

Dr. Robert K. Wismer
Robert.Wismer@Millersville.edu

Welcome to Introductory Chemistry I

214 Caputo, 872-3661

CHEM 111, Fall 2011
MWRF 9:30-10:30, T 2-3 & by appt.

Introductory chemistry is intended to teach science majors concepts and techniques needed throughout their careers. Because there is considerable material to be thoroughly mastered, the course has the reputation of being difficult. Yet many students do well: (1) They quickly read the text before lecture so what is discussed is not unfamiliar. (2) They memorize new terms, names, and formulas so they understand new lecture content. (3) They work problems: first with, and then without, consulting the text. (4) They keep careful written notes: on the text, on methods of solving problems, on the lectures, on difficulties they have had and how they solved them. (5) They work on the course every night, refreshing what they have learned much better than lengthy study sessions. (6) They often study with others, to get new ideas and make sure they can explain what they have learned. (7) They ask questions.

Course Materials:

TEXT: *Chemistry: Principles & Rxns*, 7th ed., Masterton, Hurley & Neth, Brookes/Cole, 2012, ISBN 978-1111427108

A CALCULATOR that has log, ln, 10^x (antilog), and e^x functions.

LABORATORY MANUAL: *Experiments in General Chemistry*, Gerald S. Weiss, Thomas G. Greco, Lyman H. Rickard, 9th ed., Prentice Hall Publishing Co., 2007, ISBN 978-0131493919. (Some experiments may be replaced by handouts.)

LABORATORY NOTEBOOK: **MUST** be bound (no ring binders) approximate size 7 x 9.5", quadrille ruled. Carefully follow the instructions for the laboratory notebook on pages 10 AND 11 of the laboratory manual.

LABORATORY SAFETY GOGGLES: Available in the laboratory storeroom (STC-330, ≈\$7) and the bookstore. You **MUST** wear goggles whenever you are in laboratory, even if just visiting.

MOLECULAR MODEL KIT: Available from the ACS student group (STC-330, ≈\$3 or ≈\$13), or commercially (≈\$20).

COMBINATION PADLOCK for your laboratory drawer.

Tests: To encourage you to stay current, there are frequent and numerous (six) half-hour tests scheduled on the dates indicated (T) in the class schedule. The coverage of each test is mainly the material discussed since the last test. There is some material from previous tests because chemistry builds on all material covered in the course.

Nomenclature: Although mastering the new vocabulary of chemical nomenclature is mainly memorization, you will flounder in the course unless you know it thoroughly. For instance, you must know nomenclature to be able to write chemical equations. Each recitation begins with a nomenclature quiz; once you become proficient, these quizzes shift to equation writing, and then redox equation balancing.

Problem Assignments: We learn to solve problems by practice. There will be a problem assignment every lecture day; it is due at the start of the next lecture. Please work your problems on 8.5 x 11" paper, with straight edges. (Both sides of the paper in pencil is O.K., but tear off the nibs.) Problem assignments are marked on whether you attempt each problem and make progress toward a solution; a problem restatement is not an attempt. Each problem assignment is worth five points. Because solutions are available in lecture, late assignments are not accepted. Before the start of each lecture, write on the board the problem that gave you the most difficulty; one of these will be worked in class.

Course Policies: If you have an objection to any aspect of the course, please communicate it (anonymously or otherwise) to the instructor. Because of "academic freedom," neither department chair nor dean can do as much to help.

Plagiarism is submitting someone else's work as your own, including copying lab reports or problem assignments without giving credit. Penalty ranges from zero for the assignment plagiarized to a course grade of "F." That penalty becomes part of your official record. We may penalize both the copier and the one copied from for, since we cannot tell who copied. However, we encourage working together on problems. To protect yourself from the charge of plagiarism, simply write something like: "I received help from Joe Smith on this part," or "I helped Sue Jones on this part."

Absences: YOU ARE RESPONSIBLE for obtaining notes from a classmate for a missed class: excused absence or not. You arrange to make up missed work. Absences may be excused for university-sponsored events, jury or military duty, religious holidays, death or critical illness in immediate family, or personal illness. Support each excuse request with a written statement of the absence's reason, signed by person responsible (coach, faculty member, judge, commander, physician), including their phone number. Death or illness requests presented more than one week after return to classes are **INVALID**. Other excuse requests **MUST** be presented **BEFORE** the absence's date. Personal illness excuse is valid **ONLY** if a physician states you were too ill to come to class. Doctor's appointments & medical tests are **NOT** excused absences. Don't expect to miss more than four classes for any reason and still pass the course. (In the course are enough extra credit points to make up for an unexcused absence.) Excused points are awarded based on your % on the final.

Course Grading: In order to pass the course, you must perform all experiments, turn in all lab reports, and earn a lab grade of 60% (120 points) or more. You must also earn a lecture grade of 60% (420 points) or more.

Eight (8) experiment reports (none for Expt. 6)	120 points	A	≥90%	≥810 points
Eight (8) prelab quizzes (none for Expt. 0)	40 points	B	≥80%	≥720 points
Identification of Common Chemicals (Expt. 6)	40 points	C	≥70%	≥630 points
Recitation quizzes (10 points each)	120 points	D	≥60%	≥560 points
Six tests (50 points each)	300 points	F	<60%	<560 points
Problem assignments	100 points	minus is _0, _1, _2; plus is _7, _8, _9		
Final examination	180 points			

TENTATIVE LECTURE, TEST, & LABORATORY SCHEDULE

Boldface numbers are dates of the month. The chapter (number and abbreviated title) expected to be covered in lecture is given on the appropriate lecture day. The laboratory experiment (number and abbreviated title) for each week is given in the "Tuesday" space. Each 25-minute, 50-point lecture test is indicated with **T**

Chemistry 111 25 July 2011 version Fall 2011 Tentative Schedule

Monday	Tuesday	Wednesday	Thursday	Friday
29 1.Matter,Measure	30 0.QuickDensity	31 1.MatterMeasure	1	2 2.MolecIon PROP
5 LABOR DAY	6 6.CommonChem	7 2.MolecIon ADD	8	9 2.AtomMolecIon T
12 3.Stoichiometry	13 2.HydrateAnalysis	14 3.Stoichiometry	15	16 3.Stoichiometry
19 3.Stoichiometry	20 2&6CommChem	21 3.Stoichiometry	22	23 3.Stoichiometry
26 4.AqSolnRxns T	27 7.Titration	28 4.AqSolnRxns	29	30 4.AqSolnRxns
3 4.AqSolnRxns	4 8.Grav&Vol	5 5.Gases	6	7 5.Gases
10 FALL BREAK	11 FALL BREAK	12 5.Gases	13	15 5.Gases T
17 5.Gases	18 8.G&V 10.EvalR	19 6.ElectrPeriod	20	21 6.ElectrPeriod
24 6.ElectrPeriod	25 10.EvalR12.Asp.	26 6.ElectrPeriod	27	28 7.CovalentBond
31 7.CovalentBond	1 12.Aspirin	2 7.CovalentBond T	3	4 7.CovalentBond w
7 7.CovalentBond	8 13.MolecModel	9 8.Thermochem	10	11 8.Thermochem
14 8.Thermochem	15 11.Thermochem	16 8.Thermochem	17	18 9.LiquidSolid T
21 9.LiquidSolid	22 11.Thermochem	23 THANKS-	25 GIVING	26 BREAK
28 9.LiquidSolid	29 6.CommonChem	30 9.LiquidSolid	1	2 10.Solutions
5 10.Liq&Solid	6 6.TimedTest	7 10.Solutions T	8	9 10.Solutions
12 10.Solutions	R E S T R U C T U R E D W E E K			16 FINAL 8-10 a.m.