SEMESTER WISE COURSE STRUCTURE
& EVALUATION SCHEME

for

M. TECH. DEGREE PROGRAMME
IN
CHEMICAL TECHNOLOGY PLASTIC TECHNOLOGY
(Effective from the session 2020-21)

DEPARTMENT OF PLASTIC TECHNOLOGY
SCHOOL OF CHEMICAL TECHNOLOGY
HARCOURT BUTLER TECHNICAL UNIVERSITY
KANPUR-208002
UTTAR PRADESH

Department of Chemical Technology-Plastic Technology

Vision

"The department of chemical technology-plastic technology aspires to achieve excellence in technical knowledge and skill, research and innovation in Plastics and Allied areas"

Mission

The mission of the Department of Chemical Technology- Plastic Technology are:

- **M1 :** To develop state-of-the-art facilities to impart technical knowledge and skill to the graduate & post graduate students for plastic and allied industries and research organizations
- **M2 :** To be a center of research and innovation for betterment of society in sustainable manner.
- **M3 :** To develop state-of-the-art technologies for testing and consultancy for industry and society.
- **M4 :** To cultivate strong ethical values to be a successful professionals and to become life-long learners.

HARCOURT BULTER TECHNICAL UNIVERSITY KANPUR
SCHOOL OF CHEMICAL TECHNOLOGY
DEPARTMENT OF CHEMICAL TECHNOLOGY - PLASTIC TECHNOLOGY

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. No.	Course Type	Subject Code	Course Title	Credits	Periods			Sessional Marks				ESE	Total Marks
					L	T	P	MSE	TA	Lab	Total		
1.	PCC	TPL 551	Advanced Polymer Chemistry	5	3	1	2	15	20	15	50	50	100
2.	PCC	TPL 553	Advanced Polymer Processing	4	3	1	0	30	20	-	50	50	100
3.	PCC	TPL 555	Advances Modelling and Simulation of Chemical Processes	4	3	1	0	30	20	-	50	50	100
4.	PEC	TPL 557	Advanced Chemical Reaction Engineering	4	3	1	0	30	20	-	50	50	100
		Total		**17**	**12**	**4**	**2**				**200**	**200**	**400**

OR

Stream B/C

Sr. No.	Course Type	Subject Code	Course Title	Credits	Periods			Sessional Marks				ESE	Total Marks
					L	T	P	MSE	TA	Lab	Total		
1.	PCC	TPL 559	Advanced Polymer Rheology	4	3	1	0	30	20	-	50	50	100
2.	PCC	TPL 561	High Polymer Chemistry	5	3	1	2	15	20	15	50	50	100
3.	PCC	TPL 563	Polymer Processing	4	3	1	0	30	20	-	50	50	100
4.	PEC	TPL 567	Industrial Stoichiometery	4	3	1	0	30	20	-	50	50	100
5.	*MC (Non Credit)	BMA 551	Engineering Mathematics	2	2	0	0	-	-	-	-	-	-
		Total		**17**	**12**	**4**	**2**				**200**	**200**	**400**

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

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SCHOOL OF CHEMICAL TECHNOLOGY
DEPARTMENT OF CHEMICAL TECHNOLOGY - PLASTIC TECHNOLOGY

Semester wise Course Structure

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

Year I, Semester II

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

HARCOURT BULTER TECHNICAL UNIVERSITY KANPUR

SCHOOL OF CHEMICAL TECHNOLOGY
DEPARTMENT OF CHEMICAL TECHNOLOGY - PLASTIC TECHNOLOGY

Semester wise Course Structure

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

Year II, Semester III

Sl. No.	Course Type	Subject Code	Course Title	Credits	Periods			Sessional Marks				ESE	Total Marks
					L	T	P	MSE	TA	Lab	Total		
1.	PCC	TPL 651	Technology of Polymer Blends & Alloys	4	3	1	0	30	20	-	50	50	100
2.	PEC	TPL 653 TPL 655	Biodegradable Polymers, Packaging and Waste Management Polymer Nano Technology	4	3	1	0	30	20	-	50	50	100
3.	MC (Non Credit)	TPL 611	Audit Course Critical Review of Research Publications on one Relevant Topic		0	2	0						
4.	MC (Non Credit)	TPL 613	Audit Course Research Methodology and IPR		2	1	0						
5.	Seminar	TPL 695	Seminar	4	0	0	8	-	50	-	50	50	100
6.	Dissertation/ Project	TPL 697	*Dissertation/Project	2	0	0	4	-	50	-	50	50	100
		Total		**14**	**8**	**5**	**12**				**200**	**200**	**400**

*Dissertation to be continued in fourth semester.

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DEPARTMENT OF CHEMICAL TECHNOLOGY - PLASTIC TECHNOLOGY

Semester wise Course Structure

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

Year II, Semester IV

Sl. No.	Course Type	Subject Code	Course Title	Credits	Periods			Sessional Marks				ESE	Total Marks
					L	T	P	MSE	TA	Lab	Total		
1.	Dissertation/ Project	TPL 698	Dissertation/Project	12	0	0	24	-	50	-	50	50	100
		Total		**12**	**0**	**0**	**24**		**50**		**50**	**50**	**100**