

Chemistry 111 Syllabus

Summer I 2012

Instructor: Dr. Mark Iannone
Caputo 318

Office hours: tba
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Course materials

Chemistry: Principles and Reactions by Masterton, Hurley and Neth, ISBN 978-1-111-42710-8.

Greco, Rickard, Weiss, *Experiments in General Chemistry*, any ed. (9th ISBN = 0131493914)

Bound "QUAD RULED COMPOSITION" lab notebook with sewn binding

Lab safety goggles or safety glasses with side shields.

Calculator with log, ln functions and exponential (scientific) notation. Note: cell phone calculators can be used in lab (at your own risk) but are not allowed for tests and quizzes

Schedule

Lecture	M-Th 7:30 – 9:35 F 7:30 – 8:30
Exams	F 8:30 – 9:30
Problem session/lab prep	M-Th 9:45-10:45
Lab	M-Th 10:55-12:55

Week of:	Lecture:	Lab:	
May 14	Ch. 1: Measurement, matter Ch. 2: Atoms, molecules, ions Ch. 3: Stoichiometry	Check in; Expt. 1, part II: density Expt. 2: Hydrates (2 days) Expt. 6: Identification of common chemicals	May 15: last day to drop
May 21	Ch. 4: Aqueous solutions Ch. 10 topic: molarity Ch. 5: Gases	Expt. 6 Expt. 7: Titration Expt. 8: Gravimetric & volumetric (2 days)	
May 29	Ch. 6: Electronic structure and periodic table Ch. 7: Bonding	Expt. 10: Gas constant Expt 12 (2 days)	Monday holiday May 30: last day to withdraw
June 4	Ch. 8: Thermochemistry Ch. 9: Liquids and solids Ch. 10: Solutions	Expt. 6 Expt. 11 lab final	June 8: ACS final

Grading

Hour exam	35%	4 hour exams
Recitation	20%	Problem sets
Final exam	20%	June 8 at 7:30
Laboratory	25%	Reports, prelabs, lab notebook

Grades are not curved. There is no extra credit. Letter grade cutoffs:

A 93%, A- 90%, B+ 87%, B 83%, B- 80%, C+ 77%, C 73%, C- 70%, D+ 67%, D 63% D- 60%

Add/Drop/Withdraw

Deadlines: drop (100% refund, no record on transcript) 5/15/12. Withdraw (no refund, grade of W on transcript) 5/30/12. Contact the Registrar's Office at 717-872-3035 or via email at registrar@millersville.edu for any questions. Drop/add will be done entirely online through MAX. See p. 44 of the registration guide http://www.millersville.edu/registrar/scheduleandregistration/files/registration_guide.pdf for details.

Absence Policy

It is University policy that absences are excused for a) personal illness, b) death or critical illness in the family, c) participation in a university-sponsored activity, d) jury duty, e) military duties, or f) religious holidays, if acceptable written documentation of the reason is provided. However, summer classes are so condensed that it will be very difficult to recover from even one day's absence.

For lack of time, labs cannot be made up in summer sessions.

Academic Accommodations

Any student who has been approved for special academic accommodations through the Office of Learning Services should discuss this with the instructor during the first week of classes. The chemistry department cannot accommodate extra time/distraction-free testing. Students wishing to receive these services must complete all Learning Services requirements and take tests in Lyle Hall. If this is not done, the student will have to take the test with the class and will not be given extra time.

Office Hours, Email

Office hours will be arranged in the first meeting. In addition, I will answer email questions about the material 7 days a week. I won't answer email requesting class notes, assignments or grades.

My Job and Yours

It is my job to present the material of this course in a logical and understandable manner, along with some practice problems and labs to help you learn it. It is your job to learn the material. It is not my job to make it easy or entertaining (but I assume you will already be interested).

Reading and problem assignments

Reading and practice problem assignments will be made in lecture. Lectures are planned to provide an outline, not the details, of the chapters and to demonstrate problem solving. Although book problem sets are not graded, working problems is the best way to learn. The problems assigned are chosen as examples of important types of problems, but it may be advisable to work additional end-of-chapter problems.

Objectives

At the conclusion of this course, you should

- be familiar with the structure of the atom and concepts of covalent and ionic bonding, including orbital shapes, hybridization and octet rule.
- be able to interpret and solve stoichiometry, gas law and enthalpy problems and be able to draw Lewis structures and predict molecular structures.
- have the following laboratory skills: ability to work safely, basic operations such as heating, filtration, etc., assessing precision of a measurement, quantitative dilution, titration, qualitative chemical tests.