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# Organic Chemistry

## Subject Information

by

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# Synopsis

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In this course we will be introduced to the basic fundamental principles of organic chemistry. Structure, properties and stereochemistry of organic molecules and basic organic reaction to prepare common functional groups will be studied.

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# Course Outcomes

- CO1:** Describe characteristics and physical properties of organic molecules
- CO2:** Classify chemical compounds based on their structures
- CO3:** Recognize the main functional groups in organic chemistry and predict their reactions
- CO4:** Analyze of organic structure backbonds with their functional groups
- CO5:** Cooperate in group to complete the assigned tasks in a given time

# Contents

## Chapters:

1. Chemical bonding and Structure
2. Introduction to Organic Molecules and Functional Groups
3. Alkanes
4. Organic Reaction
5. Alkyl halides and nucleophilic substitution
5. Alkyl halides and elimination reactions (part II)
6. Alcohols, ethers and epoxides
7. Alkenes
8. Alkyne
9. Oxidation and reduction
10. Radical reactions
11. Benzene and aromatic compounds

# References

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2. Saxena, P.B. Organic Biochemistry New Delhi, India: New Delhi Discovery
3. Graham, S. Organic Chemistry 2ed John Wiley & Sons 80-08-00028-7
4. Solomons, T. W. Organic Chemistry John Wiley; Hoboken, NJ, USA
5. Henry, L. Organic chemistry study guide & solution manual Gingrich & Maetland 978-039392458

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