

हरकोर्ट बटलर प्राविधिक विश्वविद्यालय

Harcourt Butler Technical University

Nawabganj, Kanpur-208002, U.P. (INDIA)

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Department: Plastic Technology

School: School of Chemical Technology

Name of Programme: M. Tech. (M. Tech. started at 2021-22)

Academic Session 2021-22

Total no. of courses in the Programme: 24

% Change in the course curriculum : M. Tech. Course Started from session 2021-22

No. of c	ourses where syllabus revision wa	s carried out BoS
	Name of course	Course code
1	Timile 02 Tolling	

Number of Courses related with employability/ entrepreneurship/ skill development

S. No.	s related with employability/ entrepreneurship/ skill developmen	Course code
5. INO.	Advanced Polymer Chemistry	TPL 551
2	Advanced Polymer Processing	TPL 553
3	Advances in Modelling and Simulation of Chemical Processes	TPL 555
4	Advanced Chemical Reaction Engineering	TPL 557
5	Advanced Polymer Rheology	TPL 559
6	Polymer Processing	TPL 563
7	Industrial Stoichiometery	TPL 567
8	Advanced Plastic Product and Mould Design	TPL 554
9	Polymer Testing and Characterization	TPL 556
10	Advances in Polymer Composites	TPL 558
11	Advances in Rubber Technology	TPL 560
12	Technology of Polymer Blends & Alloys	TPL 651
13	Biodegradable Polymers, Packaging and Waste Management	TPL 653
14	Polymer Nano Technology	TPL 655

Elective courses in the programme

S. No.	Program Elective Courses	Name of Course	Course code
1	PEC I	Advances in Polymer Composites	TPL 558
		Advances in Rubber Technology	TPL 560
2	PEC II	Biodegradable Polymers, Packaging and Waste Management	TPL 653
		Polymer Nano Technology	TPL 655

S. No.	Name of course	Course code
1	Advanced Polymer Chemistry	TPL 551
2	Advanced Polymer Processing	TPL 553
3	Advances in Modelling and Simulation of Chemical Processes	TPL 555
4	Advanced Chemical Reaction Engineering	TPL 557
5	Advanced Polymer Rheology	TPL 559
6	High Polymer Chemistry	TPL 561
7	Polymer Processing	TPL 563
8	Industrial Stoichiometery	TPL 567
10	Advanced Polymerization Engineering	TPL 552
11	Advanced Plastic Product and Mould Design	TPL 554
12	Polymer Testing and Characterization	TPL 556
13	Advances in Polymer Composites	TPL 558
14	Advances in Rubber Technology	TPL 560
15	Audit Course Critical review of research publication on one relevant Topic	TPL 562
16	Audit Course Research Methodology and IPR	TPL 564
17	Technology of Polymer Blends & Alloys	TPL 651
18	Biodegradable Polymers, Packaging and Waste Management	TPL 653
19	Polymer Nano Technology	TPL 655
20	Audit Course Critical Review of Research Publications on one Relevant Topic	TPL 611
21	Audit Course	TPL 613

	Research Methodology and IPR	
22	Seminar	TPL 697
23	Dissertation/Project	TPL 695
24	Dissertation/ Project	TPL 698

Signature and Seal

Head of Department
Dr. Indira Nigara
Professor & Head
Dept. of Plastic Technology
H.B. Technical University, Kangur

Semester wise Course Structure

M. Tech. Chemical Technology - Plastic Technology (Applicable from Session 2020-2021 for new entrants)

Year I, Semester I

(A Stream Only for students having B.Tech in Plastic Technology background)
(B Stream Only for students having B.Tech in other than Plastic Technology background)
(C Stream Only for students of M.Sc (Chemistry/Applied Chemistry /Industrial Chemistry) background)

	Stream A												
Sr.	Course	Subject	Course Title	Credit	Pe	rio	ds		Sessiona	l Marks		ESE	Total
No.	Type	Code		S									Marks
					L	T	P	MSE	TA	Lab	Total		
1.	PCC	TPL 551	Advanced Polymer	5	3	1	2	15	20	15	50	50	100
			Chemistry										
2.	PCC	TPL 553	Advanced Polymer	4	3	1	0	30	20	-	50	50	100
			Processing										
3.	PCC	TPL 555	Advances in Modelling	4	3	1	0	30	20	-	50	50	100
			and Simulation of										
			Chemical Processes										
4.	PEC	TPL 557	Advanced Chemical	4	3	1	0	30	20	-	50	50	100
			Reaction Engineering										
		Total		17	1	4	2				200	200	400
					2								

OR

	Stream B/C												
Sr.	Course	Subject	Course Title	Credit	Pe	rio	ds		Sessiona	l Marks		ESE	Total
No.	Type	Code		S									Marks
					L	T	P	MSE	TA	Lab	Total		
1.	PCC	TPL 559	Advanced Polymer	4	3	1	0	30	20	-	50	50	100
			Rheology										
2.	PCC	TPL 561	High Polymer	5	3	1	2	15	20	15	50	50	100
			Chemistry										
3.	PCC	TPL 563	Polymer Processing	4	3	1	0	30	20	-	50	50	100
4.	PEC	TPL 567	Industrial	4	3	1	0	30	20	-	50	50	100
			Stoichiometery										
5.	*MC	BMA 551	Engineering	2	2	0	0	-	-	-	-	-	-
	(Non		Mathematics										
	Credit)												
		Total		17	1	4	2				200	200	400
					2								

^{*}Only for students of Non-mathematics background at graduation level

Semester wise Course Structure

M. Tech. Chemical Technology - Plastic Technology (Applicable from Session 2020-2021 for new entrants)

Year I, Semester II

Sr.	Course	Subject	Course Title	Credit	Pe	rio	ls		Sessiona	l Marks		ESE	Total
No.	Type	Code		S									Marks
					L	T	P	MSE	TA	Lab	Total		
1.	PCC	TPL 552	Advanced	4	3	1	0	30	20	-	50	50	100
			Polymerization										
			Engineering										
2.	PCC	TPL 554	Advanced Plastic	4	3	1	0	30	20	-	50	50	100
			Product and Mould										
			Design										
3.	PCC	TPL 556	Polymer Testing and	5	3	1	2	15	20	15	50	50	100
			Characterization										
4.	PEC	TPL 558	Advances in Polymer	4	3	1	0	30	20	-	50	50	100
			Composites										
		TPL 560	Advances in Rubber										
		IFL 300	Technology										
5.	MC	TPL 562	Audit Course		0	2	0						
	(Non		Critical review of										
	Credit)		research publication on										
	MC	TDI 564	one relevant Topic		0	1	0						
6.	MC (Non	TPL 564	Audit Course		0	1	0						
	(Non Credit)		Research Methodology and IPR										
	Cicuit)	Total	and II K	17	12	4	2				200	200	400

Semester wise Course Structure

M. Tech. Chemical Technology - Plastic Technology (Applicable from Session 2021-2022)

Year II, Semester III

Sl.	Course	Subject	Course Title	Credit	P	eric	ods		Session	al Mark	S	ESE	Total
No.	Type	Code		S	L	Т	P	MS	TA	Lab	Total		Marks
					L	1	г	E	1A	Lau	Total		
1.	PCC	TPL 651	Technology of Polymer Blends & Alloys	4	3	1	0	30	20	-	50	50	100
2.	PEC	TPL 653	Biodegradable	4	3	1	0	30	20	-	50	50	100
			Polymers, Packaging										
			and Waste Management										
		TPL 655	Polymer Nano										
			Technology										
3.	MC	TPL 611	Audit Course		0	2	0						
	(Non		Critical Review of										
	Credit)		Research Publications										
			on one Relevant Topic										
4.	MC	TPL 613	Audit Course		2	1	0						
	(Non		Research Methodology										
	Credit)		and IPR										
5.	Semina	TPL 697	Seminar	4	0	0	8	-	50	-	50	50	100
	Piasant	TDI 605	*Discontation/Dusis it	2	0	0	4		50		50	50	100
6.	Dissert ation/	TPL 695	*Dissertation/Project	2	0	U	4	-	50	-	50	50	100
	Project												
	110,000	Total		14	8	5	12				200	200	400

^{*}Dissertation to be continued in fourth semester.

Semester wise Course Structure

M. Tech. Chemical Technology - Plastic Technology (Applicable from Session 2021-2022)

Year II, Semester IV

S1.	Course	Subject	Course Title	Credit	P	Periods			Session	S	ESE	Total	
No.	Type	Code		S							Marks		
					L	T	P	MS	TA	Lab	Total		
								Е					
1.	Dissert ation/	TPL 698	Dissertation/Project	12	0	0	24	-	50	-	50	50	100
	Project												
		Total		12	0	0	24		50		50	50	100