

Bachelor of Technology in Textile Technology

Department of Textile and Fibre Engineering

The overall Credit Structure

Course Category	Credits
Institute Core Courses	
Basic Sciences (BS)	22
Engineering Arts and Science (EAS)	18
Humanities and Social Sciences (HuSS)	15
Programme-linked Courses	12
Departmental Courses	
Departmental Core	52
Departmental Electives	16
Open Category Courses	10
Total Graded Credit requirement	145
Non Graded Units	15

Institute Core : Basic Sciences

CML100	Introduction to Chemistry	3	0	0	3
CMP100	Chemistry Laboratory	0	0	4	2
MTL100	Calculus	3	1	0	4
MTL101	Linear Algebra and Differential Equations	3	1	0	4
PYL100	Electromagnetic Waves and Quantum Mechanics	3	0	0	3
PYP100	Physics Laboratory	0	0	4	2
SBL100	Introductory Biology for Engineers	3	0	2	4
Total Credits					22

Institute Core: Engineering Arts and Sciences

APL100	Engineering Mechanics	3	1	0	4
COL100	Introduction to Computer Science	3	0	2	4
CVL100	Environmental Science	2	0	0	2
ELL100	Introduction to Electrical Engineering	3	0	2	4
MCP100	Introduction to Engineering Visualization	0	0	4	2
MCP101	Product Realization through Manufacturing	0	0	4	2
Total Credits					18

Programme-Linked Basic/Engineering Arts/Sciences Core

APL102	Introduction to Materials Science and Engineering	3	0	2	4
APL103	Experimental Methods	3	0	2	4
APL105	Mechanics of Solids and Fluids	3	1	0	4
Total Credits					12

Humanities and Social Sciences

Courses from Humanities, Social Sciences and Management offered under this category					15
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Departmental Core

TXL130	Polymer Chemistry	3	0	0	3
TXL111	Textile Fibres	2	0	2	3
TXL211	Structure and Physical Properties of Fibres	3	0	0	3
TXL212	Manufactured Fibre Technology	3	0	0	3
TXP212	Manufactured Fibre Technology Lab	0	0	2	1
TXL221	Yarn Manufacture-I	3	0	0	3
TXP221	Yarn Manufacture Laboratory-I	0	0	2	1
TXL222	Yarn Manufacture-II	3	0	0	3

TXP222	Yarn Manufacture Laboratory-II	0	0	2	1
TXL231	Fabric Manufacture-I	3	0	0	3
TXP231	Fabric Manufacture Laboratory-I	0	0	2	1
TXL232	Fabric Manufacture-II	3	0	0	3
TXP232	Fabric Manufacture Laboratory-II	0	0	2	1
TXL241	Technology of Textile Preparation & Finishing	3	0	0	3
TXP241	Technology of Textile Preparation & Finishing Lab	0	0	3	1.5
TXL242	Technology of Textile Coloration	3	0	0	3
TXP242	Technology of Textile Coloration Lab	0	0	3	1.5
TXL361	Evaluation of Textile Materials	3	0	0	3
TXP361	Evaluation of Textiles Lab	0	0	2	1
TXL371	Theory of Textile Structures	3	1	0	4
TXL372	Speciality Yarns and Fabrics	2	0	0	2
TXD401	Major Project Part-I	0	0	8	4
Total Credits					52

Departmental Electives

TXD301	Mini Project	0	0	6	3
TXR301	Professional Practices	0	1	2	2
TXS301	Independent Studies	0	3	0	3
TXL321	Multi and Long Fibre Spinning	3	0	0	3
TXL331	Woven Textile Design	3	0	0	3
TXL381	Costing and its Application in Textiles	3	1	0	4
TXD402	Major Project Part-II	0	0	16	8
TXL700	Modelling and Simulation in Fibrous Assemblies	2	0	2	3
TXL710	High Performance & Specialty. Fiber	3	0	0	3
TXL719	Functional & Smart Textiles	3	0	0	3
TXL724	Textured Yarn Technology	3	0	0	3
TXL734	Nonwoven Processes and Products	3	0	0	3
TXL740	Science & App. of Nanotechnology in Textiles	3	0	0	3
TXL741	Environment Management in Textile and Allied Industries	3	0	0	3
TXL750	Science of Clothing Comfort	3	0	0	3
TXL752	Design of Functional Clothing	3	0	0	3
TXL773	Medical Textiles	3	0	0	3
TXL774	Process Control in Yarn & Fabric Manufacturing	3	0	0	3
TXL775	Technical Textiles	3	0	0	3
TXL776	Design & Manuf. of Text. Reinforced Composites	3	0	0	3
TXL777	Product Design and Development	3	0	0	3
TXL781	Project Appraisal and Finance	3	0	0	3
TXL782	Production and Operations Management in Textile Industry	3	0	0	3
TXL783	Design of Experiments and Statistical Techniques	3	0	0	3
TXV701	Process Cont. and Econ. in Manmade Fibre Prod.	1	0	0	1
TXV702	Management of Textile Business	1	0	0	1
TXV703	Special Module in Textile Technology	1	0	0	1
TXV704	Special Module in Yarn Manufacture	1	0	0	1
TXV705	Special Module in Fabric Manufacture	1	0	0	1
TXV706	Special Module in Fibre Science	1	0	0	1
TXV707	Special Module in Textile Chemical Processing	1	0	0	1

Semester	Course-1	Course-2	Course-3	Course-4	Course-5	Course-6	Course-7	Course-8	Course-9	L	T	P	Credits	Non-Graded Units	Contact Hours
I	ELL100 Introduction to Electrical Engineering	MCP100 Introduction to Engineering Visualization	PYL100 Electromagnetic Waves and Quantum Mechanics	MTL100 Calculus	PYP100 Physics Laboratory	MCP101 Product Realization through Manufacturing	NIN100 Introduction to Engineering (Non-graded)	NEI100 Professional Ethics and Social Responsibility-1 (Non-graded)	NLI100 Language and Writing Skills-1 (Non-Graded)	9.0	1	14	17.0	2.5	29.0
	APL100 Engineering Mechanics	COL100 Introduction to Computer Science	CML100 Introduction to Chemistry	MTL101 Linear Algebra and Differential Equations	CMP100 Chemistry Laboratory			NEI101 Professional Ethics and Social Responsibility-2 (Non-graded)	NLI101 Language and Writing Skills-2 (Non-Graded)						
II	3 1 0 4	3 0 2 4	3 0 0 3	3 1 0 4	0 0 4 2			0 0 1 0.5	0 0 2 1	12	2	6	17.0	1.5	23.0
Note: Courses 1-6 above are attended in the given order by half of all first year students. The other half of First year students attend the Courses 1-6 of II semester first.															
III	APL102 Introduction to Materials Science and Engineering	TXL111 Textile Fibres	TXL130 Polymer Chemistry	APL103 Experimental Methods	CVL100 Environmental Science	HUL2XX	TXN101 Introduction to Textile Technology (Non-graded)								
	3 0 2 4	2 0 2 3	3 0 0 3	3 0 2 4	2 0 0 2	3 1 0 4	0 0 2 1			16.0	1	6	20.0	1	25.0
IV	TXL211 Structure and Physical Properties of Fibres	TXL231 Fabric Manufacture – I	TXL241 Technology of Textile Preparation & Finishing	SBL100 Introductory Biology for Engineers	TXL221 Yarn Manufacture – I	TXP231 Fabric Manufacture Laboratory – I	TXP221 Yarn Manufacture Laboratory – I	TXP241 Tech. for Tex. Prep. And Finishing Lab	APL105 Mechanics of Solids and Fluids						
	3 0 0 3	3 0 0 3	3 0 0 3	3 0 2 4	3 0 0 3	0 0 2 1	0 0 2 1	0 0 3 1.5	3 1 0 4	18.0	1	9	23.5	0	28.0
V	TXL222 Yarn Manufacture – II	TXL232 Fabric Manufacture – II	TXL242 Technology of Textile Coloration	TXL212 Manufactured Fibre Technology	HUL2XX	TXP222 Yarn Manufacture Laboratory – II	TXP232 Fabric Manufacture Laboratory – II	TXP242 Technology of Textile Coloration Lab							
	3 0 0 3	3 0 0 3	3 0 0 3	3 0 0 3	3 1 0 4	0 0 2 1	0 0 2 1	0 0 3 1.5		15.0	1	7	19.5	0	23.0
VI	TXL361 Evaluation of Textile Materials	TXL371 Theory of Textile Structures	TXL372 Speciality Yarns and Fabrics	DE 1 (3)	HUL2XX	TXP212 Manufactured Fibre Technology Lab	TXP361 Evaluation of Textiles Lab								
	3 0 0 3	3 1 0 4	2 0 0 2	3 0 0 3	3 1 0 4	0 0 2 1	0 0 2 1			14.0	2	4	18.0	0	20.0
VII	DE 3 (3)	DE 4 (3)	TXD411 B.Tech Project	HUL3XX DE 2 (3)											
	3 0 0 3	3 0 0 3	0 0 8 4	3 0 0 3	3 0 0 3					12.0	0	8	16.0	0	20.0
VIII	DE 5 (4)	OC 1 (3)	OC 2(3)	OC 3 (4)											
	3 0 2 4	3 0 0 3	3 0 0 3	3 0 2 4						12.0	0	4	14.0	0	16.0
															TOTAL=145.0