

PHYSICAL CHEMISTRY PLANS

WEEK	DATES	CLASS TOPIC	LAB DATE	EXPERIMENT
1	30	Gas Properties	1-Sep	Math review, units
2	-- 8 10		8-Sep	Procedures, reports
3	13 15 17	Kinetic-Molecular Theory	15-Sep	Cp /Cv ratio for a gas
4	20 22 24	First Law of Thermo	22-Sep	Calculations and presentation of data
5	27	EXAM More thermo	29-Sep	Computer stuff
b	4 6 8	Thermo	6-Oct	Thermo
7	13 15	Free Energy, equilibrium	13-Oct	Thermo
8	18 20 22		20-Oct	Thermo
9	25 27 29	Solutions	27-Oct	Solutions
10	1 3 5	Reaction rates	3-Nov	Rates
11	8 12	EXAM	10-Nov	Rates
12	15 17 19	Collision Theory	17-Nov	Rates
13	22 24 --	Phase Equilibrium	24-Nov	Phase equilibria
14	29 1 3		1-Dec	Phase equilibria
15	6 8 10	Electrolytes in solution	8-Dec	Electrolytes in solution

Final exam ~~will~~ be Monday 13th of December at 10:30 a.m.

Each exam will count 100 points, problems 100 points, and the final 200 points --grand total 500 points. ABSOLUTELY NO MAKEUPS.

Physical chemistry is a demanding course. Leaf through any text, and you will see "wall-to-wall" differentials and integrals, and nary a colored illustration. You may also have observed the bumper stickers: "Honk if you passed P-Chem" and "Phys Chem are two four-letter words." Alas, it is all true! You are very much encouraged to *work together* not only on labs but on the assigned problems as well. This will make it a bit easier, and more interesting.

During the first semester we *will* concentrate on gas behavior, thermodynamics, and kinetics. Problems will be assigned and it will be important to spend plenty of time on them. They can be almost impossibly complicated, especially with regard to UNITS. You will be expected always to watch out for this pitfall.

Next semester we *will* focus on quantum mechanics, electron structure, symmetry, spectroscopy, crystals, diffraction methods, and electrical and magnetic properties. Fewer chapters in the text, but we will need to go more slowly.