



**DR. B. C. ROY COLLEGE OF PHARMACY & AHS, DURGAPUR
(NBA Accredited for UG Pharmacy Program)**

VIDEO & SUPPLEMENTARY MATERIAL POSTING

FACULTY: SbR

PROGRAM: M. PHARM

Course Code: MPT-1063

Course Name: MODERN PHARMACEUTICS

“Some books are to be tasted, others to be swallowed, and some few to be chewed and digested: that is, some books are to be read only in parts; others to be read but not curiously; and some few to be read wholly, and with diligence and attention.”

- Sir Francis Bacon (1561 - 1626)

English Philosopher & Statesman

SYLLABUS PORTION TO BE COVERED

1. a. Preformation Concepts – Drug Excipient interactions - different methods, kinetics of stability, Stability testing. Theories of dispersion and pharmaceutical Dispersion (Emulsion and Suspension, SMEDDS) preparation and stability Large and small volume parenteral – physiological and formulation consideration, Manufacturing and evaluation. (10 Hr)

b. Optimization techniques in Pharmaceutical Formulation: Concept and parameters of optimization, Optimization techniques in pharmaceutical formulation and processing. Statistical design, Response surface method, Contour designs, Factorial designs and application in formulation 10 Hr

2 Validation: Introduction to Pharmaceutical Validation, Scope & merits of Validation, Validation and calibration of Master plan, ICH & WHO guidelines for calibration and validation of equipments, Validation of specific dosage form, Types of validation. Government regulation, Manufacturing Process Model, URS, DQ, IQ, OQ & P.Q. of facilities. (10 Hr)

Suggested Books for the Course (with links):

Sl. No.	Book Name, Ed., Vol	Authors	Weblink(s)
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1.	Modern Pharmaceutics, 5th Ed, (2 Vol Set)*	A.T. Florence, J. Siepman	Read 16MB
2.	Modern Pharmaceutics, 4th Ed.*	G. S. Banker, C. T. Rhodes	Read 11MB
3.	Pharmaceutical Preformulation and Formulation: A Practical Guide from Candidate Drug Selection to Commercial Dosage Form, 2nd Ed**	Mark Gibson	Read 7 MB
4.	Pharmaceutical Preformulation and Formulation: A Practical Guide from Candidate Drug Selection to Commercial Dosage Form, 1st Ed**	Mark Gibson	Read 16MB
5.	Theory & Practice of Industrial Pharmacy, 3rd Ed.*	Lieberman, Lachman, Kanig	Read 78MB (Caution Large File)
6.	Remington: The Science and Practice of Pharmacy, 21st Ed*** [Chapter 38 - Property based drug design and Preformulation]	Phillip B. Gerbino Ed.	Read 969MB (Caution: Large File)
7.	Pharmaceutical Preformulation** (Use any ePub reader app)	J. T. Carstensen	Read 4MB
8.	Preformulation in Solid Dosage Form Development, 1st Ed***	Moji C Adeyeye, H G Brittain	Read 12MB
9.	Handbook of Preformulation: Chemical, Biological, and Botanical Drugs, 1st Ed.***	S. K. Niazi	Read 4MB
10.	Essentials of Pharmaceutical Preformulation**	Simon Gaisford, Mark Saunders	Read 2MB
11.	Integrated Pharmaceutics: Applied Preformulation, Product Design, and Regulatory Science***	Antoine Al-Achi, Mali Ram Gupta, William Craig Stagne	Read 6MB
12.	Handbook of Preformulation: Chemical, Biological, and Botanical Drugs, 2nd Ed.***	S. K. Niazi	Read 10MB



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13.	Pharmaceutical Formulation: The Science and Technology of Dosage Forms***	Geoffrey D. Tovey	Read 15MB
14.	Physicochemical Principles of Pharmacy - In Manufacture, Formulation and Clinical Use, 6th Ed.	A. T. Florence, D. Attwood	Read [CAUTION 147MB]

***Book #1, #2 & 5: Follows the Topics on Preformulation Concepts most closely**

****Book #3 & #4: Good Reading for further understanding**

*****Other Books: For advanced in-depth knowledge**

Supplementary Materials for Reference and Self Study:

Class Date	Module (as per Lesson Plan)	Topic	Live Recording Link	Powerpoint Presentation Link	Supplementary Notes / Resources	Remarks, if any
10-11-2020	-	Introduction to Pharmaceutics	YouTube Link			
17-11-2020	1(a)	Preformulation Concepts	YouTube Link	PPT	1. Remingt on-Chapter 38 2. Book #13-Chapter 1	Also read PRE FORMULATION chapter of Book # 1 & 2.
01-12-2020	1(a)	Preformulation Concepts	YouTube Link	-do-	-do-	
08-12-2020	Class was suspended					
15-12-2020	1(a)	Preformulation Concepts	YouTube Link	-do-	-do-	
19-01-2021	1(a)	Preformulation Concepts	YouTube Link	-do-	-do-	
09-02-2021	1(a)	Drug-Excipient Interactions	YouTube Link	PPT	Supporting Material	



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23-02-2021	1(a)	Stability Kinetics & Testing	YouTube Link	PPT	1. Martin Chapt er-14 2. Attwood Chapter-3 3. Lieberman Chapter-26	
02-03-2021	1(a)	Theory of Dispersions & SMEDDS	YouTube Link	Whiteboard Snapshots	Banker (5th Ed)-V1_C h11	
	1(a)	Suspensions				
	1(a)	Emulsions				
	1(a)	Parenterals			Banker (5th Ed)-V1_C h15	
	1(b)	Optimization			Banker (4th Ed) Ch18	
	2	Validation		Link to External Presentation	1.WHO guidelines (who.;int) 2.ICH guidelines (ich.org) 3. FDA guidelines (fda.gov/c der/)	Additional Repository