

Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session – (2023-24)

Name of the Teacher/s: Dr. Madhuri Patil, Dr. Manjot Kaur and Dr. Renu

Department: Chemistry

Class: BSc 1 (semester-I)

Subject: Organic Chemistry

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	26-07-2023	14-08-2023	Structure and bonding	Lecture
2	15-08-2023	30-08-2023	Mechanism of organic reactions	Lecture
3	01-09-2023	15-09-2023	Alkanes	Lecture
	16-09-2023	30-09-2023	Cycloalkanes	
4	03-10-2023	22-10-2023	Stereo-chemistry of organic compounds 1	Lecture
5	25-10-2023	Till exam	Stereo-chemistry of organic compounds 2	Lecture
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
17 th Aug, 2023	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
22 nd Sept, 2023	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
21 st Oct, 2023	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				

20 th Nov, 2023	The teachers have completed the scheduled chapters and topics as shown in the lesson plan
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***Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc. Other Methods adopted by the teacher – Please write the specific teaching method

Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Even Semester)
Session – 2023-24

Name of the Teacher: Dr. Madhuri Patil, Dr. Manjot Kaur and Dr. Renu

Department: P.G. Department of Chemistry

Class: B.Sc I

Subject: Organic Chemistry

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	09 -01- 2024	28-01-2024	Unit I Alkenes and Cycloalkenes: Nomenclature of alkenes, methods of formation, mechanisms of dehydration of alcohols and dehydrohalogenation of alkyl halides, regioselectivity in alcohol dehydration. The Saytzeff rule, Hofmann elimination, physical properties and relative stabilities of alkenes. Chemical reactions of alkenes – mechanisms involved in hydrogenation, electrophilic and free radical additions, Markownikoff's rule, hydroboration-oxidation, oxymercuration-reduction. Epoxidation, ozonolysis, hydration, hydroxylation and oxidation with KMnO_4	Lecture method
2	29.01.2024	27.02.2024	Unit I Alkenes and Cycloalkenes: Polymerization of alkenes. Substitution at the allylic and vinylic positions of alkenes. Industrial	Lecture method

			<p>applications of ethylene and propene.</p> <p>Unit II Dienes and Alkynes: Methods of formation, conformation and Chemical reactions of cycloalkenes. Nomenclature and classification of dienes : isolated, conjugated and cumulated dienes. Structure of allenes and butadiene, methods of formation, polymerization. Chemical reactions – 1, 2 and 1,4 addition, Diels-Alder reaction. Nomenclature, structure and bonding in alkynes. Methods of formation. Chemical reactions of alkynes, acidity of alkynes. Mechanism of electrophilic and nucleophilic addition reactions, hydroboration-oxidation, metal-ammonia reductions, oxidation and polymerization.</p>	
3	28.02.2024	23.03.2024	<p>Unit III Arenes and Aromaticity: Nomenclature of benzene derivatives. The aryl group. Aromatic nucleus and side chain. Structure of benzene : molecular formula and Kekule structure. Stability and carbon-carbon bond lengths of benzene, resonance structure, MO picture. Aromaticity: The Huckel Rule, aromatic ions. Aromatic electrophilic substitution – general pattern of the mechanism, role of σ- and π complexes. Mechanism</p>	Lecture method

			of nitration, halogenation, sulphonation, mercuration and Friedel-Crafts reaction. Energy profile diagrams. Activating and deactivating substituents, orientation and ortho/para ratio. Side chain reactions of benzene derivatives. Birch reduction. Methods of formation and chemical reactions of alkyl benzenes, alkynyl benzenes and biphenyl.	
4	24.03.2024	Till exam	Unit IV Alkyl and Aryl Halides: Nomenclature and classes of alkyl halides, methods of formation, chemical reactions. Mechanisms of nucleophilic substitution reactions of alkyl halides, SN ² and SN ¹ reactions with energy profile diagrams. Polyhalogen compounds: chloroform, carbon tetrachloride. Methods of formation of aryl halides, nuclear and side chain reactions. The addition-elimination and the elimination-addition mechanisms of nucleophilic aromatic substitution reactions. Relative reactivities of alkyl halides vs. allyl, vinyl and aryl halides.	Lecture method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
30th Jan, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
24th Feb, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				

28th, March 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans	
19th April, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan

***Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc. Other Methods adopted by the teacher – Please write the specific teaching method