Class: M. Sc. IV Semester LESSON PLAN (Theory): 2024-25 Subject: Chemistry

Course: CHE 525 (Spectroscopy-II), Course: CHE 528 (Organic Synthesis),

Course: CHE 531 (Selected Topics in Organic Chemistry) &

**Course : CHE534 (Drugs and Agrochemicals)** 

Course: CHE534 (Drugs and Agrochemicals)				
DATE	LECTURE	TEACHER'S NAME	CHAPTER	TOPIC
16/01/2025	1	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Alkenes	Geometrical isomerization, cyclic dimerization
16/01/2025	1	Dr. Ram Sahay	CHE-525, Unit-1: Mass Spectrometry	Measurement technique (El, Cl, FD and FAB)
17/01/2025	2	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of alcohols
17/01/2025	1	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of Sulphanilamide, sulphathiazole
18/01/2025	1	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Barton, Bayllis –Hillman reaction
18/01/2025	2	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>1</sup> H-NMR	The spinning nuclei, Chemical shift and its measurement, factors affecting chemical shifts
20/01/2025	2	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Hoffmann-Loffler-Freytag reaction
20/01/2025	2	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of Sulphanilamide, sulphathiazole
21/01/2025	3	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Michael addition reaction
21/01/2025	3	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of sulphathalidine, sulphasuccidine
22/01/2025	3	Mrs. Priyanka Mishra	CHE- 531, Unit-1: Aromaticity	Concept of aromaticity, anti-aromaticity, non-aromaticity
22/01/2025	CT	Dr. Ram Sahay	CT	Class Teaching
23/01/2025	4	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Alkenes	Photo-oxidation reaction
23/01/2025	3	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>1</sup> H-NMR	Anisotropic effect and shielding mechanism
24/01/2025	5	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of thiols 1,3-diols
24/01/2025				
	4	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of sulphaguanidine, sulphapyridine
25/01/2025	4	Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal	CHE-534, Unit-1: Synthetic Drugs A CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Synthesis and applications of sulphaguanidine, sulphapyridine  Mitsonubu reaction
25/01/2025 25/01/2025		-	CHE-528, Unit-1: Selective Named Reactions and Their Applications in	sulphaguanidine, sulphapyridine
	4	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	sulphaguanidine, sulphapyridine  Mitsonubu reaction  Interpretation of protons spin-spin
25/01/2025	4	Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis  CHE-525, Unit-2: <sup>1</sup> H-NMR  CHE-528, Unit-1: Selective Named Reactions and Their Applications in	sulphaguanidine, sulphapyridine  Mitsonubu reaction  Interpretation of protons spin-spin coupling, coupling constant
25/01/2025 27/01/2025 27/01/2025 28/01/2025	4 5	Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis  CHE-525, Unit-2: <sup>1</sup> H-NMR  CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Sulphaguanidine, sulphapyridine  Mitsonubu reaction  Interpretation of protons spin-spin coupling, coupling constant  Nazarov, Mannich reaction  Synthesis and applications of sulphaguanidine, sulphapyridine  Julia & Peterson olefination reaction
25/01/2025 27/01/2025 27/01/2025	4 5 5	Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis  CHE-525, Unit-2: <sup>1</sup> H-NMR  CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis  CHE-534, Unit-1: Synthetic Drugs A  CHE-528, Unit-1: Selective Named Reactions and Their Applications in	Sulphaguanidine, sulphapyridine  Mitsonubu reaction  Interpretation of protons spin-spin coupling, coupling constant  Nazarov, Mannich reaction  Synthesis and applications of sulphaguanidine, sulphapyridine

29/01/2025	ME	Dr. Ram Sahay	ME	Monthly Evaluation
30/01/2025	7	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Alkenes	Reactions of 1,4 and 1,5- dienes (di-pi methane and related rearrangements)
30/01/2025	5	Dr. Ram Sahay	CHE-525, Unit-1: Mass Spectrometry	Measurement technique (El, Cl, FD and FAB)
31/01/2025	8	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of thiols 1,3-diols
31/01/2025	7	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of chloroquine, santoquine
01/02/2025	7	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Julia & Peterson olefination reaction
01/02/2025	6	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>1</sup> H-NMR	Simple, virtual and complex coupling, Chemical and magnetic equivalence
04/02/2025	8	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Robinson annulations
04/02/2025	8	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of Pamaquine, Pentaquine
05/02/2025	9	Mrs. Priyanka Mishra	CHE- 531, Unit-1: Aromaticity	Non-aromaticity and homoaromaticity
05/02/2025	7	Dr. Ram Sahay	CHE-525, Unit-1: Mass Spectrometry	Various class of organic molecules, Mc Lafferty re-arrangement
06/02/2025	10	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Alkenes	Reactions of 1,4 and 1,5- dienes (di-pi methane and related rearrangements)
06/02/2025	CT	Mrs. Namrata Mishra	CT	Class Teaching
07/02/2025	11	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of 1,3-diols
07/02/2025	9	Mrs. Priyanka Mishra	CHE-534, Unit-1: Synthetic Drugs A	Synthesis and applications of Pamaquine, Pentaquine
08/02/2025	9	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Reformatsky reaction
08/02/2025	8	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>1</sup> H-NMR	NMR studies of other nuclei e.g., <sup>19</sup> F and <sup>31</sup> P
10/02/2025	10	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Shapiro reaction
10/02/2025	10	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Introduction and applications of Nitrogen mustards
11/02/2025	11	Dr. Shiv Kumar Vernwal	CHE-528, Unit-1: Selective Named Reactions and Their Applications in Organic Synthesis	Stork-enamine reaction
11/02/2025	11	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Introduction and applications of Nitrogen mustards
13/02/2025	12	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Alkenes	Reactions of 1,4 and 1,5- dienes (di-pi methane and related rearrangements)
13/02/2025	9	Dr. Ram Sahay	CHE-525, Unit-1: Mass Spectrometry	Retro-Diels-Alder Fragmentation, nitrogen rule
14/02/2025	13	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of amines
14/02/2025	CT	Mrs. Priyanka Mishra	CT	Class Teaching
15/02/2025	12	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms SeO2
15/02/2025	10	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>1</sup> H-NMR	Application in structural determination of simple organic and inorganic molecules
17/02/2025	13	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: Jones reagent
17/02/2025	12	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Introduction and applications antimetabolites in cancer chemotherapy

18/02/2025	14	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: PCC
18/02/2025	13	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Introduction and applications antimetabolites in cancer chemotherapy
19/02/2025	14	Mrs. Priyanka Mishra	CHE- 531, Unit-1: Aromaticity	Alternant and non- alternant systems, Aromaticityin tropolone.
19/02/2025	11	Dr. Ram Sahay	CHE-525, Unit-1: Mass Spectrometry	Determination of molecular composition of organic compounds from mass spectra data
20/02/2025	15	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Aromatic compounds	Skeletal isomerization
20/02/2025	12	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>1</sup> H-NMR	Application in structural determination of simple organic and inorganic molecules
21/02/2025	16	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of amines
21/02/2025	ME	Mrs. Priyanka Mishra	ME	Monthly Evaluation
22/02/2025	15	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: PDC
22/02/2025	13	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>13</sup> C-NMR	General introduction, peak assignments, chemical shift, <sup>13</sup> C-1H coupling
24/02/2025	16	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: Swern oxidation and iodobenzenediaetate
24/02/2025	14	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Synthesis and applications of promazine, Chloropromazine
25/02/2025	17	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: Swern oxidation and iodobenzenediacetate
25/02/2025	15	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Synthesis and applications of promazine, Chloropromazine
27/02/2025	17	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Aromatic compounds	Isomerization of disubstituted benzenes
27/02/2025	14	Dr. Ram Sahay	CHE-525, Unit-1: Mass Spectrometry	Determination of molecular composition of organic compounds from mass spectra data
28/02/2025	18	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of carbonyls
28/02/2025	16	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Synthesis and applications of Chloropromazine, mepazine
01/03/2025	18	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: Swern oxidation and iodobenzenediacetate
01/03/2025	CT	Mrs. Namrata Mishra	CT	Class Teaching
03/03/2025	19	Dr. Shiv Kumar Vernwal	CHE-528, Unit-2: Oxidation	Applications and mechanisms: Swern oxidation and iodobenzenediacetate
03/03/2025	17	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Synthesis and applications of Para Aminosalicylic Acid (PAS)
04/03/2025	20	Dr. Shiv Kumar Vernwal	CHE-528, Unit-3: Reduction	Scope,Mechanism and stereochemistry of reduction with NaBH4
04/03/2025	18	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Synthesis and applications of Para Aminosalicylic Acid (PAS)
05/03/2025	19	Mrs. Priyanka Mishra	CHE- 531, Unit-1: Aromaticity	Aromaticity in azulene
05/03/2025	14	Dr. Ram Sahay	CHE-525, Unit-4: Electron Spin Resonance Spectroscopy	Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to organic free radical
06/03/2025	20	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Aromatic compounds	Isomerization of disubstituted benzenes
06/03/2025	15	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>13</sup> C-NMR	Off-resonance Decoupling

07/03/2025	21	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and	Principle of protection and deprotection
07/03/2025	19	Mrs. Priyanka Mishra	Deprotection of Groups  CHE-534, Unit-2: Synthetic Drugs B	of carbonyls Synthesis and applications of
08/03/2025	21	Dr. Shiv Kumar Vernwal	, ,	Thiosemicarbazones and hydrazides  Scope, Mechanism and stereochemistry
00/00/00	OPP.		CHE-528, Unit-3: Reduction	of reduction with NaBH <sub>4</sub>
08/03/2025	CT	Mrs. Namrata Mishra	CT	Class Teaching
10/03/2025	22	Dr. Shiv Kumar Vernwal	CHE-528, Unit-3: Reduction	Scope, Mechanism and stereochemistry of reduction with NaBH <sub>4</sub>
10/03/2025	20	Mrs. Priyanka Mishra	CHE-534, Unit-2: Synthetic Drugs B	Synthesis and applications of Thiosemicarbazones and hydrazides
11/03/2025	23	Dr. Shiv Kumar Vernwal	CHE-528, Unit-3: Reduction	Scope,Mechanism and stereochemistry of reduction with LAH
11/03/2025	21	Mrs. Priyanka Mishra	CHE-534, Unit-3: Antibiotics	Synthesis of penicillin-G
17/03/2025	24	Dr. Shiv Kumar Vernwal	CHE-528, Unit-3: Reduction	Scope,Mechanism and stereochemistry of reduction with DIBAL-H
17/03/2025	22	Mrs. Priyanka Mishra	CHE-534, Unit-3: Antibiotics	Synthesis of penicillin-G and penicillin-V
18/03/2025	25	Dr. Shiv Kumar Vernwal	CHE-528, Unit-3: Reduction	Scope,Mechanism and stereochemistry of reduction with DIBALH
18/03/2025	23	Mrs. Priyanka Mishra	CHE-534, Unit-3: Antibiotics	Synthesis of penicillin-V and chloramphenicol
19/03/2025	22	Mrs. Priyanka Mishra	CHE- 531, Unit-1: Aromaticity	Aromaticity in annulenes
19/03/2025	16	Dr. Ram Sahay	CHE-525, Unit-4: Electron Spin Resonance Spectroscopy	Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to Methyl free radical
20/03/2025	23	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of	Photo-Fries rearrangement
20/03/2023			Aromatic compounds	
20/03/2025	ME	Dr. Ram Sahay		Monthly Evaluation
	<b>ME</b> 24		Aromatic compounds	_
20/03/2025		Dr. Ram Sahay	Aromatic compounds  ME  CHE-531, Unit-2: Protection and	Monthly Evaluation  Principle of protection and deprotection
20/03/2025	24	Dr. Ram Sahay Mrs. Namrata Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and
20/03/2025 21/03/2025 21/03/2025	24	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry
20/03/2025 21/03/2025 21/03/2025 22/03/2025	24 24 26	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025	24 24 26 17	Dr. Ram Sahay Mrs. Namrata Mishra Mrs. Priyanka Mishra Dr. Shiv Kumar Vernwal Mrs. Namrata Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025 01/04/2025	24 24 26 17 27	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-528, Unit-3: Reduction	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry of reduction with Birch reduction  A brief reference to natural insecticides, tobacco alkaloid  Aromaticity in ferrocene
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025 01/04/2025 01/04/2025	24 24 26 17 27 25	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-528, Unit-3: Reduction  CHE-534, Unit-4: Insecticides	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry of reduction with Birch reduction  A brief reference to natural insecticides, tobacco alkaloid
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025 01/04/2025 01/04/2025	24 24 26 17 27 25 25	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra  Mrs. Priyanka Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-528, Unit-3: Reduction  CHE-534, Unit-4: Insecticides  CHE-531, Unit-1: Aromaticity  CHE-525, Unit-4: Electron Spin	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry of reduction with Birch reduction  A brief reference to natural insecticides, tobacco alkaloid  Aromaticity in ferrocene  Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to organic
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025 01/04/2025 01/04/2025 02/04/2025 02/04/2025 03/04/2025	24 24 26 17 27 25 25 18	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra  Mrs. Priyanka Mishra  Dr. Ram Sahay  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-528, Unit-3: Reduction  CHE-534, Unit-4: Insecticides  CHE-531, Unit-1: Aromaticity  CHE-525, Unit-4: Electron Spin Resonance Spectroscopy  CHE-531, Unit-5: Photochemistry of	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry of reduction with Birch reduction  A brief reference to natural insecticides, tobacco alkaloid  Aromaticity in ferrocene  Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to organic Naphthalene free radical  Photo-Fries rearrangement  NOE and DEPT, 2D NMR, Application to simple organic and inorganic molecules
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025 01/04/2025 01/04/2025 02/04/2025 02/04/2025	24 24 26 17 27 25 25 18	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra  Mrs. Priyanka Mishra  Dr. Ram Sahay  Dr. Shiv Kumar Vernwal	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-528, Unit-3: Reduction  CHE-534, Unit-4: Insecticides  CHE-531, Unit-1: Aromaticity  CHE-525, Unit-4: Electron Spin Resonance Spectroscopy  CHE-531, Unit-5: Photochemistry of Aromatic compounds	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry of reduction with Birch reduction  A brief reference to natural insecticides, tobacco alkaloid  Aromaticity in ferrocene  Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to organic Naphthalene free radical  Photo-Fries rearrangement  NOE and DEPT, 2D NMR, Application to simple organic and inorganic
20/03/2025 21/03/2025 21/03/2025 22/03/2025 22/03/2025 01/04/2025 01/04/2025 02/04/2025 02/04/2025 03/04/2025	24 24 26 17 27 25 25 18	Dr. Ram Sahay  Mrs. Namrata Mishra  Mrs. Priyanka Mishra  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra  Dr. Shiv Kumar Vernwal  Mrs. Priyanka Mishra  Mrs. Priyanka Mishra  Dr. Ram Sahay  Dr. Shiv Kumar Vernwal  Mrs. Namrata Mishra	Aromatic compounds  ME  CHE-531, Unit-2: Protection and Deprotection of Groups  CHE-534, Unit-3: Antibiotics  CHE-528, Unit-3: Reduction  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-528, Unit-3: Reduction  CHE-534, Unit-4: Insecticides  CHE-531, Unit-1: Aromaticity  CHE-525, Unit-4: Electron Spin Resonance Spectroscopy  CHE-531, Unit-5: Photochemistry of Aromatic compounds  CHE-525, Unit-2: <sup>13</sup> C-NMR  CHE-531, Unit-2: Protection and	Monthly Evaluation  Principle of protection and deprotection of carboxyl groups in organic synthesis  Synthesis of penicillin-V and chloramphenicol  Scope, Mechanism and stereochemistry of reduction with Birch reduction  NOE and DEPT, 2D NMR  Scope, Mechanism and stereochemistry of reduction with Birch reduction  A brief reference to natural insecticides, tobacco alkaloid  Aromaticity in ferrocene  Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to organic Naphthalene free radical  Photo-Fries rearrangement  NOE and DEPT, 2D NMR, Application to simple organic and inorganic molecules  Principle of protection and deprotection

05/04/2025	20	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>13</sup> C-NMR	NOE and DEPT, 2D NMR, Application to simple organic and inorganic molecules
07/04/2025	29	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of DCC
07/04/2025	26	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	A brief reference to natural insecticides, tobacco alkaloid
08/04/2025	30	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of DDQ
08/04/2025	27	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Pyrothrins and rotenoids
09/04/2025	28	Mrs. Priyanka Mishra	CHE- 531, Unit-1: Aromaticity	Aromaticity in fullerene
09/04/2025	21	Dr. Ram Sahay	CHE-525, Unit-4: Electron Spin Resonance Spectroscopy	Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to Benzene free radical
11/04/2025	29	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of carboxyl groups in organic synthesis
11/04/2025	28	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Pyrothrins and rotenoids
12/04/2025	31	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of LDA
12/04/2025	CT	Mrs. Namrata Mishra	CT	Class Teaching
15/04/2025	32	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of Diazomethane
15/04/2025	29	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Organophosphorus insecticides, OMPA
16/04/2025	30	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of Pyrazole
16/04/2025	22	Dr. Ram Sahay	CHE-525, Unit-4: Electron Spin Resonance Spectroscopy	Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to Benzene free radical
17/04/2025	31	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Carbonyl Compounds	Reduction, inter and intramolecular addition (Patterno-Buchi)
17/04/2025	23	Dr. Ram Sahay	CHE-525, Unit-4: Electron Spin Resonance Spectroscopy	Basic principle, factor affecting value, isotropic and anisotropic hyperfine coupling constant, Application to CID NP
19/04/2025	33	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of Bu3SnH
19/04/2025	24	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>13</sup> C-NMR	NOE and DEPT, 2D NMR, Application to simple organic and inorganic molecules
21/04/2025	34	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of 1,3-dithiane
21/04/2025	30	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Organophosphorus insecticides, OMPA
22/04/2025	35	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of Sulphur and phosphorous Ylides
22/04/2025	CT	Mrs. Priyanka Mishra	CT	Class Teaching
23/04/2025	32	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of imidazole
23/04/2025	25	Dr. Ram Sahay	CHE-525, Unit-5: Mossbauer Spectroscopy	Theory, Instrumentation, Applications of isomer shift
24/04/2025	33	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Carbonyl Compounds	Fragmentation ( Norrish-I and Norrish-II)
24/04/2025	26	Mrs. Namrata Mishra	CHE-525, Unit-2: <sup>13</sup> C-NMR	NOE and DEPT, 2D NMR, Application to simple organic and inorganic molecules

25/04/2025	34	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of carboxyl groups in organic synthesis
25/04/2025	31	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Organophosphorus insecticides, OMPA
26/04/2025	36	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of Sulphur and phosphorous Ylides
26/04/2025	27	Mrs. Namrata Mishra	CHE-525,Unit-2: <sup>13</sup> C-NMR	NOE and DEPT, 2D NMR, Application to simple organic and inorganic molecules
28/04/2025	37	Dr. Shiv Kumar Vernwal	CHE-528, Unit-4: Reagents	Preparation and uses of Sulphur and phosphorous Ylides
28/04/2025	32	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Parathion, malathion
29/04/2025	38	Mrs. Namrata Mishra	CHE-528, Unit-5: Pd (0) and Pd (II) Complex in Organic Synthesis	Pd(0) and Pd(II) complex in organic synthesis: Heck reaction
29/04/2025	ME	Mrs. Priyanka Mishra	ME	Monthly Evaluation
30/04/2025	35	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of Thiazole
30/04/2025	28	Dr. Ram Sahay	CHE-525, Unit-5: Mossbauer Spectroscopy	Theory, Instrumentation, Applications of nuclear quadruple coupling
*Extra	29	Dr. Ram Sahay	CHE-525, Unit-5: Mossbauer Spectroscopy	Theory, Instrumentation, Applications of hyperfine interaction
	30	Dr. Ram Sahay	CHE-525, Unit-5: Mossbauer Spectroscopy	Problems related to Mossbauer Spectroscopy
	31	Dr. Ram Sahay	CHE-525, Unit-5: Mossbauer Spectroscopy	Problems related to Mossbauer Spectroscopy
	39	Mrs. Namrata Mishra	CHE-528, Unit-5: Pd (0) and Pd (II) Complex in Organic Synthesis	Pd(0) and Pd(II) complex in organic synthesis: Heck reaction
	40	Mrs. Namrata Mishra	CHE-528, Unit-5: Pd (0) and Pd (II) Complex in Organic Synthesis	Suzuki reaction
	41	Mrs. Namrata Mishra	CHE-528, Unit-5: Pd (0) and Pd (II) Complex in Organic Synthesis	Stille reaction
	42	Mrs. Namrata Mishra	CHE-528, Unit-5: Pd (0) and Pd (II) Complex in Organic Synthesis	Sonogashira reaction
	36	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of Iso-thiazole
	37	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of Pyrazine
	38	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of Pyrimidine
	39	Mrs. Priyanka Mishra	CHE- 531, Unit-3: Heterocycles	Chemistry of Pyridaze
	40	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Carbonyl Compounds	Fragmentation ( Norrish-I and Norrish-II)
	41	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Carbonyl Compounds	Reaction of saturated acyclic, cyclic and unsaturated carbonyl Compounds
	42	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of carboxyl groups in organic synthesis
	43	Mrs. Namrata Mishra	CHE-531, Unit-2: Protection and Deprotection of Groups	Principle of protection and deprotection of carboxyl groups in organic synthesis
	44	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Carbonyl Compounds	Reaction of saturated acyclic, cyclic and unsaturated carbonyl compounds
	45	Dr. Shiv Kumar Vernwal	CHE-531, Unit-5: Photochemistry of Carbonyl Compounds	Reaction of saturated acyclic, cyclic and unsaturated carbonyl Compounds
	33	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Halogenated insecticides
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34	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	Halogenated alkanes, gammexane
35	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	DDT and important analogs (DFDT, DMDT, DDD)
36	Mrs. Priyanka Mishra	CHE-534, Unit-4: Insecticides	DDT and important analogs (DFDT, DMDT, DDD)
37	Mrs. Priyanka Mishra	CHE-534, Unit-5 (a) Fungicides	Synthesis and applications of Halogenated phenols and quinones
38	Mrs. Priyanka Mishra	CHE-534, Unit-5 (a) Fungicides	Synthesis and applications of dithiocarbamates
39	Mrs. Priyanka Mishra	CHE-534, Unit-5 (a) Fungicides	Synthesis and applications of Zineb, Maneb, Ferbam
40	Mrs. Priyanka Mishra	CHE-534, Unit-5 (a) Fungicides	Synthesis and applications of Zineb, Maneb, Ferbam
41	Mrs. Priyanka Mishra	CHE-534, Unit-5 (b) Herbicides	Synthesis and applications of 2,4-D and related compounds
42	Mrs. Priyanka Mishra	CHE-534, Unit-5 (b) Herbicides	Synthesis and applications of 2,4-D and related compounds
43	Mrs. Priyanka Mishra	CHE-534, Unit-5 (b) Herbicides	Synthesis and applications of substituted ureas and carbamates