



CHEMISTRY

2024-25 Winter Program
@Bluekey Prep Apgujeong

INSTRUCTOR

민현진 (Korea University)

COURSE DESCRIPTION

- Session 1
12/16(월) - 12/21(토) & 12/23(월) - 12/27(금), 총 10회
 - Session 2
12/23(월) - 1/4(토), 총 10회
- ** 12/25, 1/1 휴강

CLASS PLAN

- Day 1 Energy
 - The Nature of Energy
 - Temperature and Heat
 - Exothermic and Endothermic Processes
 - Thermodynamics
- Day 2 Energy
 - Measuring Energy Changes
 - Thermochemistry (Enthalpy)
 - Hess's Law
 - Energy as a Driving Force
- Day 3 Solutions
 - Solubility
 - Solutions Composition
 - Solutions Composition : Mass Percent
 - Solutions Composition : Molarity
- Day 4 Solutions
 - Dilution
 - Stoichiometry of Solution Reactions
 - Neutralization Reactions



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- Day 5 Equilibrium
 - How Chemical Reactions Occur
 - Conditions That Affect Reactions Rates
 - The Equilibrium Condition
 - Chemical Equilibrium : A Dynamic Condition
- Day 6 Equilibrium
 - The Equilibrium Constant
 - Heterogeneous Equilibria
 - Le Chatelier's Principle
 - Solubility Equilibria
- Day 7 Acids and Bases
 - Acids and bases
 - Acid Strength
 - Water as an Acid and a Base
- Day 8 Acids and Bases
 - The pH Scale
 - Calculating the pH of Strong Acid Solutions
 - Buffered Solutions
- Day 9 Oxidation
 - Reduction Reactions and Electrochemistry
 - Oxidation-Reduction Reactions
 - Oxidation States
 - Balancing Oxidation-Reduction Reaction
 - Electrochemistry
- Day 10 Oxidation
 - Reduction Reactions and Electrochemistry
 - Batteries
 - Corrosion
 - Electrolysis