



# RAGHU COLLEGE OF PHARMACY

(Approved by PCI New Delhi & Affiliated to Andhra University, Visakhapatnam)  
Dakamarri, Bheemunipatnam (Mandalam), Visakhapatnam - 531 162.

**Courseplan-** 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 Faculty/ Designation	No. of Students	Total periods per Semester / Year Lectures
BP102T	Pharmaceutical Analysis	I/IVSec-B	K.Balakrishna	55	37

Lecture No.	TOPICS	gadgets used, if any (LCD/OHP/ Charts/Models)	Date on which completed
L01	Introduction	Chalk & Board	19-12-2023
L02	Different techniques of Analysis	Chalk & Board	21-12-2023
L03	Methods of Expressing Concentration	Chalk & Board	26-12-2023
L04	Primary & Secondary Standards, Sources	Chalk & Board	28-12-2023
L05	Preparation & Standardization of various Molar & Normal Concentration of Oxalic acid, Sodium hydroxide.	Chalk & Board	02-01-2024
L06	Hydrochloric acid, Sulphuric acid, Sodium thiosulphate(Molar & Normal Concentration)	Chalk & Board	04-01-2024
L07	Potassium permanganate, Ceric ammonium sulphate(Molar & Normal Concentration)	Chalk & Board	09-01-2024
L08	Errors , Its sources and minimize errors	Chalk & Board	11-01-2024
L09	Accuracy, Precision, Significant figures.	Chalk & Board	18-01-2024
L10	Pharmacopeia, Sources of Impurities in	Chalk & Board	23-01-2024

	medicinal agents.		
L11	Limit tests	Chalk & Board	25-02-2024
L12	Tutorial	Handouts	30-02-2024
L13	Redox titrations		01-02-2024
L14	Oxidising & Reducing reagents	Chalk & Board	06-02-2024
L15	Indicators of Redox titrations	Chalk & Board	08-02-2024
L16	Redox titrations, its types	Chalk & Board	13-02-2024
L27	Classifications of redox titrations: Permanganometry	Chalk & Board	15-02-2024
L18	Dichrometry titrations, principle and its applications	Chalk & Board	20-02-2024
L19	Cerimetry principle and its applications	Chalk & Board	22-02-2024
L20	Iodometry and iodimetry and its applications	Chalk & Board	29-02-2024
L21	Bromatometry and its applications	Chalk & Board	05-03-2024
L22	Titration with potassium iodate	Chalk & Board	07-03-2024
L23	Tutorial	Handouts	12-03-2024
L24	Conductometry : Introduction	Chalk & Board	14-03-2024
L25	Conductivity cell	Chalk & Board	19-03-2024
L26	Conductometric Titrations - Strong Acid & Strong Base, Strong Acid & Weak Base.	Chalk & Board	21-03-2024
L27	Conductometric Titrations and its applications	Chalk & Board	26-03-2024
L28	Tutorial	Chalk & Board	04-04-2024
L29	Polarography introduction	Chalk & Board	06-04-2024
L30	Ilkovic equation its derivation	Chalk & Board	16-04-2024
L31	Construction and working of dropping	Chalk & Board	18-04-2024

	mercury electrode		
L32	Working and construction of conductometry	Chalk & Board	23-04-2024
L33	Construction and working of rotating platinum electrode	Chalk & Board	25-04-2024
L34	Applications of Polarography	Chalk & Board	30-04-2024
L35	Study hour	Chalk & Board	02-05-2024
L36	Study hour	Chalk & Board	07-04-2024
L37	Study hour	Chalk & Board	09-04-2024

*K. Balakrishna*

**Signature of the Faculty Member**

*[Handwritten Signature]*

**Signature of the principal**



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COURSEPLAN—One copy has to be submitted to HOD one week before commencement of Semester

Subject Code	Name Of The Subject	Class/Semester	Name Of The Faculty	No. of students	Lectures
BP108P	Pharmaceutical analysis-1	I-I/Sec A	K. Balakrishna /AsstProfessor	55	15

S.NO	NAME OF THE PRACTICAL	REQUIREMENT	MODE OF TEACHING	DATES OF BATCH I	DATES OF BATCH 2
P1	Standardization of sodium hydroxide solution	Burette, pipette, Conical flask, NaOH, Potassium hydrogen phthalate, phenolphthalein indicator.	Chalk & Talk	27-12-2023	26-12-2023
P2	Standardization of sulphuric acid	Burette, pipette, Conical flask, sulphuric acid solution, sodium carbonate	Chalk & Talk	03-01-2023	02-02-2023
P3	Standardization of sodium thiosulphate	Burette, pipette, Conical flask, potassium iodate, potassium iodide	Chalk & Talk	10-01-2024	09-02-2024
P4	Standardization and preparation of potassium permanganate solution	Burette, pipette, Conical flask, $KMnO_4$ , oxalic acid	Chalk & Talk	24-01-2024	23-01-2024
P5	Standardization of ceric ammonium sulphate	Burette, pipette, Conical flask, ceric ammonium sulphate, arsenic tri oxide	Chalk & Talk	07-02-2024	30-01-2024
P6	Assay of sodium benzoate	Burette, pipette, Conical flask, sodium benzoate, perchloric acid, KPH, acetic anhydride, crystal violet	Chalk & Talk	14-02-2024	06-02-2024
P7	Assay of sodium chloride	Burette, pipette, Conical flask, silver nitrate, sodium chloride, $K_2Cr_2O_7$	Chalk & Talk	21-02-2024	13-02-2024
P8	Assay of ammonium chloride	Burette, pipette, Conical flask, ammonium chloride, NaOH, formaldehyde, phenolphthalein indicator, KPH.	Chalk & Talk	28-02-2024	20-02-2024

P9	Assay of ferrous sulphate	Burette, pipette, Conical flask, ferrous sulphate, $\text{KMnO}_4$ , sodium oxalate	Chalk&Talk	06-03-2024	27-02-2024
P10	Assay of copper sulphate	Burette, pipette, Conical flask, copper sulphate, potassium iodide, sodium thio sulphate, acetic acid, $\text{H}_2\text{SO}_4$	Chalk&Talk	13-03-2024	05-03-2024
P11	Assay of Calcium gluconate injection solution	Burette, pipette, Conical flask, EDTA, $\text{CaCl}_2$ , $\text{MgSO}_4$ , calcium gluconate injection, ammonia-ammonium chloride, erichrome black indicator	Chalk&Talk	20-03-2024	26-03-2024
P12	Assay of hydrogen peroxide	Burette, pipette, Conical flask, hydrogen peroxide, sulphuric acid, $\text{KMnO}_4$ , oxalic acid	Chalk&Talk	27-04-2024	02-04-2024
P13	Potentiometric titration of strong acid against strong base	Burette, pipette, Conical flask, $\text{NaOH}$ , $\text{HCl}$ , deionised water.	Chalk&Talk	03-04-2024	09-04-2024
P14	Conductometric titration of strong acid against strong base	Burette, pipette, Conical flask, $\text{NaOH}$ , $\text{HCl}$ , blanc	Chalk&Talk	10-04-2024	16-04-2024
P15	Conductometric titration of strong acid with weak acid against strong base	Burette, pipette, Conical flask, $\text{NaOH}$ , $\text{HCl}$ , blanc	Chalk&Talk	24-04-2022	23-04-2022

*R. Bela Kishore*

Signature of the faculty member

Date: 28/04/2024

*Sybilish Babu*

Signature of the Principal

Date:



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P2	Standardization of sulphuric acid	Burette, pipette, Conical flask, sulphuric acid solution, sodium carbonate	Chalk & Talk	23-12-2023	28-12-2023
P3	Standardization of sodium thiosulphate	Burette, pipette, Conical flask, potassium iodate, potassium iodide	Chalk & Talk	30-12-2024	04-01-2024
P4	Standardization and preparation of potassium permanganate solution	Burette, pipette, Conical flask, $KMnO_4$ , oxalic acid	Chalk & Talk	06-01-2024	11-01-2024
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K. Balakrishna

Signature of the faculty member

Date: 28/02/2024

Jayashree Reddy

Signature of the Principal

Date:



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L34	Tutorial	Handouts	19-04-2024
L35	Study hour	Chalk & Board	20-04-2024
L36	Study hour	Chalk & Board	25-04-2024
L37	Study hour	Chalk & Board	26-04-2024

*K. Balakrishna*

**Signature of the Faculty Member**

*Geetha Rani*

**Signature of the principal**