

SEMESTER I

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY1011	Basic Concepts of Inorganic Chemistry	3	1	0	0	6	10	P
2	CY1013	Mathematics-I	3	1	0	0	6	10	S
3	PH1010	Physics-I	3	1	0	0	6	10	S
4	BT1010	Life Sciences	3	0	0	0	6	9	S
5	PH1030	Physics Lab	0	0	0	3	1	4	S
6	GN1101	Life Skills I	0	0	0	0	4	4	GN
7	GNXXXX	NCC/NSO	0	0	0	0	2	2	GN
8	GNYYYY	Recreation-I	0	0	0	0	2	2	GN
9	ID1200	Ecology and Environment	2	0	0	0	0	2	GN
		Credits for Semester I	14	3	0	3	33	53	

L =Lecture, T =tutorial, E= extended tutorial, P = practical, O=outside classroom, C= credits in total, Cat = category

SEMESTER II

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY1020	Basic organic Chemistry	3	1	0	0	6	10	P
2	CY1022	Mathematics-II	3	1	0	0	6	10	S
3	PH 1020	Physics-II	3	1	0	0	6	10	S
4	CY1024/BT2030	Biochemistry	3	0	0	0	6	9	S
5	CY1026	Organic Laboratory -I	0	0	0	4	1	5	P
6	GN1101	Life Skills-II	0	0	0	0	4	4	GN
7	GNXXXX	NCC/NSO	0	0	0	0	2	2	GN
8	GNYYYY	Recreation-II	0	0	0	0	2	2	GN
		Credits for Semester II	12	3	0	4	33	52	

SEMESTER III

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY2011	Coordination and Bioinorganic Chemistry of Transition Metals	3	0	0	0	6	9	P
2	CY2013	Organic Chemistry of Multiple Bonds	3	0	0	0	6	9	P
3	CY2015	Thermodynamics	3	0	0	0	6	9	P
4	CY2017	Quantum Mechanics and Spectroscopy	3	1	0	0	6	10	P
5	CY2019	Inorganic Chemistry Laboratory-I	0	0	0	4	1	5	P
6	HSE	Humanities Elective-I	3	0	0	0	6	9	H
7	CY2021	Seminar	1	0	0	0	0	1	SE
		Credits for Semester III	16	1	0	4	31	52	

SEMESTER IV

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY2020	Organometallic Chemistry of Transition Metals	3	0	0	0	6	9	P
2	CY2022	Reactive Intermediates in Organic Chemistry	3	0	0	0	6	9	P
3	CY2024	Chemical Kinetics and Dynamics	3	0	0	0	6	9	P
4	CY2026	Solid State Chemistry	3	0	0	0	6	9	P
5	CY2028	Organic Laboratory-II	0	0	0	4	1	5	P
6	HSE	Humanities Elective-II	3	0	0	0	6	9	H
7	CY2030	Seminar	1	0	0	0	0	1	SE
		Credits for Semester IV	16	0	0	4	31	51	

SEMESTER V

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY3011	Chemistry of Main Group Elements	3	0	0	0	6	9	P
2	CY3013	Physical Organic Chemistry and Concerted Reactions	3	0	0	0	6	9	P
3	CY3015	Chemical Bonding and Spectroscopy	3	0	0	0	6	9	P
5	CY3017	Physical Chemistry Laboratory-I	0	0	0	4	1	5	P
6	HSE	Humanities Elective-III	3	0	0	0	6	9	H
7	FE-1	Free Elective-I	3	0	0	0	6	9	FE
8	CY 3019	Seminar	1	0	0	0	0	1	SE
		Credits for Semester V	16	0	0	4	31	51	

SEMESTER VI

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY3020	Advanced Coordination Chemistry	3	0	0	0	6	9	P
2	CY3022	Modern Methods and Strategies in Organic Synthesis	3	0	0	0	6	9	P
3	CY3024	Modern Methods in Analytical Chemistry	3	0	0	0	6	9	P
4	CY3026	Inorganic Chemistry Laboratory-II	0	0	0	4	1	5	P
5	CY3028	Physical Chemistry Laboratory-II	0	0	0	4	1	5	P
7	FE-2	Free Elective-II	3	0	0	0	6	9	FE
8	CY3030	Seminar	2	0	0	0	0	2	SE
9	DPE-1	Department Elective-I	3	0	0	0	6	9	DPE
		Credits for Semester VI	17	0	0	8	32	57	

1	CY3032	Summer Internship	0 credit						
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SEMESTER VII

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	DFE2	Department Elective-2	3	0	0	0	6	9	DPE
2	DFE-3	Department Elective-3	3	0	0	0	6	9	DFE
3	FE-3	Free Elective-3	3	0	0	0	6	9	FE
4	CY-UGRP1 OR DPE-4	Project	0	0	0	9	0	9	PR
		OR Department Elective-4	3	0	0	0	6	9	DPE
Credits for Semester VII			9/12	0	0	9/0	18/24	36	

SEMESTER VIII

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY4020	Spectroscopy of Inorganic and Organometallic Compounds	3	0	0	0	6	9	P
2	CY4022	Modern Spectroscopic Methods for Structural Elucidation	3	0	0	0	6	9	P
3	CY4024	Advanced Topics in Quantum Mechanics and Applications	3	0	0	0	6	9	P
4	FE-4	Free Elective-4	3	0	0	0	6	9	FE
5	CY UGRP2	Project	0	0	0	9	0	9	PR
	DPE-5	Department Elective-5	3	0	0	0	6	9	DPE
6	CY4026	Computational Chemistry Laboratory	0	0	0	4	1	5	C
		Credits for Semester VIII	12/15	0	0	13/4	25/31	50	

SEMESTER IX

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	DPE-6	Department Elective-6	3	0	0	0	6	9	DFE
2	DPE-7	Department Elective-7	3	0	0	0	6	9	DFE
3	FE-5	Free Elective-5	3	0	0	0	6	9	FE
4	DPE-8	Department Elective-8	3	0	0	0	6	9	DFE
5	CYB 5011	Project-I	0	0	0	0	18	18	PR
		Credits for Semester IX	12	0	0	0	42	54	

1	CY 5013	Summer Project	22
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SEMESTER X

S No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CYB 5020	Project-II	0	0	0	0	45	45	PR
		Credits for Semester X	0	0	0	0	45	45	

**BS in Chemistry with upgrade option to MS
SEMESTER CREDITS**

Total Credits for the BS program = 402

SEMESTER	I	II	III	IV	V	VI	VII	VIII	Total
Credits	53	52	52	51	51	57	36	50	402

Upgrade to BS-MS program = 523

SEMESTER	Summer	IX	X	Total
Credits	22	54	45	402+121= 523

Summary of Credit Distribution in Categories for BS

Year	P	S	C	HSE	GN	FE+DPE+PR
I	25 (6.2 %)	62 (15.4%)			18 (4.5 %)	
II	83 (20.6 %)			18 (4.5 %)		
III	69 (17.2 %)		5 (1.2 %)	9 (2.2 %)		27 (6.7 %)
IV	32 (8.0 %)					54 (13.4 %)
	209 (52%)	62 (15.4%)	5 (1.2 %)	27 (6.7%)	18 (4.5 %)	81 (20.1 %)

Summary of Credit Distribution in Categories for BS-MS

Year	P	S	C	HSE	GN	DPE+PR
V						121 (23.1 %)
						121 (23.1 %)

Electives (BS MS) : 54.9%

Un-allotted Credits (P/S/C/H): 56; Electives (17.9+ 4.5+ 6.7+ 1.2+ 9.5+ 1.2) : 41 %