

## RAGHU COLLEGE OF PHARMACY

(Approved by A.I.C.T.E. PCI New Delhi & Affiliated to Andhra University, Visakhapatnam)

Dakamarri, Bheemunipatnam (Mandalam), Visakhapatnam - 531 162

<u>COURSE PLAN</u>- One copy to be submitted to the HOD one week before commencement of the Semester

Subject Code	Name of the Subject	Class/ Semester	Name of the Faculty/ Designation	No. of Students	Total periods per Semester / Year	
					Lectures	Tutorials
BP403T	PHYSICAL PHARMACEUTICS II	II/IV 2 <sup>nd</sup> Semester	A.Lakshmi usha	57	64	13

Lecture No.	Topic	E.T. Gadgets used, if any (LCD/OHP/	Date on which	
		Charts/Models)	completed*	
L1	Classification of dispersed systems	CHALK & TALK	26-6-2023	
L2	Size and shape of colloids	CHALK & TALK	27-6-2023	
L3	Type of Colloids	CHALK & TALK	28-6-2023	
L4	Types of colloids	CHALK & TALK	29-6-2023	
L5	Methods to prepare lyophobic colloids	CHALK & TALK	30-6-2023	
L6	Methods to prepare lyophobic colloids	CHALK & TALK	3-7-2023	
L7	Optical properties of colloids	CHALK & TALK	4-7-2023	
L8	Kinetic properties of colloids	CHALK & TALK	5-7-2023	
T1	Tutorial	Handouts	6-7-2023	
L9	Kinetic properties of colloids	CHALK & TALK	7-7-2023	
L10	Electrical properties of colloids	CHALK & TALK	10-7-2023	
L11	Coacervation, Peptization	CHALK & TALK	11-7-2023	
L12	Protective action, Applications of colloids	CHALK & TALK	12-7-2023	
T2	Tutorial	Handouts	12 7 2022	
L13	Rheology- Introduction, Newtons law	LCD	13-7-2023 14-7-2023	
L14	Non Newtonian systems	LCD	1	
L15	Non Newtonian systems	LCD	17-7-2023	
L16	Thixotropy and applications	LCD	18-7-2023	
T3	Tutorial	Handouts	19-7-2023	
L17	Determination of viscosity and	CHALK & TALK	20-7-2023	
	and	CHALK & TALK	21-7-2023	

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capillary viscometer.		21.7.2022
Falling sphere viscometer	CHALK & TALK	24-7-2023
Cup and bob viscometer	CHALK & TALK	25-7-2023
Cone and plate viscometer		26-7-2023
Tutorial		27-7-2023
Deformation of solids		28-7-2023
Deformation of solids		31-7-2023
Sedimentation of flocculated	CHALK & TALK	1-8-2023
Difference between flocculated and	CHALK & TALK	2-8-2023
Tutorial	Uandanta	2 9 2022
Formulation of suspensions,	CHALK & TALK	3-8-2023 4-8-2023
Controlled flocculation	CYV.	
Emulsions introduction		7-8-2023
Identification of Emulsions		8-8-2023
Tutorial		9-8-2023
		10-8-2023
Theories of Emulsification		11-8-2023
Stability of Emulsion	CHALK & TALK	14-8-2023
Tutorial	CHALK & TALK	16-8-2023
		17-8-2023
Micro and Multiple emulsion		18-8-2023
Rheological properties of amulai	CHALK & TALK	28-8-2023
and preservation of emulsion	CHALK & TALK	29-8-2023
	CHALK & TALK	30-8-2023
		31-8-2023
		1-9-2023
Micromeritics-introduction	LCD	4-9-2023
Size determination techniques optical microscopy, sieving	LCD	6-9-2023
Sedimentation, Coulter counter	LCD	8-9-2023
Particle shape, specific surface and surface area determination	LCD	11-9-2023
Air permeability method and	LCD	12-9-2023
Different densities and density	LCD	13-9-2023
Tutorial	TT 1	<u> </u>
	Handouts	14 0 2000
Different densities and density	LCD	14-9-2023 15-9-2023
	Tutorial Formulation of suspensions, wetting of particles Controlled flocculation Emulsions introduction Identification of Emulsions Tutorial Theories of Emulsification Theories of Emulsification Stability of Emulsion  Tutorial Stability of Emulsion Micro and Multiple emulsion Rheological properties of emulsion and preservation of emulsion HLB scale Tutorial HLB scale Micromeritics-introduction Size determination techniques optical microscopy, sieving Sedimentation, Coulter counter technique Particle shape, specific surface and surface area determination methods-adsorption Air permeability method and derived properties Different densities and density determination methods	Falling sphere viscometer Cup and bob viscometer Cup and bob viscometer Chalk & Talk Cone and plate viscometer Chalk & Talk Cone and plate viscometer Chalk & Talk Tutorial Deformation of solids Chalk & Talk Deformation of solids Chalk & Talk Sedimentation of flocculated particles, sedimentation parameters Degree of deflocculation, Difference between flocculated and deflocculated suspensions Tutorial Handouts Formulation of suspensions, wetting of particles Controlled flocculation Chalk & Talk Identification of Emulsions Chalk & Talk Identification of Emulsions Chalk & Talk Tutorial Handouts Theories of Emulsification Chalk & Talk Stability of Emulsion Chalk & Talk Tutorial Stability of Emulsion Chalk & Talk Cha

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L44	Porosity	LCD	18-9-2023
L45	Flow properties	LCD	20-9-2023
T10	Tutorial	LCD	21-9-2023
L46	Flow properties	Handouts	22-9-2023
L47	Zero order	CHALK & TALK	
L48	Reaction kinetics	CHALK & TALK	25-9-2023
L49	Reaction kinetics	CHALK & TALK	26-9-2023
	Determined:	CHALK & TALK	27-9-2023
L50	Determination of rate and order of reaction	CHALK & TALK	29-9-2023
L51	Factors influencing chemical degradation of pharmaceutical products	CHALK & TALK	3-10-2023
L52	Factors influencing chemical degradation of pharmaceutical product	CHALK & TALK	4-10-2023
T11	Tutorial	Handouts	5-10-2023
L53	Stabilization of medicinal agents	CHALK & TALK	6-10-2023
L54	Accelerated stability testing	CHALK & TALK	9-10-2023
L55	Photolytic degradation	CHALK & TALK	10-10-2023
L56	Numerical problems	CHALK & TALK	11-10-2023
T12	Tutorial	Handouts	12-10-2023
L57	Numerical problems	CHALK & TALK	13-10-2023
L58	Revision		16-10-2023
L59	Revision		17-10-2023
L60.	Revision		18-10-2023
T13	Tutorial		19-10-2023
L61.	Revision		20-10-2023
L62.	Revision		23-10-2023
L63.	Revision		30-10-2023
L64.	Revision		31-10-2023

Lecture Incharge: A.L. Ushay.

Principal: Joseph M.

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Subject	Name of the Subject	Class/	Name of the Faculty/
Code		Semester	Designation
BP408P	PHYSICAL PHARMACEUTICS II PRACTICAL	II/IV 2 <sup>nd</sup> Semester	A.Lakshmi usha

<u>COURSE PLAN</u>- One copy to be submitted to the HOD one week before commencement of the Semester

CN	N. Cthe Evneriment	Batch I	Batch II	Remarks
1.	Name of the Experiment  Determination of Viscocity of a liquid using Ostwald's	28-6-2023	6-7-2023	
2.	Viscometer.  Determination of Bulk density, True density and porosity.	5-7-2023	13-7-2023	,
3.	Determination of Angle of repose and influence of lubricant on angle of repose.	12-7-2023	20-7-2023	
4.	Determination of sedimentation volume with effect of different suspending agents.	19-7-2023	27-7-2023	
5.	Determination of sedimentation volume with effect of different concentrations of a single suspending agent.	26-7-2023	3-8-2023	
6.	Determination of particle size, particle size distribution using sieving method.	2-8-2023	10-8-2023	
7.	Determination of particle size, particle size distribution using Microscopic method.	9-8-2023	17-8-2023	•
8.	Determination of reaction rate constant first order.	16-8-2023	14-9-2023	
9.	Determination of reaction rate constant first order.	30-8-2023	21-9-2023	