

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 Generic Elective (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, ZOOLOGY, 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 6: CHEMISTRY, BOTANY, MATHEMATICS					
6	1A	CHC101	Inorganic Chemistry and Organic Chemistry	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 7: CHEMISTRY, ZOOLOGY, MATHEMATICS					
7	1A	CHC101	Inorganic Chemistry and Organic Chemistry	4+2	6
	2A	ZOC101	Diversity of Non-Chordates & Cell Biology	4+2	6
	3A	MTC101:	Calculus and Numerical Methods	4+2	6
AND					
AECC 1 (Any one)			Environmental Studies OR	4	4
		ENA101	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 6: CHEMISTRY, BIOLOGY, MATHEMATICS					
6	1B	CHC102	Physical Chemistry and Organic Chemistry	4+2	6
	2B	BOC102	Biodiversity II (Vascular Plants)	4+2	6
	3B	MTC102	Matrices and Linear Algebra	4+2	6
OR					
GROUP 7: CHEMISTRY, ZOOLOGY, MATHEMATICS					
7	1B	CHC102	Physical Chemistry and Organic Chemistry	4+2	6

	2B	ZOC102	Diversity of Chordates and Genetics	4+2	6
	3B	MTC102	Matrices and Linear Algebra	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		
	ENG102		Culture Studies through Films		
	HNG102		Jansanchar Madhyam: Electronic Madhyam		
	KOG102		Sampark Madhyamanchi Konkani Bhas		
	HSG106		Goa Since Liberation (1962-2012)		
	PSG102		Psychology of Adolescence		
	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		
	2C	ZOC103	Anatomy of Animal Body Systems		
	3C	MTC103	Ordinary Differential Equations and Discrete Mathematics		
OR					
GROUP 6: CHEMISTRY, BOTANY, MATHEMATICS					
6	1C	CHC103	Physical Chemistry and Organic Chemistry	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 7: CHEMISTRY, ZOOLOGY, MATHEMATICS					
7	1C	CHC103	Physical Chemistry and Organic Chemistry	4+2	6
	2C	ZOC103	Anatomy of Animal Body Systems	4+2	6
	3C	MTC103	Ordinary Differential Equations and Discrete Mathematics	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, MATHEMATICS					
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 6 : CHEMISTRY, BOTANY, MATHEMATICS					
6	1D	CHC104	Physical Chemistry and Inorganic Chemistry	4+2	6
	2D	BOC104	Plant Physiology	4+2	6
	3D	MTC104	Analysis and Operations Research	4+2	6
OR					
GROUP 7: CHEMISTRY, ZOOLOGY, MATHEMATICS					
7	1D	CHC104	Physical Chemistry and Inorganic Chemistry	4+2	6
	2D	ZOC104	Animal Physiology and Biochemistry	4+2	6
	3D	MTC104	Analysis and Operations Research	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	MTC105	Algebra	MTC108	Differential Equations II
	MTC106	Analysis II	MTC109	Complex Analysis
	MTC107	Calculus of 2 and 3 Variables	MTC110	Metric Spaces
DSE	MTE101	Foundations of Mathematics	MTE103	Number Theory
	MTE102	Combinatorics	MTE104	Operations Research II