2. Construct balanced reaction equations and illustrate principles of stoichiometry.
3. Apply the first law of thermodynamics to chemical reactions.



### How to Succeed in this Course

This is a fast-paced course - we cover new material in every class meeting. You must practice effective time management and plan for time in addition to class meetings to succeed at this course. Give yourself TIME! Plan on spending at least 2 hours studying outside of class for each hour we spend together in class or lab lecture. Do this every week, not just the week before the exam. Start early and it will be much easier later. You are responsible for chapters of the text listed on the class schedule; all material covered in each lecture meeting, homework assignments, and lab assignments.

Staying caught up with the class work throughout the term is essential to understand of the material and for you to receive a good grade. Procrastinating and putting off doing work (rushing assignments, cramming for exams) will result in poor performance and negatively affect your grade.

Come to class having read the assigned chapter and be ready with questions about the concepts you didn't understand. Really, come to class with the assigned chapter already read. This simple practice will make a huge difference for you.

Treat this course as a course in a foreign language. You must review and practice problems in order to understand chemistry. To successfully learn the course material you must also schedule time for review and time to practice solving problems. Depending on learning style, previous experience and courses completed, the amount of time required for each student to succeed at this course will vary. You will master the complex concepts presented in this course only through practice. Connect homework is assigned to help you with this and you also can do problems at the end of each chapter.

Don't try to memorize EVERYTHING. This is a common trap that many students fall into. While there are certain topics that must be committed to memory, strive to develop an intuitive understanding of the underlying framework of the material. Once you have that you will often be able to derive answers from a much smaller pool of "memorized" data.

Join a study group, exchange phone numbers of classmates whom you can call for help. In the group, take time to present concepts to one another. The BEST way to solidify a topic in your mind is to have to teach it to someone else!

As you listen, take notes, read, or work problems, try to keep an open mind, be curious, and think about the implications of the concepts and problems. Chemistry explains much of how the world around us works and understanding how the world works will impress your friends and help you grasp the material. The more connections you can make between the material in the course and the world around you, the more sense this class will make.

Date Monday	Wk #	Lecture Tuesday 2:30 - 3:45 PM Room S32	Lecture Thursday 2:30 - 3:45 PM Room S32
4/6	1	Introduction & Chp 1 Properties of Matter , Problem Solving, & Significant Figures	Chp 2 Atomic Structure
4/13	2	Chp 2 Bonding & Names <i>Chp1 Home Work Due</i>	Chp 3 The Mole & Formulas Chp 3 Stoichiometry
4/20	3	Chp 3 Stoichiometry <i>Chp2 Home Work Due</i>	Chp 4 Reaction Types
4/27	4	Chp 4 Reaction Types <i>Chp3 Home Work Due</i>	Chp 6 Calorimetry Chp 6 Thermochemistry
5/4	5	<b>Exam 1</b> <i>Chp4 and Chp6 Home Work Due</i>	Chap 7 Light & Atomic Spectra
5/11	6	Chp 7 Quantum Mechanics	Chp 8 Electron configuration
5/18	7	Chp 8 Periodic Trends: Atomic Properties & Chemical Reactivity <i>Chp7 Home Work Due</i>	Chp 9 Types of Bonds Chp 9 Bond Energy & Chemical Change
5/25	8	Chp 9 Bond Polarity	<b>Exam 2</b> <i>Chp 8 and Chp9 Home Work Due</i>
6/1	9	Chp 10 Lewis Structures	Chp 10 VSPER
6/8	10	Chp 10 VSPER Chp 10 Molecular Polarity	Chp 11 Valence Bond Theory & Orbital Overlap <i>Chp10 Home Work Due</i>
6/15	11	<b>Exam 3</b> <i>Chp11 Part 1 Home Work Due</i>	Chp 11 Molecular Orbital Theory Review for Final
			<i>Chp11 Part 2 Home Work Due</i> <b>Final Exam</b> <b>Thursday, June 25 at 1:45 - 3:45 p.m.</b>

**Important Dates**

Saturday, April 18 :: Last day to [add](#) quarter-length classes. *Add date is enforced.*

Sunday, April 19 :: Last day to [drop](#) for a full [refund or credit](#) (quarter-length classes). *Drop date is enforced.*

Sunday, April 19 :: Last day to [drop](#) a class with no record of grade. *Drop date is enforced.*

Friday, May 1 :: Last day to [request pass/no pass](#) grade. *Request date is enforced.*

Saturday - Monday, May 23-25 :: Memorial Day Weekend (no classes)

Friday, May 29 :: Last day to [drop](#) with a "W." *Withdraw date is enforced.*