



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: 2026-27

Date of Commencement of Session: 30.8.26

Subject Name: Physical Pharmaceutics-I

Subject code: PT-316,396

Faculty In charge: Dishari Dutta

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

Days	Monday	Tuesday	Wednesday	Thursday	Friday
Time/period Section A	09:40-10:40		10:40-11:40		
Section B	11:40-12:40		12:40-01:40		

Available Periods/week 2 Available periods in the total semester _____ Extra Classes _____

Guest Lectures planned if any with justification _____

Scope & Objective of the course: _____

Reading materials:

A. Text Books

Sl. No.	Name of the Text Book(s)	Author	Edition	Publisher	Accession No.	Rack No

B. Reference Books

Sl. No.	Name of the Text Book(s)	Author	Edition	Publisher	Accession No.	Rack No
1	Physical Pharmaceutics	by C.V.S.Subramanyam	2nd	Vallabh Prakashan	10914	C6

C. Journals / Website/Any other resources

Sl. No.	Name of the journal (s)/website/others	Source	Vol. no.	Month & Year
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Daily Teaching Schedule for UNIT-I

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
1	2.9.26	Wed	States of Matter and Properties of Matter.,	PPT	C2
2	7.9.29	Mon	State of matter, changes in the state of matter, latent heats, vapour pressure	PPT	C2
3	9.9.26	Wed	Sublimation critical point	PPT	C2
4	14.9.26	Mon	Liquid complexes, liquid crystals, glassy states	PPT	C2
5	16.9.26	Wed	Solid- crystalline, amorphous & polymorphism.	PPT	C2
6	21.9.26	Mon	Physicochemical properties of drug molecules: refractive index, optical rotation	PPT	C2
7	28.9.26	Mon	Dielectric constant, dipole moment, dissociation constant,	PPT	C2
8	30.9.26	Wed	eutectic mixtures, gases, relative humidity	PPT	C2
9	5.10.26	Mon	Test/Numerical	PPT	C2

Daily Teaching Schedule for UNIT-III

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
1	3.8.26	Mon	Surface and interfacial phenomenon: Liquid interface, surface & interfacial tensions	PPT	C2
2	5.8.26	Wed	Surface free energy, measurement of surface & interfacial tensions	PPT	C2
3	10.8.26	Mon	Measurement of surface & interfacial tensions,	PPT	C2
4	12.8.26	Wed	Spreading coefficient, adsorption at liquid interfaces,	PPT	C2
5	17.8.26	Mon	Adsorption at liquid interfaces,	PPT	C2
6	19.8.26	Wed	Surface active agents, HLB Scale	PPT	C2
7	24.8.26	Mon	Solubilization, detergency,	PPT	C2
8	31.8.26	Mon	Adsorption at solid interface	PPT	C2

Daily Teaching Schedule for UNIT-V

Sl. No.	Date	Day	Title to be covered	Teaching Pedagogy / T.L.P.	Suggested Knowledge Resources
1	2.11.26	Mon	Ph, Buffers and Isotonic solutions: Sorensen's ph scale,	PPT	C2
2	4.11.26	Wed	Ph determination (electrometric and calorimetric),	PPT	C2
3	9.11.26	Mon	Applications of buffers.	PPT	C2
4	16.11.26	Mon	Buffer equation,	PPT	C2
5	18.11.26	Wed	Buffer capacity	PPT	C2
6	23.11.26	Mon	Buffers in pharmaceutical and biological systems, buffered isotonic solutions	PPT	C2
7	25.11.26	Wed	Numerical	PPT	C2

Grand total number of classes planned for the semester 24

Daily Teaching Schedule for Practical

Sl. No.	Date	Day	Title to be covered
1	3.8.26	Monday, group B	Determination of surface tension of given liquids by drop count and dropweight method
2	10.8.26	Monday	Determination the solubility of drug at room temperature
3	17.8.26	Monday	Determination of critical micellar concentration of surfactants
4	24.8.26	Monday	Determination of HLB number of a surfactant by saponification method
5	31.8.26	Monday	Determination of pKa value by Half Neutralization/ Henderson Hasselbalch equation.
6	7.9.26	Monday	Determination of Partition co- efficient of benzoic acid in benzene and water
7	14.9.26	Monday	Determination of Partition co- efficient of Iodine in CCl ₄ and water
8	21.9.26	Monday	Determination of % composition of NaCl in a solution using phenol-water system by CST method
9	28.9.26	Monday	Determination of stability constant and donor acceptor ratio of Cupric- Glycine complex by pH titration method
10	5.10.26	Monday	Determination of stability constant and donor acceptor ratio of PABA-Caffeine complex by solubility method

11	2.11.26	Monday	Determination of Freundlich and Langmuir constants using activated charcoal
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