BENGAL SCHOOL OF TECHNOLOGY

AUTONOMOUS

Estd. by Supreme Educational Development and Charitable Organization (SEDCO)
Recognised by UGC & included u/s 2(f) of UGC Act 1956
Approved by Pharmacy Council of India, New Delhi
Affiliated to: Maulana Abul Kalam Azad University of Technology (MAKAUT) &
West Bengal State Council of Technical and Vocational Education and Skill Development (WBSCT&VE&SD)
Accredited by NAAC with "A" Grade, NBA for B. Pharm & QCI

Lesson Plan

Class: 2nd Year, 3rd Semester — Session: 2026–2027
Date of Commencement of Session: 30th July, 2026
Subject Title: Pharmaceutical Organic Chemistry II — Subject code: PT-314 & PT-394
Faculty In charge: **Dr. Sudip Kumar Kar**, Dr. Sasmita Dash, Mr. Manoj Mana

Schedule of allotted class work (w.e.f)

Days	Monday	Tuesday	Wednesday	Thursday	Friday
Time/period Section A	10.40-11.40 AM		11.40-12.40 PM		
Section B	12.40-01.40 PM		09.40-10.40 AM		

Available Periods/week___4__(Section A + B)_____Available periods in the total semester __54____ (Section A + B)_____Extra Classes_____
Guest Lectures planned if any with justification_____

Scope of the course: This subject deals with general methods of preparation and reactions of some organic compounds. Reactivity of organic compounds is also studied here. The syllabus emphasizes on mechanisms and orientation of reactions. Chemistry of fats and oils are also included in the syllabus.

Objective of the course: Upon completion of the course the student shall be able to

1. write the structure, name and the type of isomerism of the organic compounds
2. write the reaction, name the reaction and orientation of reactions
3. account for reactivity/stability of compounds
4. prepare organic compounds

Reading materials:

A. Text Books

Sl. No.	Name of the Text Book(s)	Author	Edition	Publisher	Accession No.	Rack No.
1.	Organic Chemistry	I.L Finar	6th, (Vol. I & II)	PEARSON	164	49E
2.	Organic Chemistry	R. T. Morrison, R. N. Boyd and S. K. Bhattacharjee	7th	PEARSON	4003	50A
3.	A Textbook of Organic Chemistry	A. Bahl and B. S. Bahl	22nd	S. CHAND	6178	50F

B. Reference Books

Sl. No.	Name of the Text Book(s)	Author	Edition	Publisher	Accession No.	Rack No.
1.	Pharmaceutical Organic Chemistry	V. Alagarsamy		Pharma Med Press		

C. Journals / Website/Any other resources

Sl. No.	Name of the journal (s)/website/others	Source	Vol. no.	Month & Year

Daily Teaching Schedule for UNIT-I

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
1.	03.08.2026	Mon	Introduction to Aromatic compounds, Structural elucidation of Kekule structure of benzene	Integrative Approach / Lecture with chalk-duster	A2, A3
2.	05.08.2026	Wed	Aromaticity, Huckel 4n + 2 rule, Orbital picture of benzene	Integrative Approach / Lecture with chalk-duster	A2, A3
3.	10.08.2026	Mon	Preparation of benzene	Integrative Approach / Lecture with chalk-duster	A3, B1
4.	12.08.2026	Wed	Electrophilic aromatic substitution, examples, Activating and Deactivating groups	Integrative Approach / Lecture with chalk-duster	A1, A2
5.	17.08.2026	Mon	Orientation in di-substituted benzene	Integrative Approach / Lecture with chalk-duster	A1, A2
6.	19.08.2026	Wed	Mechanism of nitration, sulphonation, Friedel-Craft alkylation/acylation, and halogenation	Integrative Approach / Lecture with chalk-duster	A1, A2
7.	24.08.2026	Mon	Limitation of Friedel-Craft alkylation/acylation	Integrative Approach / Lecture with chalk-duster	A3, B1
8.	31.08.2026	Mon	Theory of reactivity	Integrative Approach / Lecture with chalk-duster	A1, A2

9.	02.09.2026	Wed	Theory of orientation	Integrative Approach / Lecture with chalk-duster	A1, A2
10.	07.09.2026	Mon	Structure, synthesis and uses of DDT, Saccharin, BHC, Chloramine T	Integrative Approach / Lecture with chalk-duster	A1, A3, B1

Daily Teaching Schedule for UNIT-II

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
1.	09.09.2026	Wed	Aromatic Amine (properties, classification and preparation)	Integrative Approach / Lecture with chalk-duster	A1, A2
2.	14.09.2026	Mon	Aromatic Amine (reactions)	Integrative Approach / Lecture with chalk-duster	A1, A2
3.	16.09.2026	Wed	Aromatic Amine (reactions continued), Basicity of amine, Effect of substituents on basicity	Integrative Approach / Lecture with chalk-duster	A1, A2
4.	21.09.2026	Mon	Diazonium salt (preparation and reactions)	Integrative Approach / Lecture with chalk-duster	A1, A2, B1
5.	23.09.2026	Wed	Diazonium salt (preparation and reactions)	Integrative Approach / Lecture with chalk-duster	A1, A2, B1
6.	28.09.2026	Mon	Phenol (properties, preparation, reactions)	Integrative Approach / Lecture with chalk-duster	A1, A2
7.	30.09.2026	Wed	Phenol (reactions continued)	Integrative Approach / Lecture with chalk-duster	A1, A2
8.	05.10.2026	Mon	Phenol derivatives, Dihydric and Trihydric Phenol	Integrative Approach / Lecture with chalk-duster	A1, A2
9.	07.10.2026	Wed	Acidity of phenols, Effect of substituents on acidity	Integrative Approach / Lecture with chalk-duster	A1, A2
			Aromatic acid (By: **Dr. Sasmita Dash)**		

Daily Teaching Schedule for UNIT-III

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
			By: **Dr. Sasmita Dash**		

Daily Teaching Schedule for UNIT-IV

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
1.	12.10.2026	Mon	Naphthalene (properties, nomenclature, synthesis)	Integrative Approach / Lecture with chalk-duster	A1, A2
2.	14.10.2026	Wed	Naphthalene (reactions)	Integrative Approach / Lecture with chalk-duster	A1, A2
3.	28.10.2026	Wed	Naphthalene (reactions continued)	Integrative Approach / Lecture with chalk-duster	A1, A2
4.	02.11.2026	Mon	Anthracene (properties, nomenclature, synthesis)	Integrative Approach / Lecture with chalk-duster	A1, A2
5.	04.11.2026	Wed	Anthracene (reactions)	Integrative Approach / Lecture with chalk-duster	A1, A2
6.	18.11.2026	Wed	Phenanthrene (nomenclature, synthesis, reactions),	Integrative Approach / Lecture with chalk-duster	A1, A2
7.	23.11.2026	Mon	Medicinal uses of Naphthalene, Anthracene, Phenanthrene	Integrative Approach / Lecture with chalk-duster	A1, A2, B1
8.	25.11.2026	Wed	Structure and medicinal uses Diphenyl methane, Triphenyl methane	Integrative Approach / Lecture with chalk-duster	A1, A2, B1

Daily Teaching Schedule for UNIT-V

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
			By: **Mr. Manoj Mana**		
Grand total number of classes planned for the semester					

Daily Teaching Schedule for Practical

Sl. No.	Date	Day	Title to be covered
1.	30.07.2026 to 06.08.2026	1	Laboratory Safety
2.	10.08.2026 to 13.08.2026	2	Synthesis of Benzil
3.	17.08.2026 to 20.08.2026	3	Recrystallization and Melting point determination of Benzil, Synthesis of Dibenzal-acetone
4.	24.08.2026 to 27.08.2026	4	Recrystallization and Melting point determination of Dibenzal-acetone Synthesis of m-Dinitrobenzene
5.	31.08.2026 to 03.09.2026	5	Recrystallization and Melting point determination of m-Dinitrobenzene

6.	07.09.2026 to 10.09.2026	6	Synthesis of Acetanilide
7.	14.09.2026 to 17.09.2026	7	Recrystallization and Melting point determination of Acetanilide
8.	21.09.2026 to 24.09.2026	8	Synthesis of 5-Nitrosalicylic acid
9.	28.09.2026 to 01.10.2026	9	Recrystallization and Melting point determination of 5-Nitrosalicylic acid, Synthesis of p-Iodobenzoic acid
10.	05.10.2026 to 08.10.2026	10	Recrystallization and Melting point determination of p-Iodobenzoic acid
11.	12.10.2026 to 15.10.2026	11	Synthesis of 1-Phenyl-Azo-2-Naphthol
12.	27.10.2026 to 05.11.2026	12	Recrystallization and Melting point determination of 1-Phenyl-Azo-2-Naphthol Synthesis of Benzoic acid
13.	02.11.2026 to 05.11.2026	13	Recrystallization and Melting point determination of Benzoic acid Synthesis of Benzanilide
14.	16.11.2026 to 19.11.2026	14	Recrystallization and Melting point determination of Benzanilide