

Honour Chemistry Unit 5 Outline: Organic Chemistry

Chapter 25: Hydrocarbon Compounds

Classes	Topics	Suggested Reading	Assignments
1	Hydrocarbons, Alkanes, Straight-Chain Alkanes, Branched Alkanes (Alkyl Group), Molecular Formula, Complete and Condensed Structural Formulas, Nomenclature and Properties of Alkanes, Alkenes, Unsaturated Compounds, Saturated Compounds, Alkynes, Nomenclature and Properties of Alkenes and Alkynes,	25.1: Hydrocarbons (pg. 743 to 751) 25.2: Unsaturated Hydrocarbons (pg. 752 to 753)	pg. 747 #1, 2; pg. 749 #3; pg. 750 #4, 5; pg. 751 #6 to 8, 10 pg. 753 #11 to 13
2	Structural Isomers, Geometric Isomers (<i>cis-trans</i> configurations), Cyclic Hydrocarbons, Aliphatic and Aromatic Hydrocarbons, Benzene Rings and Benzene as Substituent (Phenyl), Natural Gas, Petroleum, Coal, Fractional Distillation, Cracking, Reformation, Petroleum Refining, Complete and Incomplete Combustions	25.3: Isomerism (pg. 754 to 755) 25.4: Hydrocarbon Rings (pg. 759 to 761) 25.5: Hydrocarbons from the Earth (pg. 762 to 765)	pg. 757 #16, 18 pg. 761 #20 to 23 pg. 765 #24 to 27
3	Chapter 25 Quiz (February 6, Wednesday)		Chapter 25 Review pg. 768–769 #28 to 40, 43 to 45, 49, 50, 53, 55

Chapter 26: Functional Groups and Organic Reactions

Classes	Topics	Suggested Reading	Assignments
1	Functional Group, Halocarbons, Alkyl Halides, Aryl Halides, Nomenclature and Properties of Halocarbons, Substitution Reactions and Addition Reactions to form Halocarbons Alcohols, Primary, Secondary and Tertiary Alcohols, Properties and Nomenclature of Alcohols, Substitution and Addition Reactions (Hydration) to form Alcohol, Addition Reactions to form Alkanes (Hydrogenation), Ethers and their Nomenclature	26.1: Introduction to Functional Groups (pg. 773 to 776, 781 to 782) 26.2: Alcohols and Ethers (pg. 777, 778 to 784)	pg. 777 #1 to 4, 6; pg. 784 #12a, b. pg. 784 #7 to 11, 12c; pg. 777 #5
2	Carbonyl Group, Aldehydes and Ketones, Nomenclature of Aldehydes and Ketones, Carboxylic Acid, Esters, Dehydrogenation Reactions (Elimination) of Alkanes and Alcohols, Esterification (Ester Condensation), Polymer, Monomers, Dimers Addition Polymerization, Esterification (Condensation) Polymerization, Different kinds of Polymers (Polyethylene, Polyvinyl Chloride, Polyester)	26.3: Carbonyl Compounds (pg. 785 to 791) 26.4: Polymerization (pg. 795 to 800)	pg. 794 #13 to 16 pg. 800 #17 to 19
3	Unit 5 Test (February 14, Thursday)		Chapter 26 Review pg. 804–805 #20 to 38, 41 to 43, 48 to 50 Unit 5 Review pg. 771 #1 to 5, 7 to 19, 21; pg. 807 #1 to 19 Unit 5 Practice Test

(*Since there is no lab in this unit, the unit mark will consist of 25% Homework, 5% Notebook, 10% Quiz and 60% Unit Test.)