

H.B. Technological Institute, Kanpur - 02 (U.P.)

B. Tech Chemical Technology (Leather Technology)

Proposed Structure of Evaluation Scheme

Year I

Semester I

Branch: : Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1		Mathematics I	3	1	0	30	20	50	100	150	4
2		Physics / Chemistry	3	1	0	30	20	50	100	150	4
3		Electrical Engg. / Electronics Engg.	3	1	0	30	20	50	100	150	4
4		Engg. Mechanics/ Concepts of Computer and C Programming	3	1	0	30	20	50	100	150	4
5		Professional Communication / Engineering Graphics	3	1	0	30	20	50	100	150	4
6		Remedial English / Environment & Ecology	2	0	0				50	50	Audit
Practical / Training / Project											
7		Physics Lab / Chemistry Lab	0	0	3	10	10	20	30	50	1
8		Language Lab / Computer Lab	0	0	3	10	10	20	30	50	1
9		Electrical Engg. Lab/ Workshop Practice	0	1	3	30	20	50	50	100	2
10		GP						50		50	

Year I

Semester II

Branch: : Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1		Mathematics II	3	1	0	30	20	50	100	150	4
2		Physics / Chemistry	3	1	0	30	20	50	100	150	4
3		Electrical Engg. / Electronics Engg.	3	1	0	30	20	50	100	150	4
4		Engg. Mechanics/ Concepts of Computer and C Programming	3	1	0	30	20	50	100	150	4
5		Professional Communication / Engineering Graphics	3	1	0	30	20	50	100	150	4
6		Remedial English / Environment & Ecology	2	0	0				50	50	Audit
Practical / Training / Project											
7		Physics Lab / Chemistry Lab	0	0	3	10	10	20	30	50	1
8		Language Lab / Computer Lab	0	0	3	10	10	20	30	50	1
9		Electrical Engg. Lab/ Workshop Practice	0	1	3	30	20	50	50	100	2
10		GP						50		50	

Year II

Semester III

Branch: : Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HCY-301	Modern Analytical Techniques	3	1	0	30	20	50	100	150	4
2	HMA-301	Mathematics III	3	1	0	30	20	50	100	150	4
3	HCH-301	Material and Energy Balance	3	1	0	30	20	50	100	150	4
4	HCH-302	Transport Phenomena	3	1	0	30	20	50	100	150	4
5	HLT-301	Leather Microscopy and Bacteriology	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	HCY-351	Chemistry Lab	0	1	3	30	20	50	50	100	
8			0	0	3	10	10	20	30	50	
9	HLT-351	Leather Microscopy and Bacteriology lab	0	0	6	30	20	50	50	100	
10	HGP 301							50		50	

Year II

Semester IV

Branch: : Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HMA-401	Computer oriented numerical methods	3	1	0	30	20	50	100	150	4
2	HCH-406	Fluid Flow and Solid Handling	3	1	0	30	20	50	100	150	4
3	HCH-407	Chemical Engineering Thermodynamics	3	1	0	30	20	50	100	150	4
4	HCH-408	Instrumentation and Process Control	3	1	0	30	20	50	100	150	4
5	HLT-401	Skin Protein & Pre Tannages	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	HMA-451	Numerical techniques lab	0	0	3	15	10	25	25	50	
8	HCH-458	Instrumentation and Process control	0	0	3	15	10	25	25	50	
9	HLT-451	Skin Protein & Pre Tannages lab	0	0	6	30	20	50	50	100	
10	HGP 401							50		50	

Year III

Semester V

Branch: : Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	ME-501	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	CH-501	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	CH-502	Mass Transfer Operation	3	1	0	30	20	50	100	150	4
4	LT-501	Inorganic Tannages	3	1	0	30	20	50	100	150	4
5	LT-502	Organic Tannages	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	LT-551	Analysis of Materials of leather manufacture lab	0	0	3	15	10	25	25	50	
8	LT-552	Leather Processing Lab - I	0	0	6	30	20	50	50	100	
9	CH-551	Chemical Engineering Unit Operations Lab	0	0	3	15	10	25	25	50	
	GP							50		50	

Year III

Semester VI

Branch: : Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	ME-601	Machine Design	3	1	0	30	20	50	100	150	4
2	CH-601	Chemical Reaction Engineering	3	1	0	30	20	50	100	150	4
3	LT-601	Analysis of Materials of Leather Manufacture	3	1	0	30	20	50	100	150	4
4	LT-602	Leather Biotechnology	3	1	0	30	20	50	100	150	4
5	LT-603	Post Tanning & Finishing Operations	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	LT-651	Leather Analysis & Quality Control Lab	0	0	6	30	20	50	50	100	
8	LT-652	Leather Processing Lab - II	0	0	3	15	10	25	25	50	
9	LT-653	Seminar	0	0	3			50		50	
	GP							50		50	

Year IV

Semester VII

Branch:: Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Exam		ESE			
						CT	TA		Total		
Theory											
1	CH-701	Equipment Design	3	1	0	30	20	50	100	150	4
2	LT-701	Processing of Leather - I	3	1	0	30	20	50	100	150	4
3	LT-702	Tannery Effluent Treatment	3	1	0	30	20	50	100	150	4
4	LT-703	Leather Analysis & Quality Control	3	1	0	30	20	50	100	150	4
5	LT(OE)-37	Open Elective - Leather Technology	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	LT-751	Leather Processing Lab - III	0	0	6	30	20	50	50	100	
8	LT-752	Project (Term Work)	0	0	3			50		50	
9	LT-753	Industrial Training	0	0	3			50		50	
	GP							50		50	

Year IV

Semester VIII

Branch: Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme				Subject Total	Credit
			L	T	P	Sessional Exam		ESE			
						CT	TA		Total		
Theory											
1	HU-801	Industrial Management	3	1	0	30	20	50	100	150	4
2	CH-801	Process Modeling and Simulation	3	1	0	30	20	50	100	150	4
3	LT-801	Computer Aided leather Products Design	3	1	0	30	20	50	100	150	4
4	LT-802	Processing of Leather II	3	1	0	30	20	50	100	150	4
5	LT 011, 012, 021, 022	Elective - I Leather Auxiliaries Technology. Animal and Tannery by Products Leather Trades Engineering Polymer Technology	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	LT-851	Project	0	0	12	30	20	50	100	150	
8	LT-852	Educational Tour						50		50	
	GP							50		50	