

CHEM 99

Preparation for Chemistry Syllabus-Fall, 2006

Sect 001 Monday, Wednesday 12:40-1:30PM MP308

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<u>Date</u>	<u>Assignment</u>
Aug 21	p9(6,7,10)and Branches of Chem; p13(11,12), pP29(1,2), p33(15c,16c),p35(21)
23	Phys vs chem prop; 65(6-9); 71(Fig3-17) Mixt. and Pure Subst 66-69;69(16) wood
28	Electromag spectra 120: Elect Config 135-139; 139(18a,f,19,21,22) Rbow
30	Electron dot 140-141; 141(25d,26) Per Table 151-158; 158(2) Aquarium
Sept 4	No Class
6	Elect config and per table 159-162; 162(11,13,15)
11	Elements 179-201; 185(4), 196(9,12), 201(20,21) Hand in 1st Paper
13	Cations, anions 211-214; 214(5) Ionic bonds 215-220; 220(18) briquette vs wire
18	Ionic cmpds 221-227; 227(39 and names) Metal Bonds 228-231;231(41) Handouts
20	Covalent cmpds 241-247; 247(8,9) name cov compd inc acids) 248-251;251(29)
25	TEST
27	Electronegativity and polarity 263-267; 267(64-70)
Oct 2	Writing formulas from names, writing names from formulas
4	Reactions and equations 277-283; 283(7,8,13) Hand in 2nd Paper
9	Synthesis combustion and decomp Reactions 284-291; 291(28)
11	Single and double replacement Reactions 284-291; 291 (30, 31)
16	Aqueous reactions 292-299; 299(48, 49)
18	TEST
23	The Mole 309-312; 312(6,10)
25	Mass and the Mole 313-319; 319(15,16)
30	Moles of compounds 320-327; 327(36-41) 1 mole examples
Nov 1	Empirical and molecular formulas 328-337; 337(58-60,62)
6	Hydrates 338-341(67,69) Hand in 3rd Paper
8	Stoichiometry 352-357; 357(4-7)
13	Stoichiometry calcs 360-363; 363(15, 19 find mass of CaCl ₂ from 5.00g HCL)
15	Limiting reactants 364-369; 369(25,26) % yield 370-373; 373(33,34) % O₂ in Air
20	No Class Take Home TEST
22	No Class
27	Solids, liq, gases wrt energy , 404-409 ; 409(27) The gas laws 419-427;427(16)
29	Gas laws 428-433;(37,38) The Ideal Gas Law 434-439;(53,54) Stoic 440-443;(67)
4	Solutions 453-461;(5) Supersat. Sol conc. 462-470; Like dissolves like
6	Organic and Nuclear;

To Pass: Attend class 80% of the time(24 of the 30 classes), Pass the three tests (C or better), Hand in Three 1-2 page papers about chemistry questions you are interested in including site where found. Some exercises or handouts listed above will be corrected by instructor. Tests questions will come from these exercises and handouts. Writing out an exercise or handout assignment not collected is optional.

Set up Home page with references. \

Notes

Do reports

Original Setup: Teach the students how to ask questions from their reading.

Assign sections for them to read and let them ask questions about that section at first then let those who are comfortable with it teach the sections later on. Make a question box(es) for each section so they can write or type the questions anonymously. Questions should pertain to the subject. You can use the questions in the book at the end of the chapters. Could be alphabetical by paragraphs. Keep track so each person is involved. Absences? and other precautions that may make this method fall apart and let them escape participation. Keep expectations at student's level. Have a backup plan. Give examples of questions.

Give seminars (pre announced on syllabus to give them a day off once in a while where I explain about important substances. Like the Muriatic Acid Seminar or They call the acid Muriatic. Mr. Acid and Mrs. Base had a kid and named it Salt.

(give them interesting sounding names that will tend to make the student want to come and increase their curiosity. Basics of alkalinity. Teach compound formation, naming, etc within these areas.

Light and Heavy metal. Oxidation by the numbers.

Or use of different meanings Like now were cooking (measurement and conversions)

Convert (measuring and conversions) or

Aug 25th Wax coated pine cones explain candles.

Sept 1 Rainbow glasses Visible spectrum

Sept 22 Make compound name cards and pass out grid cards for making and naming compounds.

Oct 20 Synthesis combustion and decomposition reactions

Nov 29th Solids, liquids and gases. Plastic box and glass beads on overhead
Frozen water tap

Nov 29 Butane in a baggy

Nov 17 Set up steel wool in graduate and beaker of water to asses % O₂ in air

Dec 6 Sodium Acetate trihydrate