

Department of Chemistry

M.Sc. Chemistry Curriculum

(Applicable to the students admitted from AY: 2025 onwards)



School of Engineering and Sciences
SRM University AP, Andhra Pradesh

ABBREVIATIONS

AEC	Ability Enhancement Courses
VAC	Value Added Courses
SEC	Skill Enhancement Courses
FIC	Foundation & Interdisciplinary Courses
OE	Open Elective
RDIP	Research / Design / Industrial Practice / Project / Thesis / Internship
CE	Core Elective
CC	Core Course
SE	Stream Elective
TE	Technical Elective

SEMESTER - I							
S. No	Category	Sub- Category	Course Title	L	T/ D	P/Pr	C
1	SEC	S SEC	Statistics	3	1	0	4
2	Core	CC	Organic - 1	3	1	0	4
3	Core	CC	Inorganic - 1	3	1	0	4
4	Core	CC	Physical – 1	3	1	0	4
5	Core	CC	Introduction to Quantum Chemistry: Concepts and Applications	2	1	0	3
6	Core	CC	Inorganic Chemistry Lab	0	0	2	2
7	Core	CC	Physical Chemistry Lab	0	0	2	2
Semester Total				14	5	4	23

SEMESTER - II							
S. No	Category	Sub-Category	Course Title	L	T/ D	P/ Pr	C
1	SEC	S SEC	Introduction to R and Python	3	0	1	4
2	SEC	S SEC	Research Design and Methods	3	0	0	3
3	Core	CC	Organic Chemistry Lab	0	0	2	2
4	Core	CC	Organic – II	3	1	0	4
5	Core	CC	Inorganic – II	3	1	0	4
6	Core	CC	Physical – II	3	1	0	4
7	Core	CC	Analytical Chemistry – Principles, Instrumentation and Applications	2	1	0	3
Semester Total				17	4	3	24

SEMESTER - III							
S. No	Category	Sub- Category	Course Title	L	T/D	P/Pr	C
1	AEC	S AEC	Research seminar and Report writing	3	0	0	3
2	AEC	S AEC	Design thinking	2	0	0	2
3	Core	CC	Group Theory and Molecular Spectroscopy	2	1	0	3
4	Elective	CE	Core Elective	3	1	0	4
5	Elective	CE	Core Elective	3	1	0	4
6	Elective	CE	Core Elective	3	1	0	4
7	RDIP	RDIP	Summer Internship	0	0	2	2
Semester Total				16	4	2	22

SEMESTER - IV							
S. No	Category	Sub- Category	Course Title	L	T/D	P/Pr	C
1	RDIP	RDIP	Research Degree Project	0	0	14	14
Semester Total				0	0	14	14

Electives

S. No	Category	Sub-Category	Course Title	L	T/D	P/Pr	C
1	Elective	CE	Advanced Organic Chemistry-I (Organometallics and Chemistry of P/B/S/Si based reagent Chemistry)	3	1	0	4
2	Elective	CE	Retrosynthesis, Hetrocyclic Chemistry and Biopolymers	3	1	0	4
3	Elective	CE	Organic Spectroscopy	3	1	0	4
4	Elective	CE	Instrumental Methods of Analysis	3	1	0	4
5	Elective	CE	Industrial Chemistry	3	1	0	4
6	Elective	CE	Environmental and Electroanalytical Techniques	3	1	0	4
7	Elective	CE	Supramolecular Architectures to Molecular Machines: Fundamentals and Applications	3	1	0	4
8	Elective	CE	Advanced Solid State Chemistry	3	1	0	4
9	Elective	CE	Materials Synthesis and Charecterisation	3	1	0	4