

BSMS- Chemistry

SEMESTER - I (Common for all B.Tech Courses)

S.No	Course Code	Course	L	T	P	C
1	MA108T	Calculus	3	1.5	0	9
2	PH101T	Quantum Physics and Applications	2	1	0	6
3	CY101T	Fundamental Concepts and Applications of Chemistry	3	0	0	6
4	BB101T	Introduction to Modern biology	3	0	0	6
5	PH101L	Hands on Science Laboratory - I	0	0	3	3
6	CS101C	Computer Programming	3	0	3	9
7	HS101T	Design Thinking and Creativity	1	0	0	PP/ NP
8	NO107/ NO105/ NO 106/ NO 108	NSO/NSS/NCC/NCA	0	0	2	2
Total credit						41

Semester - II

S. No	Course Code	Course Name	L	T	P	C
1	MA109T	Linear Algebra and Differential Equations	3	1.5	0	9
2	CS101T	Data Structures and Algorithms	3	0	0	6
3	CS101L	Data Structures and Algorithms Laboratory	0	0	3	3
4	PH102T	Electricity and Magnetism	2	1	0	6
5	BB201T	Biomolecules	2	1	0	6
6	CY203T	States of Matter (1st Half)	3	0	0	3
7	CH201T	Organic Chemistry (2nd Half)	3	0	0	3
8	PH101L	Hands On Science Laboratory - II	0	0	3	3
9	NO107/ NO105/ NO 106/ NO 108	NSO/NSS/NCC/NCA	0	0	2	2
Total Credits						41

Semester III

S. No	Course Code	Course Name	L	T	P	C
1	HS201T	Economics	3	0	0	6
2	BB401T	Basics of Cell Biology and Genetics	3	0	0	6
3	CY202T	Inorganic Chemistry (1st Half)	3	0	0	3
4	CY204T	Physical Organic and Bioorganic Chemistry (2nd Half)	3	0	0	3
5	MA401T	Introduction to Probability Theory	3	1	0	9
6	PH201T	Waves, Oscillations & Optics	2	1	0	6
7	MA102L	Mathematics Laboratory	0	0	3	3

	Total credit						36
Semester - IV							
S. No	Course Code	Course Name	L	T	P	C	
1	CE301T	Environmental studies	3	0	0	6	
2	CY401T	Organic Reactions and Reagents	3	0	0	6	
3	CY411T	Quantum Chemistry	3	0	0	6	
4	CY402T	Molecular Energetics and Dynamics	3	0	0	6	
5		Institute elective -I	3	0	0	6	
6	CY301L	Chemistry laboratory-I	0	0	3	3	
	Total credit					33	
Semester V							
S. No	Course Code	Course Name	L	T	P	C	
1	CH512T	Transition Metals and Coordination Chemistry	3	0	0	6	
2	CH513T	Concepts and Mechanismsin organic chemistry	3	0	0	6	
3	CH503T	Molecular spectroscopy	3	0	0	6	
4	CH511T	Main group chemistry	3	0	0	6	
	CH401L	Chemistry laboratory-II	0	0	3	3	
5		Program Elective-I	2	1	0	3	
6		Program Elective-II	2	1	0	3	
	Total credit					33	
Semester VI							
S. No	Course Code	Course Name	L	T	P	C	
1	CH514T	Organometallic chemistry and catalysis	3	0	0	6	
2	CH515T	Instrumental Methodsfor Structure Determination	3	0	0	6	
3	CH402L	Chemistry laboratory-III	0	0	3	3	
4		Program Elective-III	2	1	0	3	
5		Program Elective-IV	2	1	0	6	
6		Institute Elective – II	3	0	0	6	
	Total credit					30	
Semester VII							
S. No	Course Code	Course Name	L	T	P	C	
1	CH516T	Conceptsin organic synthesis	3	0	0	6	
2		Program Elective V/ Minor Project	2	1	0	6	
3		HEART Elective-I	3	0	0	6	
5		Institute Elective – III	2	1	0	6	
6	CH501L	Chemistry laboratory-IV	0	0	3	3	
	Total credit					27	

Semester VIII						
S. No	Course Code	Course Name	L	T	P	C
1	CH401P	Program Elective VI/ Minor Project	2	1	0	6
2		HEART Elective-II	3	0	0	6
3		Institute Elective -IV	2	1	0	6
4		Institute Elective – V	2	1	0	6
	Total credit					24
Semester IX & X						
1		Independent Project				30
Semester IX & X						
1		Independent Project				30
Overall Credits Required (Minimum)						325