

Core Module:**Program Structure****[Scheme 2021-24]**

Semester	Course/Subject Code	Course Name	Course Type	Teaching Scheme				Lecture Type
				L	T	P	Credit	PP- THEORY,PR- PRACTICAL,TUT- TUTORIAL
Sem I	B010101T	Mathematical Physics & Newtonian Mechanics	Major	4	0	0	4	PP
Sem I	B010102P	Mechanical Properties of Matter	Major	0	0	4	2	PR
Sem I	B020101T	Fundamentals of Chemistry	Major	4	0	0	4	PP
Sem I	B020102P	Quantitative Analysis	Major	0	0	4	2	PR
Sem I	B030101T	Differential Calculus & Integral Calculus	Major	4	0	0	4	PP
Sem I	B030102P	Calculus Lab	Major	0	0	4	2	PR
Sem I		Vocational Course (Subject will be selected from univ. Track)	Vocational Course- Minor	3	0	0	3	PP
Sem I	Z010101T	Food, Nutrition and Hygiene	Co-Curricular - Minor	2	0	0	2	PP
Total credit=23								
Sem II	B010201T	Thermal Physics & Semiconductor Devices	Major	4	0	0	4	PP
Sem II	B010202P	Thermal Properties of Matter & Electronic Circuits	Major	0	0	4	2	PR
Sem II	B020201T	Bioorganic and Medicinal Chemistry	Major	4	0	0	4	PP
Sem II	B020202P	Biochemical Analysis (Practical)	Major	0	0	4	2	PR
Sem II	B030201T	Matrices and Differential Equation & Geometry	Major	6	0	0	6	PP
Sem-II		Language Course [OR can be offered by University core]	Minor	4	0	0	4	PP
Sem II		Vocational Course (Subject will be selected from univ. Track)	Vocational Course- Minor	3	0	0	3	PP

Sem II	Z020201	First Aid and Health	Co-Curricular - Minor	2	0	0	2	PP
Total credit=27								
Sem III	B010301T	Electromagnetic Theory & Modern Optics	Major	4	0	0	4	PP
Sem III	B010302P	Demonstrative Aspects of Electricity & Magnetism	Major	0	0	4	2	PR
Sem III	B020301T	Chemical Dynamics & Coordination	Major	4	0	0	4	PP
Sem III	B020302P	Physical Analysis	Major	0	0	4	2	PR
Sem III	B030301T	Algebra &Mathematical Methods	Major	6	0	0	6	PP
Sem III		Vocational Course (Subject will be selected from univ. Track)	Vocational Course-Minor	3	0	0	3	PP
Sem III	Z040401	Physical Education and Yoga	Co-Curricular - Minor	2	0	0	2	PP
Total credit=23								
Sem IV	B010401T	Perspectives of Modern Physics & Basic Electronics	Major	4	0	0	4	PP
Sem IV	B010402P	Basic Electronics Instrumentation	Major	0	0	4	2	PR
Sem IV	B020401T	Quantum Mechanics and Analytical Techniques	Major	4	0	0	4	PP
Sem IV	B020402P	Instrumental Analysis	Major	0	0	4	2	PR
Sem IV	B030401T	Differential Equations and Mechanics	Major	6	0	0	6	PP
Sem IV		Environment Courses [OR can be offered by University core]	Minor -	4	0	0	4	PP
Sem IV		Vocational Course (Subject will be selected from univ. Track)	Vocational Course-Minor	3	0	0	3	PP
Sem IV	Z030301	Human values and Environment studies	Co-Curricular - Minor	2	0	0	2	PP
Total credit=27								

[Group-1: B.Sc. in Physics and Chemistry Subjects in III year]

Semester	Course/Subject Code	Course Name	Course Type	Teaching Scheme				Lecture Type
			Major	L	T	P	Credit	PP- THEORY,PR- PRACTICAL,TUT- TUTORIAL
Sem V	B010501T	Classical & Statistical Mechanics	Major	4	0	0	4	PP
Sem V	B010502T	Quantum Mechanics & Spectroscopy	Major	4	0	0	4	PP

Sem V	B010503P	Demonstrative Aspects of Optics & Lasers	Major	0	0	4	2	PR
Sem V	B020501T	Organic Synthesis-A	Major	4	0	0	4	PP
Sem V	B020503P	Qualitative Analysis	Major	0	0	4	2	PR
Sem V	B020502T	Rearrangements and Chemistry of Group Elements	Major	4	0	0	4	PP
Sem V	Z050501	Analytic ability & Digital awareness	Co-Curricular - Minor	2	0	0	2	PP
Sem V	B999598R	Research Project	PBL	0	0	0	3	PR
Total credit=25								
Sem VI	B010602T	Analog & Digital Principles & Applications	Major	4	0	0	4	PP
Sem VI	B010601T	Solid State & Nuclear Physics	Major	4	0	0	4	PP
Sem VI	B010603P	Analog & Digital Circuits	Major	0	0	4	2	PR
Sem VI	B020601T	Organic Synthesis-B	Major	4	0	0	4	PP
Sem VI	B020603P	Analytical Methods	Major	0	0	4	2	PR
Sem VI	B020602T	Chemical Energetics and Radiochemistry	Major	4	0	0	4	PP
Sem VI	Z060601	Communication skills & Personality development	Co-Curricular - Minor	2	0	0	2	PP
Sem VI	B999699R	Research Project	PBL	0	0	0	3	PR
Total credit=25								
Total credits for BSc General [in Physics and Chemistry] =150								

[Group-2: B.Sc. in Chemistry and Mathematics Subjects in III year]

Semester	Course/Subject Code	Course Name	Course Type	Teaching Scheme				Lecture Type
				L	T	P	Credit	PP- THEORY,PR- PRACTICAL,TUT- TUTORIAL

Sem V	B020501T	Organic Synthesis-A	Major	4	0	0	4	PP
Sem V	B020503P	Qualitative Analysis	Major	0	0	4	2	PR
Sem V	B020502T	Rearrangements and Chemistry of Group Elements	Major	4	0	0	4	PP
Sem V	B030501T	Group and Ring Theory & Linear Algebra	Major	5	0	0	5	PP
Sem V	B030502T	Number Theory and Game Theory	Major	5	0	0	5	PP
Sem V	Z050501	Analytic Ability and Digital Awareness	Co-Curricular	2	0	0	2	PP
Sem V	B999598R	Research Project	PBL	0	0	6	3	PR
TOTAL CREDIT							25	
	Course Code	Course	Major	L	T	P	C	PP
Sem VI	B020601T	Organic Synthesis-B	Major	4	0	0	4	PP
Sem VI	B020603P	Analytical Methods	Major	0	0	4	2	PR
Sem VI	B020602T	Chemical Energetics and Radiochemistry	Major	4	0	0	4	PP
Sem VI	B030601T	Metric Spaces & Complex Analysis	Major	4	0	0	4	PP
Sem VI	B030602T	Numerical Analysis & Operation Research	Major	4	0	0	4	PP
Sem VI	B030603P	Numerical Analysis Lab (Practical)	Major	0	0	4	2	PR
Sem VI	Z060601	Communication Skills and Personality Development	Co-Curricular	2	0	0	2	PP
Sem VI	B999699R	Research Project	PBL	0	0	6	3	PR
TOTAL CREDIT							25	
Total credits for B.Sc. General [in Chemistry and Mathematics] =150								

Group-3: B.Sc. in Mathematics and Physics Subjects in III year]

Semester	Course/Subject Code	Course Name	Course Type	Teaching Scheme				Lecture Type
			Major	L	T	P	Credit	PP- THEORY,PR-PRACTICAL,TUT-TUTORIAL

Sem V	B010501T	Classical & Statistical Mechanics	Major	4	0	0	4	PP
Sem V	B010502T	Quantum Mechanics & Spectroscopy	Major	4	0	0	4	PP
Sem V	B010503P	Demonstrative Aspects of Optics & Lasers	Major	0	0	4	2	PR
Sem V	B030501T	Group and Ring Theory & Linear Algebra	Major	5	0	0	5	PP
Sem V	B030502T	Number Theory and Game Theory	Major	5	0	0	5	PP
Sem V	Z050501	Analytic ability & Digital awareness	Co-Curricular - Minor	2	0	0	2	PP
Sem V	B999598R	Research Project	PBL	0	0	0	3	PR
Total credit=25								
Sem VI	B010602T	Analog & Digital Principles & Applications	Major	4	0	0	4	PP
Sem VI	B010601T	Solid State & Nuclear Physics	Major	4	0	0	4	PP
Sem VI	B010603P	Analog & Digital Circuits	Major	0	0	4	2	PR
Sem VI	B030601T	Metric Spaces & Complex Analysis	Major	4	0	0	4	PP
Sem VI	B030602T	Numerical Analysis & Operation Research	Major	4	0	0	4	PP
Sem VI	B030603P	Numerical Analysis Lab (Practical)	Major	0	0	4	2	PR
Sem VI	Z060601	Communication skills & Personality development	Co-Curricular - Minor	2	0	0	2	PP
Sem VI	B999699R	Research Project	PBL	0	0	0	3	PR
Total credit=25								
Total credits for BSc General [in Mathematics and Physics] =150								