Program structure with credits for the Three Year B.Sc. (General/Honours) Degree Program

DSC: Discipline Specific Core where DSC 1A, DSC 2A and DSC 3A denote three different subjects. Students should choose any one group consisting of three subjects

- Group 1 : Physics, Chemistry, Mathematics
- Group 2 : Physics, Botany, Mathematics
- Group 3 : Physics, Zoology, Mathematics
- Group 4 : Physics, Chemistry, Botany
- Group 5 : Physics, Chemistry, Zoology
- Group 6 : Chemistry, Botany, Mathematics
- Group 7 : Chemistry, Zoology, Mathematics
- Group 8 : Chemistry, Botany, Zoology
- Group 9 : Botany, Physics, Zoology

- Students should choose the core courses given above at the time of admission. In addition, it is also mandatory for students to take an Ability Enhancement Core Course (AECC) and a GenericElective (GE).

B. Sc. Semester I

GROUP	DSC	CODE	COURSES	CREDITS	TOTAL
GROUP 1: PHYSICS, CHEMISTRY, MATHEMATICS					
1	1A	PYC101	Mathematical Methods and Mechanics Electrical Circuit Theory	4+2	6
	2A	CHC101	Inorganic Chemistry and Organic Chemistry	4+2	6
	3A	MTC101:	Calculus and Numerical Methods	4+2	6
OR					
GROUP 2: PHYSICS, BOTANY, MATHEMATICS					
2	1A	PYC101	Mathematical Methods and Mechanics Electrical Circuit Theory	4+2	6
	2A	BOC101	Biodiversity I (Microbes, Algae, Fungi and Bryophytes)	4+2	6

	3A	MTC101:	Calculus and Numerical Methods	4+2	6
OR					
GROUP 3 : PHYSICS, ZOOLGY, MATHEMATICS					
3	1A	PYC101	Mathematical Methods and Mechanics Electrical Circuit Theory	4+2	6
	2A	ZOC101	Diversity of Non-Chordates & Cell Biology	4+2	6
	3A	MTC101:	Calculus and Numerical Methods	4+2	6
OR					
GROUP 4: PHYSICS, CHEMISTRY, BOTANY					
4	1A	PYC101	Mathematical Methods and Mechanics Electrical Circuit Theory	4+2	6
	2A	CHC101	Inorganic Chemistry and Organic Chemistry	4+2	6
	3A	BOC101	Biodiversity I (Microbes, Algae, Fungi and Bryophytes)	4+2	6
OR					
GROUP 5: PHYSICS, CHEMISTRY, ZOOLOGY					
5	1A	PYC101	Mathematical Methods and Mechanics Electrical Circuit Theory	4+2	6
	2A	CHC101	Inorganic Chemistry and Organic Chemistry	4+2	6
	3A	ZOC101	Diversity of Non-Chordates & Cell Biology	4+2	6
OR					
GROUP 9: BOTANY, PHYSICS, ZOOLOGY					
9	1A	BOC101	Biodiversity I (Microbes, Algae, Fungi and Bryophytes)	4+2	6
	2A	PYC101	Mathematical Methods and Mechanics Electrical Circuit Theory	4+2	6
	3A	ZOC101	Diversity of Non-Chordates & Cell Biology	4+2	6
AND					
AECC 1 (Any one)			Environmental Studies OR	4	4
			Spoken English /Hindi / Konkani		

AND				
GE 1 (Any one)	GE-01	Probability and Statistics	4	4
	PYG101	Basic Physics		
	ENG101	Literature and Cinema		
	HNG101	Jansanchar Madhyam: Mudrit Madhyam		
	KOG101	Vevharantli Konkani Bhas		
	HSG101	Goan Heritage		
	PSG101	Child Psychology		
	POG 101	Contemporary Issues in India		
	ECO GE1	Entrepreneurship Development -I		

B. Sc. Semester II

GROUP	DSC	CODE	COURSES	CREDITS	TOTAL
GROUP 1: PHYSICS, CHEMISTRY, MATHEMATICS					
1	1B	PYC102	Heat and Thermodynamics Properties of Matter and Acoustics	4+2	6
	2B	CHC102	Physical Chemistry and Organic Chemistry	4+2	6
	3B	MTC102	Matrices and Linear Algebra	4+2	6
OR					
GROUP 2: PHYSICS, BOTANY, MATHEMATICS					
2	1B	PYC102	Heat and Thermodynamics Properties of Matter and Acoustics	4+2	6
	2B	BOC102	Biodiversity II (Vascular Plants)	4+2	6
	3B	MTC102	Matrices and Linear Algebra	4+2	6
OR					
GROUP 3: PHYSICS, ZOOLOGY, MATHEMATICS					
3	1B	PYC102	Heat and Thermodynamics Properties of Matter and Acoustics	4+2	6
	2B	ZOC102	Diversity of Chordates and Genetics	4+2	6
	3B	MTC102	Matrices and Linear Algebra	4+2	6

OR					
GROUP 4: PHYSICS, CHEMISTRY, BOTANY					
4	1B	PYC102	Heat and Thermodynamics Properties of Matter and Acoustics	4+2	6
	2B	CHC102	Physical Chemistry and Organic Chemistry	4+2	6
	3B	BOC102	Biodiversity II (Vascular Plants)	4+2	6
OR					
GROUP 5: PHYSICS, CHEMISTRY, ZOOLOGY					
5	1B	PYC102	Heat and Thermodynamics Properties of Matter and Acoustics	4+2	6
	2B	CHC102	Physical Chemistry and Organic Chemistry	4+2	6
	3B	ZOC102	Diversity of Chordates and Genetics	4+2	6
OR					
GROUP 9: BOTANY, PHYSICS, ZOOLOGY					
9	1B	BOC102	Biodiversity II (Vascular Plants)	4+2	6
	2B	PYC102	Heat and Thermodynamics Properties of Matter and Acoustics	4+2	6
	3B	ZOC102	Diversity of Chordates and Genetics	4+2	6
AND					
AECC 2 (Any one)			Environmental Studies OR	4	4
			Spoken English /Hindi / Konkani		
AND					
GE 2 (Any one)		GE-02	Numerical Computations	4	4
		PYG102	Optics and Instrumentation		
		KOG102	Sampark Madhyamanchi konkani		
		POG102	MK Gandhi's Political and Economic Thought		
		ECOGE2	Entrepreneurship Development II		

B. Sc. Semester III

GROUP	DSC	CODE	COURSES	CREDITS	TOTAL
GROUP 1: PHYSICS, CHEMISTRY, MATHEMATICS					
1	1C	PYC103	Waves and Oscillation Electronics	4+2	6
	2C	CHC103	Physical Chemistry and Organic Chemistry	4+2	6
	3C	MTC103	Ordinary Differential Equations and Discrete Mathematics	4+2	6
OR					
GROUP 2: PHYSICS, BOTANY, MATHEMATICS					
2	1C	PYC103	Waves and Oscillation Electronics	4+2	6
	2C	BOC103	Plant Anatomy and Embryology	4+2	6
	3C	MTC103	Ordinary Differential Equations and Discrete Mathematics	4+2	6
OR					
GROUP 3: PHYSICS, ZOOLOGY, MATHEMATICS					
3	1C	PYC103	Waves and Oscillation Electronics	4+2	6
	2C	ZOC103	Anatomy of Animal Body Systems	4+2	6
	3C	MTC103	Ordinary Differential Equations and Discrete Mathematics	4+2	6
OR					
GROUP 4: PHYSICS, CHEMISTRY, BOTANY					
4	1C	PYC103	Waves and Oscillation Electronics	4+2	6
	2C	CHC103	Physical Chemistry and Organic Chemistry	4+2	6
	3C	BOC103	Plant Anatomy and Embryology	4+2	6
OR					
GROUP 5: PHYSICS, CHEMISTRY, ZOOLOGY					
5	1C	PYC103	Waves and Oscillation Electronics	4+2	6

	2C	CHC103	Physical Chemistry and Organic Chemistry	4+2	6
	3C	ZOC103	Anatomy of Animal Body Systems	4+2	6
OR					
GROUP 9: BOTANY, PHYSICS, ZOOLOGY					
9	1C	BOC103	Plant Anatomy and Embryology	4+2	6
	2C	PYC103	Waves and Oscillation Electronics	4+2	6
	3C	ZOC103	Anatomy of Animal Body Systems	4+2	6
AND					
SEC1 (ANY ONE)		CHS101	Natural Resources and Analysis	4	4
		ZOS 101	Aquarium Fish Keeping		
		BOS101	Floriculture		
		SEC-01	Statistical Methods		
		PYS 101	Network Analysis		

B. Sc. Semester IV

GROUP	DSC	CODE	COURSES	CREDITS	TOTAL
GROUP 1: PHYSICS, CHEMISTRY, MATHEMATICS					
1	1D	PYC104	Optics and Modern Physics	4+2	6
	2D	CHC104	Physical Chemistry and Inorganic Chemistry	4+2	6
	3D	MTC104	Analysis and Operations Research	4+2	6
OR					
GROUP 2: PHYSICS, BOTANY, MATHEMATIC					
2	1D	PYC104	Optics and Modern Physics	4+2	6
	2D	BOC104	Plant Physiology	4+2	6
	3D	MTC104	Analysis and Operations Research	4+2	6

OR					
GROUP 3: PHYSICS, ZOOLOGY, MATHEMATICS					
3	1D	PYC104	Optics and Modern Physics	4+2	6
	2D	ZOC104	Animal Physiology and Biochemistry	4+2	6
	3D	MTC104	Analysis and Operations Research	4+2	6
OR					
GROUP 4: PHYSICS, CHEMISTRY, BOTANY					
4	1D	PYC104	Optics and Modern Physics	4+2	6
	2D	CHC104	Physical Chemistry and Inorganic Chemistry	4+2	6
	3D	BOC104	Plant Physiology	4+2	6
OR					
GROUP 5: PHYSICS, CHEMISTRY, ZOOLOGY					
5	1D	PYC104	Optics and Modern Physics	4+2	6
	2D	CHC104	Physical Chemistry and Inorganic Chemistry	4+2	6
	3D	ZOC104	Animal Physiology and Biochemistry	4+2	6
OR					
GROUP 9: BOTANY, PHYSICS, ZOOLOGY					
9	1D	BOC104	Plant Physiology	4+2	6
	2D	PYC104	Optics and Modern Physics	4+2	6
	3D	ZOC104	Animal Physiology and Biochemistry	4+2	6
AND					
SEC2 (ANY ONE)		CHS102	Chemistry of Cosmetics and Perfumes	4	4
		ZOS 102	Wildlife and Eco-tourism		
		BOS102	Herbal Technology		
		SEC-02	Analytical Geometry		
		PYS 102	Electrical and Electronic Instrumentation		

B.Sc.Semester V

Sr. No.	Subjects	Credits	Total
1	C.C: DSC 1 A	4+2	**6**
2	C.C: DSC 2 A	4+2	**6**
3	C.C: DSC 3 A	4+2	**6**
4	**DSE**	3+1	**4**
5	**DSE**	3+1	**4**
	Total		**26 credits**

B.Sc.Semester VI

Sr. No.	Subjects	Credits	
1	C.C: DSC 1 B*	4+2	**6**
2	C.C: DSC 2 B*	4+2	**6**
3	C.C: DSC 3 B*	4+2	**6**
4	**DSE**	3+1	**4**
	DSP : Project	4	**4**
	Total		**26 credits**

Semester	**V**		**VI**	
Paper	**Code**	**Name**	**Code**	**Name**
DSC	PYC105	Section 1: Classical Mechanics Section 2: Thermal Physics	PYC108	Atomic and Molecular Physics
	PYC106	Analog and Digital Electronics	PYC109	Solid State Devices and Instrumentation
	PYC107	Mathematical Physics andElectromagnetic Theory I	PYC110	Electromagnetic Theory II and Theory of Relativity
DSE	PYD101	Quantum Mechanics	PYD106	Nuclear Physics
	PYD103	Solid State Physics		
			PYD109	**PROJECT**