

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) KUMBAKONAM
(Curriculum – B.Sc., CHEMISTRY – 2021 – 2022 ONWARDS)

DEPARTMENT : CHEMISTRY

Programme Code: USCH

SEMESTER – I

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	Ability Enhancement	U211T1	Tamil	6	3	3	25	75	100
II	Ability Enhancement	U211E1	English	6	3	3	25	75	100
III	Core – I	U21CHC101	General Chemistry -I	6	5	3	25	75	100
III	Core – II	U21CHC102P	Volumetric Analysis Practical	3	2	3	40	60	100
III	Allied - I	U211AM1	MATHS - Calculas fourier series ZOOLOGY -Biology of invertebrates and chordates	5	4	3	25	75	100
		U211AZ1							
III	Allied – II	U211AM2	MATHS - Algebra, ODE & Trigonometry ZOOLOGY - Zoology Practical	2	-	-	-	-	-
		U212AZ2P							
IV	Ability Enhancement	U211VE	Value Education	2	2	3	25	75	100
Total				30	19	-	-	-	600

SEMESTER – II

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	Ability Enhancement	U212T2	Tamil	6	3	3	25	75	100
II	Ability Enhancement	U212E2	English	6	3	3	25	75	100
III	Core – III	U21CHC203	General Chemistry -II	6	5	3	25	75	100
III	Core – IV	U21CHC204P	Inorganic Qualitative Analysis Practical	3	2	3	40	60	100
III	Allied -II	U212AM2	MATHS - Algebra, ODE & Trigonometry ZOOLOGY - Zoology Practical Zoology Practical	2	4	3	25	75	100
		U212AZ2P					40	60	
III	Allied - III	U212AM3 U212AZ3	MATHS - Laplace transform, calculus and vector calculus ZOOLOGY - General principles of applied zoology	5	4	3	25	75	100
IV	Ability Enhancement	U212ES	Environmental Studies	2	2	3	25	75	100
Total				30	23				700

SEMESTER – III

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	Ability Enhancement	U213T3	Tamil	6	3	3	25	75	100
II	Ability Enhancement	U213E3	English	6	3	3	25	75	100
III	Core V	U21CHC305	General Chemistry -III	6	5	3	25	75	100
III	Core VI	U21CHC306P	Organic Chemistry Practical	3	2	3	40	60	100
III	Allied – IV	U213APH1	Physics	5	4	3	25	75	100
III	Allied – V	U214APH2P	Physics Practical	2	-	-	-	-	
IV	Non Major Elective – I	U21CH3NME1:1	Agricultural Chemistry (NMEC- I A)	2	2	3	25	75	100
		U21CH3NME1:2	Chemistry of consumer products (NMEC- I B)						
Total				30	19	-	-	-	600
	Self Study Course - I	U213SS1	Mathematical Aptitude for Recruitment Examinations	-	2	2	-	100	100

SEMESTER – IV

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	Ability Enhancement	U214T4	Tamil	6	3	3	25	75	100
II	Ability Enhancement	U214E4	English	6	3	3	25	75	100
III	Core -VII	U21CHC407	General Chemistry -IV	5	5	3	25	75	100
III	Core – VIII	U21CHC408P	Physical Chemistry Practical - I	3	2	3	40	60	100
III	Allied - V	U214APH2P	Physics Practical	2	4	3	40	60	100
III	Allied - VI	U214APH3	Physics	4	4	3	25	75	100
IV	Non Major Elective– II	U21CH4NME2:1	Industrial Chemistry (NMEC- II A)	2	2	3	25	75	100
		U21CH4NME2:2	Basic Clinical Chemistry(NMEC-II B)						
IV	Skill Enhancement – I Theory	U214CHSE1	Hydrochemistry	2	2	2	25	75	100
Total				30	25				800
	Self Study Course – II	U214SS2	Social Studies for Competitive Examinations		2	2	-	100	100

SEMESTER - V

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	Core - IX	U21CHC509	Inorganic Chemistry -I	5	5	3	25	75	100
III	Core - X	U21CHC510	Organic Chemistry -I	5	5	3	25	75	100
III	Core - XI	U21CHC511	Physical Chemistry-I	5	5	3	25	75	100
III	Core - XII	U21CHC512P	Gravimetric Analysis Practical	6	4	6	40	60	100
III	Major Based Elective - I	U21CH5MBE1:1	Analytical Chemistry- (E-IA) Water treatment and analysis(E-IB) Organic synthesis- (E-IC)	5	5	3	25	75	100
		U21CH5MBE1:2							
		U21CH5MBE1:3							
IV	Skill Enhancement - II Theory	U215CHSE2	Domestic Chemistry	2	2	2	25	75	100
IV	Skill Enhancement -III Theory	U215CHSE3	Impact of Medicinal Plants on Society	2	2	2	25	75	100
Total				30	28				700

SEMESTER - VI

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	Core - XIII	U21CHC613	Organic Chemistry -II	6	5	3	25	75	100
III	Core - XIV	U21CHC614	Physical Chemistry-II	6	5	3	25	75	100
III	Core - XV	U21CHC615P	Physical Chemistry Practical - II	6	4	3	40	60	100
III	Major Based Elective - II	U21CH6MBE2:1	Inorganic Chemistry -II (E-IIA) Food chemistry - (E -IIB) Health chemistry - (E -IIC)	6	5	3	25	75	100
		U21CH6MBE2:2							
		U21CH6MBE2:3							
III	Major Based Elective - III	U21CH6MBE3:1	Pharmaceutical Chemistry- (E-IIIA) Bio chemistry- (E-IIIB) Applied chemistry - (E-IIIC)	5	5	3	25	75	100
		U21CH6MBE3:2							
		U21CH6MBE3:3							
V	Ability Enhancement	U216GS	Gender Studies	1	1	3	25	75	100
V		U21EA	Extension Activities	-	1	-	-	-	-
Total				30	26				600

**Course Structure Abstract for
B.Sc., Programme 2020-2021 onwards**

Part	Course	Total No. of Papers	Hours	Credit	Mark
I	Tamil	4	24	12	400
II	English	4	24	12	400
III	Core Course	15	74	61	1500
III	Allied Course	6	27	24	600
III	Major Based Elective Course	3	16	15	300
IV	Non Major Elective Course	2	4	4	200
IV	Value Education	1	2	2	100
IV	Environmental Studies	1	2	2	100
IV	Skill Enhancement	3	6	6	300
V	Gender Studies	1	1	1	100
V	Extension Activities	--	-	1	---
Total				140	4000
Extra Credit Courses					
	Self Study Course	2		4	200
Total			180	144	4200

**COURSES OFFERED BY THE DEPARTMENT OF CHEMISTRY
SEMESTER - I**

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	Allied I	U211ACH1	Allied Chemistry-I	5	4	3	25	75	100
	Allied II	U212ACH2P	Allied Chemistry Practical-II	2	4	3	40	60	100

SEMESTER - II

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	Allied II	U212ACH2P	Allied Chemistry Practical-II	2	4	3	40	60	100
	Allied III	U212ACH3	Allied Chemistry -III	5	4	3	25	75	100

SEMESTER - III

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	Allied IV	U213ACH1	Allied Chemistry -I	5	4	3	25	75	100
	Allied V	U214ACH2P	Allied Chemistry Practical-II	2	4	3	40	60	100
IV	Non Major elective course - I	U21CH3NME1:1	Agricultural Chemistry (NMEC- I A) Chemistry of consumer products (NMEC- I B)	2	2	3	25	75	100
		U21CH3NME1:2							

SEMESTER - IV

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	Allied V	U214ACH2P	Allied Chemistry Practical-II	2	4	3	40	60	100
	Allied VI	U214ACH3	Allied Chemistry-III	4	4	3	25	75	100
IV	Non Major elective course - I	U21CH4NME2:1	Industrial Chemistry (NMEC- II A)	2	2	3	25	75	100
		U21CH3NME2:2	Basic Clinical Chemistry(NMEC-II B)						