

KAKARAPARTI BHAVANARAYANA COLLEGE

(Sponsored by S.K.P.V.V.Hindu High Schools Committee)

Kothapet, Vijayawada-1, Andhra Pradesh.

(An Autonomous Institution with affiliation to Krishna University, Machilipatnam)

ANALYTICAL CHEMISTRY COURSE STRUCTURE

I SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE	Internal Marks	External Marks	No. of Credits
		L	P	T				
R22 ACH 101	General Chemistry	4	0	0	Core	30	70	4
R22 ACH102	Organic Chemistry	4	0	0	Core	30	70	4
R22 ACH103	Inorganic Chemistry -1	4	0	0	Core	30	70	4
R22 ACH 104	Physical Chemistry –1	4	0	0	Core	30	70	4
R22 ACH 105	Personality Development through Life Enlightenment Skills	3	1	0	Core	30	70	3
R22 ACH 106	Organic Chemistry Lab-1	0	6	0	Core	30	70	3
R22 ACH 107	Inorganic Chemistry Lab	0	6	0	Core	30	70	3
TOTAL FOR FIRST SEMESTER						210	490	25

II SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / DSE/SEC	Internal Marks	External Marks	No. of Credits
		L	P	T				
R22ACH 201	Organic Spectroscopy	4	0	0	Core	30	70	4
R22ACH 202	Physical Chemistry -2	4	0	0	Core	30	70	4
R22ACH 203	Inorganic Chemistry -2	4	0	0	Core	30	70	4
R22ACH 204	Research Methodology & IPR	3	1	0	SEC	30	70	3
DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY ONE)								
R22ACH 205	Heterocyclic Chemistry	4	0	0	DSE	30	70	4
R22ACH 206	Chemistry of Bioorganic compounds	4	0	0	DSE	30	70	4
R22ACH 207	Polymers Chemistry	4	0	0	DSE	30	70	4

LAB PRACTICALS

R22ACH 208	Organic Chemistry lab-2	0	6	0	Core	30	70	3
R22ACH 209	Physical Chemistry lab	0	6	0	Core	30	70	3
TOTAL FOR SECOND SEMESTER						210	490	25

At the end of 2nd semester, every student must undergo summer Internship/ Apprenticeship/Project work/Industrial training/Research based Project work for Six weeks and must prepare a report concerned as per approved project guidelines, and submit the same to the College 14 days before the commencement of third semester end examinations.

L – Lecture, T- Tutorial & P – Practicals

III SEMESTER

Course Code	Course Name	Teaching Hours/ week			CORE / ID/DS/ SE/OE/ MOOCS	Internal Marks	External Marks	No. of Credits
		L	P	T				
ACH 301	Separation Methods	4	0	0	Core	30	70	4
DOMAIN SPECIFIC ELECTIVE COURSES (CHOOSE ANY THREE)								
R22ACH 302	Applied Analysis-I	4	0	0	DSE	30	70	4
R22ACH 303	Chemical and Spectral Methods of Analysis	4	0	0	DSE	30	70	4
R22ACH 304	Quality Control and Standard Methods of Analysis	4	0	0	DSE	30	70	4
R22ACH 305	Bio Inorganic chemistry, Bioorganic & Bio Physical Chemistry	4	0	0	DSE	30	70	4
R22ACH 306	Green Chemistry	4	0	0	DSE	30	70	4
R22ACH 307	Food Chemistry	4	0	0	DSE	30	70	4
LAB PRACTICALS								
R22ACH 308	Classical Methods of Analysis Practical	0	6	0	Core	30	70	3
R22ACH 309	Spectral Methods of Analysis Practical	0	6	0	Core	30	70	3
OPEN ELECTIVE (INTERDISCIPLINARY/MULTIDISCIPLINARY) COURSES (CHOOSE ANY ONE)								
R22ACH 310	Chemistry in daily life	3	0	0	OEC	30	70	3
R22ACH 311	Environmental Chemistry	3	0	0	OEC	30	70	3
R22ACH 312	Techniques for modern industrial application	3	0	0	OEC	30	70	3
TOTAL FOR III SEMESTER						210	490	25