Course Syllabus
Gyanmanjari Pharmacy College
Semester-1(M. Pharm.)

Subject: Pharmaceutics Practical-I (MPHPC11505)

Type of course: Major

Prerequisite: B.Pharmacy

Rationale: Course designed to impart advanced knowledge and skills required to learn various aspects and concepts at pharmaceutical industries.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks					Total Marks
				Theory Marks		Practical Marks		CA	
CI	T	P	C	ESE	MSE	V	P	ALA	
-	-	12	6	-	-	25	75	50	150

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.

List of Practicals:

1. Analysis of pharmacopoeial compounds and their formulations by UV Vis spectrophotometer
2. Simultaneous estimation of multi component containing formulations by UV spectrophotometry
3. Experiments based on HPLC
4. Experiments based on Gas Chromatography
5. Estimation of riboflavin/quinine sulphate by fluorimetry
6. Estimation of sodium/potassium by flame photometry
7. To perform In-vitro dissolution profile of CR/ SR marketed formulation
8. Formulation and evaluation of sustained release matrix tablets
9. Formulation and evaluation osmotically controlled DDS
10. Preparation and evaluation of Floating DDS- hydro dynamically balanced DDS
11. Formulation and evaluation of Muco adhesive tablets.
12. Formulation and evaluation of trans dermal patches.
13. To carry out preformulation studies of tablets.
14. To study the effect of compressional force on tablets disintegration time.
15. To study Micromeritic properties of powders and granulation.
16. To study the effect of particle size on dissolution of a tablet.
17. To study the effect of binders on dissolution of a tablet.
18. To plot Heckal plot, Higuchi and peppas plot and determine similarity factors.

Reference Books:

[1] Generic Drug Product Development, Solid Oral Dosage forms. Leon Shargel and Isader Kaufer. Marcel Dekker series, Vol.143

[2] The Pharmaceutical Regulatory Process, Second Edition Edited by Ira R. Berry and Robert P.Martin, Drugs and the Pharmaceutical Sciences, Vol.185, Informa Health care Publishers.

[3] New Drug Approval Process: Accelerating Global Registrations By Richard A Guarino, MD, 5th edition, Drugs and the Pharmaceutical Sciences,Vol.190.

[4] Guidebook for drug regulatory submissions / Sandy Weinberg. By John Wiley & Sons. Inc.

[5] FDA regulatory affairs: a guide for prescription drugs, medical devices, and biologics/edited By Douglas J. Pisano, David Mantus.

[6] Clinical Trials and Human Research: A Practical Guide to Regulatory Compliance By Fay A.Rozovsky and Rodney K. Adams.

[7] www.ich.org/

[8] www.fda.gov/

[9] europa.eu/index_en.htm

[10] https://www.tga.gov.au/tga-basicsSpectroscopy by Donald L Pavia, Gary M Lampman, George S Kriz, James A Vyvyan