

**DEPARTMENT OF PAPER TECHNOLOGY  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code: **42**    **M.Tech. (Packaging Technology)**  
 Department: **PP**    **Department of Paper Technology**  
 Year: **I**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester- I (Autumn)</b>														
1.	PPN-541	Packaging Principles, Processes and Sustainability	PCC	3	3	0	0	3	0	25	-	25	50	-
2.	PPN-543	Packaging Materials	PCC	5	4	0	2	3	0	15	25	20	40	-
3.	PPN-545	Printing Technology	PCC	3	3	0	0	3	0	25	-	25	50	-
4.	PPN-547	Converting Processes for Packaging	PCC	3	3	0	0	3	0	25	-	25	50	-
5.		Program Elective-I	PEC	4	3	1	0	3	0	25	-	25	50	-
		Total		18	13	-	2							
<b>Semester-II (Spring)</b>														
1.	PPN-544	Package Performance	PCC	3	3	0	2/2	3	0	20	20	20	40	-
2.	PPN-546	Package Design	PCC	3	2	0	2	2	0	15	25	20	40	-
3.	PPN-700	Seminar	SEM	2	0	0	4	0	0	-	-	-	100	-
4.		Program Elective-II	PEC	3	3	0	0	-	0	-	-	-	-	-
5.		Program Elective-III	PEC	3	3	0	0	-	0	-	-	-	-	-
6.		Program Elective-IV	PEC	3	3	0	0	-	0	-	-	-	-	-
7.		Program Elective-V	PEC	3	3	0	0	-	0	-	-	-	-	-
		Total		20	5	0	3							

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Program Code:     **42**     **M.Tech. (Packaging Technology)**  
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 Year:               **II**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Semester- I (Autumn)</b>														
1.	PPN-701A	Dissertation Stage-I (to be continued next semester)	DIS	12	-	-	-	-	-	-	50	-	-	50
		Total		12										
<b>Note: Students can take 1 or 2 audit courses as advised by the supervisor, if required.</b>														
<b>Semester-II (Spring)</b>														
1.	PPN-701B	Dissertation Stage-II (contd. From III semester)	DIS	18	-	-	-	-	-	-	50	-	-	50
		Total		18										

<b>Summary</b>				
Semester	1	2	3	4
<b>Semester-wise Total Credits</b>	<b>18</b>	<b>20</b>	<b>12</b>	<b>18</b>
<b>Total Credits</b>	<b>68</b>			

**Program Elective Courses M.Tech. (Packaging Technology)**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
<b>Program Elective-I</b>														
1.	PPN-551	Application of Modeling and Simulation in Packaging	PEC	4	3	0	2	3	-	15	25	20	40	-
2.	PPN-553	Statistical Analysis and Design of Experiments	PEC	4	3	1	0	3	-	25	-	25	50	-
3.	PPN-515	Advanced Numerical Methods and Statistics	PEC	4	3	1	0	3	-	25	-	25	50	-
<b>Program Elective-II</b>														
4.	PPN-561	Business Law	PEC	3	3	0	0	3	0	25	-	25	50	-
5.	PPN-563	Logistics and Supply Chain Management	PEC	3	3	0	0	2	0	25	-	25	50	-
6.	PPN-565	Industrial Design	PEC	3	2	0	2	-	0	15	25	20	40	-
7.	PPN-567	Economics of Packaging	PEC	3	3	0	0	-	0	25	-	25	50	-
<b>Program Elective-III, IV, V</b>														
8.	PPN-552	Smart Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
9.	PPN-554	Optoelectronics in Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
10.	PPN-556	Robotics and Automated Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
11.	PPN-558	Food and Pharmaceutical Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
12.	PPN-560	Hazardous Material Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
13.	PPN-562	Industrial Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
14.	PPN-564	Sustainable Packaging and Life Cycle Analysis	PEC	3	3	0	0	3	-	25	-	25	50	-
15.	PPN-566	Lamination and Functional Coatings	PEC	3	3	0	0	3	-	25	-	25	50	-
16.	PPN-568	Nanotechnology Applications in Packaging	PEC	3	3	0	0	3	-	25	-	25	50	-
17.	PPN-570	Advanced Analytical Techniques	PEC	3	3	0	2/2	3	-	20	20	20	40	-