

Chemistry (*Distant Learning*) Unit 8 Outline: Acids and Bases

Must Do Underlined HW Questions

*Green Fonts - *Asynchronous*

*Blue Fonts - **Optional Video Lessons*

Chapter 15: Acids and Bases (Homework and Notebook Check = 30%, Lab = 35%. Unit Test = 35%)

Wk/Class	Topics	Suggested Reading	✓	Assignments	✓
May 10 / Day 1	Physical and Chemical properties of acids and bases, Nomenclature of Acids and Bases, Arrhenius Acids and Bases, Brønsted-Lowry Acids and Bases, Hydronium Ion (H_3O^+), hydroxide ion (OH^-), Conjugate Acids and Bases, Strong and Weak Acids, Acid and Base Relative Strengths, Monoprotic, Diprotic and Polyprotic Acids, Amphoteric Substances, Oxo and Organic Acids	15.1 What are Acids and Bases (pg. 530 – 538) <i>[15-1 Video Lesson – 45:59]</i>		pg. 538 #1 to 13	
May 17 / Day 1	Autoionization of Water, $K_w = [\text{H}_3\text{O}^+][\text{OH}^-]$, Acidic, Basic and Neutral Solutions, pH Scale and Calculations ($\text{pH} = -\log [\text{H}_3\text{O}^+]$ and $[\text{H}_3\text{O}^+] = 10^{-\text{pH}}$), pOH Scale and Calculations ($\text{pOH} = -\log [\text{OH}^-]$ and $[\text{OH}^-] = 10^{-\text{pOH}}$), Relationship between pH and pOH ($\text{pH} + \text{pOH} = 14$), Calculating $[\text{H}_3\text{O}^+]$, $[\text{OH}^-]$, pH and pOH with Strong Acids and Strong Bases, Indicators	15.2 Acidity, Basicity, and pH (pg. 539 – 547) <i>[15-2 Video Lesson – 52:25]</i>		pg. 541 #1 to 5 (Practice); pg. 544 #1 to 4 (Practice); pg. 545 #1 to 4 (Practice); pg. 547 #1 to 15	
May 17 / Day 2	Neutralization Reactions, Acid and Base Salts, Stoichiometry of Neutralization Reactions, Acid-Base Titration, Endpoint, Equivalence Point, Choosing Indicator for Titrations, pH Curve (between Strong Acids and Strong Base Titrations), Chemistry of Acid Rain, Effects of Acid Deposition and Acid Rain	15.3 Neutralization & Titrations (pg. 548 – 56) <i>[15-3 Video Lesson – 43:31]</i>		pg. 556 #1 to 4 (Practice); pg. 556 #1 to 12	
May 24 / Day 1	Lab #8: Acid and Base Titration (C Block: May 25, Tuesday) (F & G Blocks: May 26, Wednesday)	Lab #8 Handout [Lab #8 Videos – 64:50]		Lab #8 Report: (C Block: June 3, Thurs by Noon) (F & G Blocks: June 4, Fri by Noon)	
	Unit 8 Test (C Block: June 3, Thursday) (F & G Blocks: May 31, Monday)	Unit 8 Practice Test		(Optional) Chapter 15 Review: pg. 566–570 #16 to 18, 20 to 22, 24 to 26, 29 to 32, 41 to 75 (odd), 76 to 79, 81 and 97a	