ChemSkill Builder Homework Assignments

The following sections must be completed online at the chemskill builder website by day of final exam for full credit. You may do the problems as many times as you like, only the highest grade is saved.

16.2 Rate Law Equations
16.3 Experimental Kinetics
16.4 First Order Rate Problems
16.5 Reaction Mechanisms
16.6 Temperature and Rate
17.1 Equilibrium Law and Kc
17.2 Gas Equilibrium and Kp
17.3 Heterogeneous Equilibria
17.4 Equilibrium Calculations
17.5 Le Chatelier's Principle
18.1 Acid-Base Reactions
18.2 Kw and pH Calculations
18.5 Weak Acids and Bases
19.1 Salt Hydrolysis
19.2 Common Ion Effect
19.3 Buffers
19.5 Titration Curves
20.1 Solubility Product Equation
20.2 Solubility Calculations
20.3 Common Ion Effect
21.2 Entropy Change
21.3 Free Energy Changes
21.4 Spontaneity of Reactions
21.5 Free Energy and Concentration
10.1 Identifying Species in Redox Reactions
10.2 Determining Oxidation Numbers
10.3 Balancing Simple Redox Reactions
10.4 Half Reaction Method
22.1 Using Redox Potentials
22.2 Voltaic Cells
22.3 Electrolytic Cells
22.4 Faraday Law Problems
22.5 Nernst Equation Problem
23.1 Properties of Radiation
23.2 Balancing Nuclear Equations

All sections must be completed by day of final exam.

Laboratory Experiments

Week	Date	Experiment
1	Sept 3	Check-In, Safety Lecture
2	Sept 10	Spectroscopy: Beer's Law
3	Sept 17	Ca Analysis by EDTA Titration
4	Sept 24	Lecture
5	Oct 1	Phenolphthalein-NaOH Kinetics
6	Oct 8	Equilibrium Constant Determination
7	Oct 15	Le Chatelier's Principle
8	Oct 22	Group A Cation Analysis
9	Oct 29	Group B Cation Analysis
10	Nov 5	**No Lab: Tuesday classes: Lecture**
11	Nov 12	pH: Its Measurement and Uses
12	Nov 19	Enthalpy of Neutralization
13	Nov 26	Thermodynamics of Borax Dissolution
14	Dec 3	Fe Analysis by Redox Titration
15	Dec 10	Electrochemistry Check-Out

Prestudies are found at the end of the lab experiments. Prestudies are due in lecture the Tuesday before the experiment is to be done in the laboratory. Lab Reports are due the next lab period unless otherwise indicated by the instructor.

General Information

Office: Room 3290
Phone and voice mail: (401) 825-2261
Office Hours: Tues and Thurs: 12:00-01:00PM and Wed 11:00AM-Noon
FAX: (401) 825-2241
EMAIL: rwirkkala@ccri.edu
School Cancellations: (401) 825-2344
Quizzes are given on Wednesdays in the recitation period.
Exams are given during the lecture period.
Prestudies are due Tuesday in lecture the week of the lab.
Laboratory reports are due the next lab period unless otherwise indicated by the instructor.
No make ups are given on quizzes, exams, prestudies, or labs. Any items missed count as a drop.
Necessary Items:
Scientific calculator (with exponential and log functions).
Several No. 2 pencils for exams.
Knowledge of proper graphing techniques or computer graphing programs.

Grading Scheme:

	Maximum Points
a. Best 10/11 Quizzes..... ……..	100 Points
b. Best 2/3 Exams.....…….....….	200 Points
c. Best 11/12 Prestudies..…...….....	110 Points
d. Best 11/12 Lab Reports...……..	220 Points
e. ChemSkill…….....……..….	100 Points
f. Comprehensive Final Exam……	200 Points
Total Maximum Points.....…….....	930 Points

The lowest quiz, exam, prestudy, and lab report are dropped.

Percent of maximum total points:	Grade:
90% -- 100%	A
80% -- 89%	B
70% -- 79%	C
60% -- 69%	D