

Chemistry M01A - General Chemistry I

Syllabus

Fall 2008

Dr. Daniel Evans

Office Hours: 10:00-11:00 W

Office: LMC 201

My email address: dr_dhe@yahoo.com (faster) devans@vcccd.edu (alternative)

Phone: 818-472-8039 (emergencies only, I respond better by email for questions)

Class Notes will be posted during the semester at: www.LATrails.com/mc/

Division of Natural Sciences

Dean: Kim Hoffmans

Office: LMC 102

Phone: 805-378-1459

Department Chair

Omar Torres

PS-128

805-378-1400x1728

Important Dates:

First Day of Classes: August 18

Drop with refund: August 31

Labor Day Holiday: September 1

Drop without a "W": September 12

Veteran's Day Holiday: November 10

Drop with a "W": November 21

Comprehensive Final: December 17 (**7:00** – 9 am)

Class Times and Location

CRN: 70854

Lecture PS 204

Monday/Wednesday: 7:30 am - 9:50 am

Lab PS 102

Monday: 10:00 am - 12:50 pm

Course Description:

This course introduces atomic theory and stoichiometry; thermochemistry; quantum theory and electronic structure of atoms; chemical bonding and molecular structure; physical behavior of gases; states of matter and phase equilibria; solutions; titrations and qualitative analysis. Lab provides use of analytical balance; spectroscopy; gravimetric and volumetric analysis; stoichiometry; thermochemistry; solutions; titrations; qualitative analysis; colligative properties and distillations.

Expectations of Students

It is expected that students will come to class prepared each day, on time, with cell phones off. They should read from the textbook between each class, complete assignments on time, and fully participate in class activities. Seek help from the instructor, tutor, or others at the first sign of difficulty. Be respectful and considerate of everyone in the class. And, please ask questions and share relevant comments.

Prerequisite

Completion of Chem. M12 and Math M03.

Required Materials

Chemistry, Fifth Edition by McMurry, Fay

Chemistry 1A Laboratory Manual; or download at

{<http://sunny.moorparkcollege.edu/~chemistry/links.html> }

A scientific calculator. Please bring a calculator every day. (No other devices allowed for exams)

Scantrons (#882) with 50 questions on both sides (for exams)

Grading Policy

EXAMS (450 points/44%)

There will be 4 problem mid-term exams of 150 points each during the semester, the lowest scored test will be dropped. No make-ups will be allowed unless I hear from you within a day of the actual exam time and accept your excuse. You must contact me if you will miss an exam, by leaving a message on voice mail 818-472-8039 or e-mail, dr_dhe@yahoo.com.

FINAL EXAM (200 points/20%) December 17 at 7 am

The final exam will be **comprehensive** and it will be **multiple choice**. To the final bring a #882 scantron sheet with 50 questions on either side, #2 pencils, calculator, and a single sided sheet of paper 8 1/2 x 11 inches that may have whatever notes you want. The note page cannot have anything stapled, taped or glued onto the sheet, or it will be confiscated.

QUIZZES and Problem Sets (approximately 104 points/10%)

There will be a quiz (graded, 10 points) or problem set (checked for completion, 8 points) on each chapter. The main purpose for the quizzes and problem sets is to see where your weak areas are in the material and to prepare you for the problem exams.

LAB GRADE/ Experiments (170 points/17%)

Labs are required to get a passing grade in the course. Have your laboratory data initialed each day. If you miss more than three labs, you may be dropped from the course! It's worth making up labs. If you miss a lab it may be possible to make it up in another Chem M01A class when they do the lab you missed (Have make-up professor initial the lab report). All lab scores will be used to determine your final grade. Laboratory totals will be 10 points each. **Wear Eye Protection in Lab. Any wet lab reports turned in late must be initialed by me before leaving the lab.**

Homework (approximately 104 points/10%)

Homework sets are assigned using an online system. Homework will be given 8 points per chapter. It is to your benefit to work out the problems, this is how you prepare yourself for the tests. Do homework at [masteringchemistry.com] or start at [firstdayofclass.com]. You will need an access code that comes with your textbook. Or it can be purchased separately on the website if you didn't buy a new book. You will need to log into course: MCEVANS29886.

Grade Scale (total points is approximately 1028)

Your Grade will be based on an adjusted total and the percentages computed and graded as follows: 90-100% = A; 80-89.9% = B; 70-79.9% = C; 60-69.9% = D; less than 60% = F. **There are no "W" grades given by the instructor.** For your grade point sake, be sure to officially drop any class which you stop attending; otherwise, your grade will be an automatic failure.

If you need extra help outside of class time, make an appointment with me. Also, I would appreciate notice when you cannot make it to class.

Cheating

Don't do it!! **Succeed with your own intellect.** Using someone else's data, instead of the data you (and your partner in some cases) collected is one of the things that is considered cheating.

Copying lab reports is another example of cheating. If you do not understand a concept, the instructor will gladly work with you individually. Free tutoring is also available at the Learning Center. If you do attempt to cheat or to help someone cheat, expect an "F" for the assignment when you are caught. **Cheating is not tolerated. You can succeed on your own.**

Safety

Safety glasses must be worn during all experiments. Immediately report all accidents to the instructor. Proper attire for class is long pants, closed toe shoes (no sandals), and a shirt with close fitting sleeves (no loose cuffs to dip in chemicals). Long hair must be tied back. Unsafe behavior may result in suspension from the class and possibly the course. Examples of such are not limited to the following: working without safety glasses, ignoring safety warnings printed in a laboratory procedure, or performing unauthorized experiments.

Lab Reports

Lab reports are due at the beginning of the next class. On your *data sheets*, or additional paper, if calculations are required, you must show a representative example. Answer the *questions* at the end of the lab. Then *write a paragraph or two discussing the experiment.*

The purpose of the "*discussion*" is to 1) *explain why your results* did or did not match your hypothesis, 2) explain any deviations from the written procedure and how they affected the results. Things you could include in your discussion: *sources of error, deviations from procedure, problems encountered*, things that did not work as expected, whether the results fit your hypothesis, *other things that you would have liked to know about or learn* from the experiment; examples of how the concepts demonstrated in the lab apply to real life.

Learning Disabilities

If you have a learning, attention, or physical disability that may require classroom or test accommodations, please register with ACCESS at 378-1461. Verification from ACCESS is required before any classroom or testing accommodations can be made.

Disclaimer

This syllabus represents how I would like the course to run. Various circumstances may force me to change as the semester progresses, so please note that this syllabus is subject to change at my discretion.

Chemistry Web Sites

www.moorparkcollege.edu/chemistry/ Journal of Chemical Education (link)

Username: MOORPARK COLLEGE Password: 45167

Periodic Tables at www.sciencegeek.net/tables/tables.shtml

<http://webbook.nist.gov/>

www.webelements.com

www.chemclub.com

www.exploratorium.edu

ice.chem.wise.edu

www.chemistry.about.com

siri.uvm.edu/msds/

www.acs.org/portal/chemistry

Chem. 1A Lab Schedule, Fall 2008**Dr. Evans**

Week of	Lab #	Lab
August 18	1	Check-in, Safety, Measurements
August 25	8	Calorimetry and the Law of Dulong and Petit
September 1		Labor Day (No Classes)
September 8	3	Weight Analysis of Copper Oxide
September 15	5	Determination of Avogadro's Number from Electrodeposition
September 22	2	Graphical Representation of Data and the Use of Excel®
September 29	9	Emission Spectra of Hydrogen, Helium and Mercury
October 6	4	Resolution of a Mixture by Fractional Crystallization
October 13	7	Qualitative Analysis: The Ten Bottle Mystery
October 20	10	Geometrical Structure of Molecules and Ions using Molec. Models
October 27	11	MW of an Unknown Volatile Liquid
November 3	12	Molar Volume of a Gas and % KClO_3 in an Unknown Sample
November 10		Veterans Day (No Classes)
November 17	13	Classification of Chemical Substances
November 24	15	Compound X & Y Part I, and II (conversion of X to Y)
December 1	15	Compound X & Y Part III, IV, V & VI (melt. pt, pH, solubility, std. NaOH, titration of X & Y)
December 8	15	X & Y Part VII & VIII (Det. of MW by Freezing Pt. Dep., IR & check out

Chem. 1A Lecture Schedule, Fall 2008 Dr. Evans

Week of	Chapter	
August 18	1	Fundamentals: Matter and Measurement
August 25	2	Atoms, Elements, Compounds, Mixtures
September 1		Labor Day (No Classes Monday)
	3	Stoichiometry
September 8	3	Stoichiometry First Test
September 15	4	Aqueous Reactions and Solution Stoichiometry
September 22	14	Acid-Base Equilibria (Sections 1-6)
September 29	9	Gases
October 6	8	Thermochemistry 2nd Test
October 13	8	Thermochemistry
October 20	5	Atomic Structure
October 27	6	Periodic Properties of the Elements
November 3	6	Basic Concepts of Chemical Bonding 3rd Test
November 10		Veterans Day (No Classes Monday)
	6	Basic Concepts of Chemical Bonding
November 17	7	Molecular Geometry and Bonding Theories
November 24	10	Intermolecular Forces, Liquids, and Solids
December 1	11	Properties of Solutions
December 8		4th Test
December 15		Comprehensive Final on December 17 at 7am