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| **logoUniversity of Management & Technology**School of Science**Department of Chemistry** |
| BS CH 206 -Organic Chemistry-1Credit Hours 4 |

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| **Week** | **Lecture**  | **Course Outlines** |
| 1 | 12 | Covalent Bond, Atomic and Molecular orbitals Hybridization and Shape of organic molecules |
| 2 | 12 | Inductive effect, Dipole momentDelocalized bonding, Resonance Theory |
| 3 | 12 | Resonance effect, Steric inhibition of resonanceHyperconjugation, Tautomerism |
| 4 | 12 | Alkanes: Nomenclature, Methods of preparationsAlkanes: Physical & Chemical properties |
| 5 | 12 | Cycloalkanes: Nomenclature, Methods of preparationsCycloalkanes: Physical & Chemical properties |
| 6 | 12 | Alkenes: Nomenclature, Methods of preparationsAlkenes: Physical & Chemical properties |
| 7 | 12 | Alkynes: Nomenclature, Methods of preparationsAlkynes: Physical & Chemical properties |
| 8 | 12 | Stereochemistry: Conformational isomerism in alkanesStereochemistry: Conformational isomerism in cycloalkanes |
| 9 | 12 | Stereochemistry: Optical isomerism, Chirality, racemic mixtureStereochemistry: Geometrical isomerism in alkenes  |
| 10 | 12 | Alkyl halides: Nomenclature, Methods of preparationsAlkyl halides: Physical & Chemical properties |
| 11 | 12 | Mechanism & Reactivity of Aliphatic Nucleophilic Substitution reactions Mechanism &Reactivity of Elimination reactions  |
| 12 | 12 | Orientation of double bondPreparation of Grignard Reagent |
| 13 | 12 | Reactions of Grignard ReagentStructure and Spectroscopy of Grignard Reagent |
| 14 | 12 | Structure of benzene & AromaticityAromatic compounds: Nomenclature, Methods of preparations |
| 15 | 12 | Aromatic compounds: Physical & Chemical propertiesPolycyclic aromatic hydrocarbons |