

### SEETHALAKSHMI RAMASWAMI COLLEGE

(Autonomous)
Affiliated to Bharathidasan University
Tiruchirappalli
Accredited with A+ by NAAC (4th Cycle)



#### **SYLLABUS**

## Revised CBCS - OBE - BASED Curriculum Structure

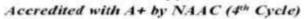


# PG AND RESEARCH DEPARTMENT OF CHEMISTRY PG PROGRAMME (2021 ONWARDS)



#### SEETHALAKSHMI RAMASWAMI COLLEGE

(Autonomous) Affiliated to Bharathidasan University Tiruchirappalli



M.Sc. CHEMISTRY

Revised CBCS -OBE -BASED Curriculum Structure

(For Students admitted from June 2021 onwards)



SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/ EXT	CIA	SE	TOTAL
	Core Course – I		Inorganic Chemistry - I	6	5	EXT	25	75	100
	Core Course – II		Organic Chemistry - I	6	5	EXT	25	75	100
	MBE – I		Chemistry of Biomolecules, Catalysis and Photokinetics	6	4	EXT	25	75	100
	Core Practical - I	Practical-I: Inorganic Mixture Analysis, Colorimetric		3	-	-	-	-	-
	Core Practical –		Estimation and Complex Preparation Practical-II:	3	-	-	-	-	-
I	II Quantitative Estimations of Mixture of Metal Ions		Quantitative Estimations of Mixture of Metal Ions						
	Core Practical - III		Practical-III: Organic Mixture Analysis and Single Stage		-	-	-	-	-
	Core Practical –		Preparation Practical-IV:		-	-	-	-	-
	IV		Organic Quantitative Analysis and Double Stage Preparation						
			Total	30	14	-	-	-	300

	Core Course – III	Organic Chemistry - II	6	5	EXT	25	75	100
	Core Course – IV	Physical Chemistry - I	6	5	EXT	25	75	100
	Core Practical - I Practical-I:		3	4	EXT	40	60	100
		Inorganic Mixture Analysis, Colorimetric Estimation	3					
	Core Practical –	ractical – and Complex Preparation		4	EXT	40	60	100
		Practical-II:						
TT	II	Quantitative Estimations of Mixture of Metal Ions						
II					l			
	Core Practical - III	Practical-III:	3	4	EXT	40	60	100
		Organic Mixture Analysis and Single Stage						
	Core Practical –	Preparation	3	4	EXT	40	60	100
		Practical-IV:						
	IV	Organic Quantitative Analysis and Double Stage						
		Preparation						
	NME*	Offered by other Departments	6	4	INT	25	75	100
		Total	30	30	-	-	-	700
	* Offered by the Department to	the students of other disciplines.						
	Core Course – V	Physical Chemistry - II	6	5	EXT	25	75	100
	Core Course – VI	Physical Methods in Chemistry - I	6	6	EXT	25	75	100
	Core Practical – V	Practical-V:	6	4	EXT	40	60	100
III		Non Electrical Experiments in Physical Chemistry						
111	Core Practical – VI	Practical-VI:	6	4	EXT	40	60	100
		Electrical Experiments in Physical Chemistry						
	MBE – II	Chemistry of Supramolecules and Natural Products	6	4	EXT	25	75	100
		Total	30	23	-	-	-	500

	Core Course – VII	Inorganic Chemistry - II	6	5	EXT	25	75	100
	Core Course – VIII	Physical Methods in Chemistry - II		6	EXT	25	75	100
IV	MBE – III	edicinal Chemistry		4	EXT	25	75	100
1 V	MBE – IV	Advanced techniques and Computers in Chemistry		4	EXT	25	75	100
		Project		4	EXT	20	80	100
		Total	30	23	•	-	•	500
		120	90	-	-	-	2000	

TOTAL DISTRIBUTION OF HOURS, CREDITS & MARKS FOR PG PROGRAMME						
SEMESTER	HOURS	CREDITS	TOTAL MARKS			
I	30	14	300			
II	30	30	700			
III	30	23	500			
IV	30	23	500			
TOTAL	120	90	2000			

# LIST OF MAJOR BASED ELECTIVE COURSES

SEM	GROUP	COURSE CODE	COURSE TITLE
I	I		(A) Chemistry of Biomolecules, Catalysis and Photokinetics (B) Applied Electrochemistry
III	II (Choose any one course)		(A) Chemistry of Supramolecules and Natural products (B) Green Chemistry
IV	III (Choose any two courses)		(A) Medicinal Chemistry (B) Fundamentals of Analytical Techniques, Sensors and Clinical Equipments (C) Advanced techniques and Computers in Chemistry (D) Chemistry of Nano science and Nano technology

#### NON MAJOR ELECTIVE COURSE OFFERED TO OTHER DEPARTMENTS

SEM	GROUP	COURSE CODE	COURSE TITLE
II	I		Agricultural and Industrial Chemistry

#### BEYOND CURRICULUM EXTRA COURSES OFFEREDLIST OF VALUE ADDED COURSES

SEM	COURSE	COURSE CODE	COURSE TITLE
I	I		Analytical Techniques in Chemistry
III	II		Advanced Topics in Chemistry

#### CERTIFICATE COURSES OFFERED TO OTHER DEPARTMENTS

#### Certificate course on

#### INDUSTRIAL CHEMISTRY

SEM	COURSE	COURSE CODE	COURSE TITLE
II	I		Agro Based Industries
IV	II		Chemistry of Materials