

Tentative Lecture and Lab Schedule – Fall 2017

Week	Date	Text	Lecture Topic	Laboratory Exercises
1	8/21	Ch 1, 2	Introduction; Scientific Method; Scientific Notation; Significant Figures	Safety; Check into lockers; Introduction to Lab
	8/23	Ch 2	Introduction to Unit Conversion/Dimensional Analysis; SI Units	
2	8/28	Ch 2	Unit conversion of Area & Volume; Density	Exp 1: Measurements – Part 1: Length, Volume, and Temperature
	8/30	Ch 3	States of Matter; Matter Classification; Physical & Chemical Properties/Changes; Conservation of Mass	
3	9/4		HOLIDAY	Exp 2: Measurements - Part 2: Mass, Time, Area & Volume
	9/6	Ch 3, 4	Energy; Temperature; Specific Heat; Atomic Theory & Discovery of the Atom	
4	9/11	Ch 4, 9	Ions; Isotopes and Average Atomic Mass; Basic Concepts of Quantum Mechanics	Exp 3: Density and the Separation of Mixtures
	9/13		Exam 1: Chapters 1-4	
5	9/18	Ch 9	EM Spectrum; Electronic Structure and Configuration	Exp 4: Atomic Properties
	9/20	Ch 9 & 10	Periodic Trends; Ionic and Covalent Bonding; Lewis Structures	
6	9/25	Ch 10	Resonance; Shapes of Molecules; Molecular Dipole/Polarity	Exp 5: Lewis Structures and the Shapes of Molecules
	9/27	Ch 5	Chemical Formulas; Nomenclature of Molecular Compounds and Type (I) Ionic Compounds	
7	10/2	Ch 5	More Nomenclature: Type (II) Ionic Compounds, Oxyanions, Acids	Nomenclature Workshop – Dry Lab
	10/4	Ch 6	Formula Mass; Introduction to the Mole; Formulas as Conversion Factors	
8	10/9	Ch 6	Percent Composition; Empirical & Molecular Formulas	Exp 6: Water in Hydrates Crucible Required!
	10/11		Exam 2: Chapters 5, 6, 9, & 10	
9	10/16	Ch 7	Introduction to Chemical Equations; Balancing	Exp 7: Percent Oxygen in Potassium Chlorate Crucible Required!
	10/18	Ch 7	Solubility Rules; Precipitation Reactions; Electrolytes	
10	10/23	Ch 7	Complete Ionic and Net Ionic Equations; Acid-Base and Gas Evolution Reactions	Exp 8: Double Displacement Reactions
	10/25	Ch 7	Redox Reactions & Combustion; Classification of Reactions	
11	10/30	Ch 7, 8	More on Reactions; Introduction to Stoichiometry	Exp 9: Identification of Common Ions
	11/1	Ch 8	Stoichiometry; Mole-to-Mole, Mass-to-Mole, and Mass-to-Mass Calculations	
12	11/6	Ch 8	Additional Calculation Practice	Exp 10: Preparation and Properties of Oxygen
	11/8	Ch 13	Limiting Reagents, Enthalpy of Reactions	
13	11/13	Ch 13	Concentration: Mass Percent and Molarity; Solution Stoichiometry; Ion Concentrations	Exp 11: Introduction to Acid-Base Titration
	11/15	Ch 13	Dilution; Characterizing Acids and Bases; Titration (Ch.14)	
14	11/20	Ch 11	Gases: Pressure; Kinetic Molecular Theory; Gas Laws	Exp 13: Calorimetry and Specific Heat
	11/22	Ch 11	Exam 3: Chapters 7, 8, & 13 (13.1-13.8 only)	
15	11/27	Ch 14	Ideal Gases; Stoichiometry of Reactions Involving Gases; Introduction to Solutions; Solubility and Saturation	Checkout of Lab
	11/29	Ch 14, 12	pH and pOH; Dispersion Forces; Dipole-Dipole Forces; Hydrogen Bonding; Intermolecular Forces; Types of Solids	
16	12/6		Final Exam (4:45pm – 6:45pm)	