

Chemistry 1A (0030 and 0032)
College of the Siskiyous
Instructor: Jenny Jensen, M.S.
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Chemistry 1A: 1st Semester General Chemistry [5 units]

Lecture	Lab	Problem Solving	Office Hours
TR 1:00 - 2:30 pm	T 8:00 – 11:00 am T 2:30 – 5:30 pm	R 2:30 – 5:30 pm	MWF 10:30 – 11:30 am TR 12:00 – 1:00 pm
Life Science 9	Life Science 12	Life Science 9	Life Science 13

Chemistry 1A involves a detailed study of the basic principles and calculations including atomic structure, bonding, intermolecular forces, stoichiometry, oxidation-reduction reactions, solution chemistry, gas laws, solid state and colloidal chemistry

Prerequisites: Math 53 or qualification through assessment with a C or better

Advisory: Chemistry 3A, high school chemistry, or equivalent with a C or better

Required Course Materials

1. Text: Chemistry: A Molecular Approach To Chemistry 1/E. Tro. (Study Guide optional)
2. Lab Manual: Chemistry 1A. Catalyst, Prentice Hall
3. Lab Materials: Lab safety goggles (indirect vent). Lab coat (provided)
Chemistry Notebook – sewn and quad ruled
4. Other Materials: Scientific Calculator: log, exponential, non-programmable
ETUDES: <https://etudes-ng.fhda.edu/portal>

Grading

Quizzes	100 points (20 pts each - low drop)	A: 90-100%
Exams	300 points (100 pts each)	B: 80-89%
Lab Reports	300 points (25 pts each)	C: 70-79%
Problem Solving	100 points (10 pts each)	D: 50-69%
Final	200 points	Total = 1000 points

Lecture

- This class requires your dedicated time and commitment (3 hours of lecture, 3 hours of lab and 3 hours of problem solving per week). Please turn off your cell phones and other electronic devices otherwise you will be asked to leave the classroom! We will treat each individual with respect and always conduct mature behavior in both the lecture and laboratory.
- Homework will be assigned but NOT collected or graded. It is strongly advised to complete the homework to receive an A, B or C grade.
- Quizzes (20 points each) will be given during Problem Solving and may consist of closed note, open note, pop, or group quizzes. A zero score will result if you are absent. You can expect 6 quizzes; the lowest score will be dropped. No makeup quizzes are given.
- The exams (100 points each) will be taken during Problem Solving and may include multiple choice (scantrom #882 - provided), fill-in, true/false, problem solving and short answer. No makeup exams are given, expect for dire, documented emergencies!
- The final exam (200 points) will be a cumulative, multiple choice exam. You must take the final in order to pass the course with an A, B, or C. No makeup finals are given.
- Extra credit (25 points) will be assigned and discussed during the semester.

Laboratory

- Please see the laboratory handouts

Problem Solving

- Problem Solving will consist of practice worksheets and other relevant activities to the material we are covering in lecture.
- Worksheets are with 10 points each and will be due at the end of class unless instructor indicates otherwise.
- Exams and Quizzes will be given during Problem Solving.

OBVIOUSLY CHEATING IS NEVER TOLERATED! IF CAUGHT CHEATING OR PLEGGARIZING AN AUTOMATIC ZERO SCORE WILL BE GIVEN. PLEASE SEE THE STUDENT HANDBOOK FOR MORE INFORMATION

Student Learning Outcomes

1. Demonstrate proficiency in solving mathematical problems that require identifying key data (recognize which is important and which is not) and constructing correct formulas for unit conversions, ratios and stoichiometry.
2. Connect knowledge of atomic and kinetic theories of matter to how atomic and molecular properties are responsible for chemical and physical behavior observed at the macroscopic level.
3. Compare and contrast the details of ionic, covalent, and intermolecular bonding and describe how energy changes are related to temperature, motion at the atomic level, and changes in chemical bonding.
4. Practice safe and effective laboratory skills, including the ability to recognize limitations of physical measurements, apply appropriate rules for significant figures, complete measurements in an accurate and precise manner.
5. Design experiments and interpret data according to the scientific method.

College of the Siskiyous Resources

- Counseling and Advising: 938-5353
- Disabled Student Services and Programs: 938-5297, Eddy Hall 1
- Library: 938-5331
- Computer Lab: 938-5324
- MESA: 938-5272, Life Science 7

College Holidays

Sep 7 – Labor Day
Oct 9 – Campus Planning Day
Nov 11 – Veterans Day
Nov 26-27 – Thanksgiving

Other

- If you have any disabilities that may affect your ability to fully participate please notify me within the first 2 weeks of class and bring written verification from the appropriate program
- Please feel free to ask questions and meet with me during office hours. If you cannot meet during office hours we can schedule another time
- The instructor reserves the right to change the information provided in this syllabus and schedule

Schedule (tentative) Chemistry 1A

Lecture: TR, 1:00 – 2:30 pm

Lab: T 8:00 – 11:00 am and 2:30 – 5:30 pm

Problem Solving: R, 2:30 – 5:30 pm

Week	Date	Lecture	Lab	Problem Solving	Important
1	Aug 18 Aug 20	Ch1. Matter & Measurement	Laboratory Safety and Notebooks	Introduction	
2	Aug 25 Aug 27	Ch 2. Atoms and Elements	Check in and Basic Lab Techniques	Problem 1	Quiz 1
3	Sep 1 Sep 3	Ch 3. Chemical Equations	Chemical Formulas	Problem 2	
4	Sep 8 Sep 10		Reactions in Aqueous Solutions	Problem 3	Quiz 2
5	Sep 15 Sep 17	Ch 4. Chemical Quantities	Activity Series	Review	
6	Sep 22 Sep 24		Gravimetric Determination	EXAM 1	
7	Sep 29 Oct 1	Ch 5. Gases	Heat of Neutralization	Exam Return Problem 4	Quiz 3
8	Oct 6 Oct 8	Ch 6. Thermochem	Atomic Spectra and Atomic Structure	Problem 5	
9	Oct 13 Oct 15	Ch 7. Quantum	AA Spectroscopy (handout)	Problem 6	Quiz 4
10	Oct 20 Oct 22		AA Spectroscopy Continued	Problem 7	
11	Oct 27 Oct 29	Ch 8. Periodic Properties	Molecular Geometries	EXAM 2	
12	Nov 3 Nov 5	Ch 9. Chemical Bonding I	Determination of R	Exam Return Problem 8	Quiz 5
13	Nov 10 Nov 12	Ch 10. Chem Bonding II	Antacids (handout)	Problem 9	
14	Nov 17 Nov 19		Antacids Continued	Problem 10	Quiz 6
15	Nov 24 Nov 26	Ch 11. IMF HOLIDAY	Antacids Continued		
16	Dec 1 Dec 3		Colligative Properties	EXAM 3	
17	Dec 8 Dec 10	Ch 12. Solutions	Checkout	Exam Return	
18	Dec 14 Dec 15 Dec 16 Dec 17	FINALS 1:00 – 3:00 pm			

Grade Keeper

Chemistry 1A, Jensen
Fall 2009, TR

QUIZZES and EXAMS	
Quiz 1	
Quiz 2	
Quiz 3	
Quiz 4	
Quiz 5	
Quiz 6	
Dropped Quiz	
Exam 1	
Exam 2	
Exam 3	
Final	

LABS	
Lab Techniques	
Chem Formulas	
Reactions	
Activities Series	
Gravimetric	
Heat of Neutral	
Atomic Structure	
AA Spectroscopy	
Molecular Geom.	
Determination of R	
Antacids	
Colligative	

PROBLEM SOLVING and EXTRA CREDIT	
Problem 1	
Problem 2	
Problem 3	
Problem 4	
Problem 5	
Problem 6	
Problem 7	
Problem 8	
Problem 9	
Problem 10	
Extra Credit	