BSMS-Physics

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

S.No	C. Code	Course	L	T	P	C
1	MA 101	Calculus	3	1	0	8
2	PH 101	Quantum Physics and Applications	2	1	0	6
3	CH 102	Fundamental Concepts and Applications of Chemistry	3	0	0	6
4	BB 103	Introduction to Modern biology	3	0	0	6
5	PH 113	Hands on Science Laboratory - I	0	0	3	3
6	CS 101	Computer Programming	3	0	2	8
7	HS 106	Design Thinking and Creativity	1	0	0	PP/NP
8	NO107/ NO105/	NSO/NSS/NCC/NCA	0	0	2	2
		First Semester Total Credits				39

Semester - II

S. No	Course Code	Course Name	L	T	P	C
1	MA 102	Linear Algebra (1st Half)	3	1	0	4
2	MA 103	Differential Equations - I (2nd Half)	3	1	0	4
3	CS 201	Data Structures and Algorithms	3	0	0	6
4	CS 211	Data Structures and Algorithms Laboratory	0	0	3	3
5	PH 102	Electricity and Magnetism	2	1	0	6
6	BB 201	Biomolecules	2	1	0	6
7	CH 203	States of Matter (2nd Half)	3	0	0	3
8	CH 201	Organic Chemistry (1st Half)	3	0	0	3
9	CH 113	Hands On Science Laboratory - II	0	0	3	3
10	NO107/ NO105	NSO/NSS/NCC/NCA	0	0	2	2
		Total Credits				40

Semester III

S. No	Course Code	Course Name	L	T	P	C
1	HS 201	Economics	3	0	0	6
2	BB 301	Basics of Cell Biology and Genetics	3	0	0	6
3	CH 204	Physical Organic and Bioorganic Chemistry (1st Half)	3	0	0	3
4	CH 202	Inorganic Chemistry (2nd Half)	3	0	0	3
5	MA 209	Introduction to Probability Theory	3	1	0	8
6	PH 205	Waves, Oscillations & Optics	2	1	0	6
7	MA 223	Mathematics Laboratory	0	0	3	3
		Total Credits				35

Semester - IV

S. No	Course Code	Course Name	L	T	P	C
1	CE 301	Environmental Studies	3	0	0	6

2	PH 403	Experimental Techniques	2	1	0	6
3	PH 322	Mathematical Physics-I	2	1	0	6
4	CS 209	Artificial Intelligence	2	1	0	6
5	CS 214	Artificial Intelligence Lab	0	0	3	3
6	PH 212	General Physics Laboratory	0	0	3	3
		Total Credits				30

Semester V						
S.No	Course Code	Course Name	L	T	P	C
1	PH301T	Electrodynamics	2	1	0	6
2	PH302T	Classical Mechanics	2	1	0	6
3	PH303T	Quantum Mechanics - I	2	1	0	6
4	PH420T	Electronics	2	1	0	6
5	PH501T	Mathematical Physics - II	2	1	0	6
6	PH402L	Elcetronics Laboratory	0	0	3	3
		Total Credits				33

Semester VI						
S.No	Course Code	Course Name	L	T	P	C
1	PH 405	Quantum Mechanics - II	2	1	0	6
2	PH 304	Statistical Physics	2	1	0	6
3	PH 434	Condensed Matter Physics	2	1	0	6
4		Institute Elective-3/RnD Project-1				6
5		Program Elective-I				6
6		Program Elective-I				6
		Total Credits				36

Semester VII						
S.No	Course Code	Course Name	L	T	P	C
1	PH 502	Numerical Methods	2	1	0	6
2	PH 428	Nuclear and Particle Physics	2	1	0	6
3		Institute Elective-2				6
4		Program Elective-II				6
5		Advanced Physics Laboratory	0	0	3	3
		Semionar-I	0	0	4	4
		Total Credits				31

Semester VIII						
S.No	Course Code	Course Name	L	T	P	C
1	PH 425	Atomic and Molecular Physics	2	1	0	6
2		Institute Elective-4				6
3		Program Elective-III				6
4		Institute Elective-5/RnD Project-2				6

| | | Total Credits | 24 |
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Semester IX & X			
		Independent Project	60
		Total Credits	60
		Overal Credits Required (Minimum)	**328**

With the changes, the total program credit has increased from 321 to 328.