

Guru Jambheshwar University Of Science & Technology, Hisar — 125001 Scheme of B. Tech. — Packaging Technology, w.e.f. Session 2020-2024

# B. Tech. (Packaging Technology) III- Semester

Sr.	Category	Course	e Code	Course Nomenclature	Hou	rs per w	eek	Co	urse Credits	3
No.	Category	Theory	Practical	Gourse ryomenerature	L	T	P	Theory	Practical	Total
1.	Basic Science Courses	BSC-PKG201-T	-	Applied Sciences for Packaging	3	0	0	3.0		3.0
2.	Engineering Science Courses	ESC-PKG201-T	- 20	Engineering Science for Printing	3	0	0	3.0		3.0
3.	Professional Core Courses	PCC-PKG201-T	PCC- PKG201-P	El <mark>emen</mark> ts of Packaging	3	0	3	3.0	1.5	4.5
4.	Professional Core Courses	PCC- PKG203-T	PCC- PKG203-P	Package Printing Processes	3	0	3	3.0	1.5	4.5
5.	Professional Core Courses	PCC- PKG205-T	PCC- PKG205-P	Graphics Design Essentials in Packaging	3	0	3	3.0	1.5	4.5
6.	Mandatory Courses	MC103-T	r Di	Indian Constitution	3	0	0	0.0		0.0
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Total Credits 19.5										19.5

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## B. Tech. (Packaging Technology) IV- Semester

Sr.	Category	Course Code		Course Nomenclature	Hou	rs per w	eek	Co	urse Credits	s
No.		Theory	Practical		L	Т	P	Theory	Practical	Total
1.	Basic Science Courses	BSC-PKG202-T		Applied Sciences for Packaging Materials	3	0	0	3.0		3.0
2.	Professional Core Courses	PCC- PKG202-T	PCC- PKG202-P	Pre-Press Technology in Packaging	3	0	3	3.0	1.5	4.5
3	Professional Core Courses	PCC- PKG204-T	PCC- PKG204-P	Compu <mark>ter</mark> Bas <mark>ed Pack</mark> age Design	3.	0	3	3.0	1.5	4.5
4	Professional Core Courses	PCC- PKG206-T	PCC- PKG206-P	Paper Substrate in Packaging	300	0	3	3.0	1.5	4.5
5	Professional Core Courses	PCC- PKG208-T	Atl	Polymers in Packaging	30 MH	0	0	3.0		3.0
6.	Mandatory Courses	MC104-T	ans	Esse <mark>nce</mark> of Indian Traditional Knowledge	93	0	0	0.0		0.0
18 0 9										
Total Credits 19										19.5

L-Lecture, T-Tutorial, P-Practical

Note: Each student will have to undergo 4 to 6 weeks duration Industrial/Research Laboratory Training (Summer Training-I) during summer vacations at the end of 4<sup>th</sup> Semester which will be evaluated in 5<sup>th</sup> Semester.





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# B. Tech. (Packaging Technology) V- Semester

Sr.	Category	Course	e Code	Course Nomenclature	Hou	rs per w	eek	Co	urse Credits	6
No.		Theory	Practical		L	T	P	Theory	Practical	Total
1.	Open Elective Courses	OEC-I		Open Elective Course-I	3	0	0	3.0		3.0
2.	Humanities, Social Sciences and Management Courses	HSMC302-T	MARU	Fundamental of Management f <mark>or</mark> Engineers	2	0	0	2.0		2.0
3.	Professional Core Courses	PCC- PKG301-T	PCC- PKG301-P	Colou <mark>r Management in Pack</mark> aging	3E %	0	3	3.0	1.5	4.5
4.	Professional Core Courses	PCC- PKG303-T	PCC- PKG303-P	Rigid Packaging Machines	3	0	3	3.0	1.5	4.5
5.	Professional Core Courses	PCC- PKG305-T	Jan Jan	Pharmaceutical and Cosmetics Packaging	3	0	0	3.0		3.0
6.	Project Work		PROJ- PKG301-P	Industrial Training Presentation-I	0	0	2		1.0	1.0
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	Total Credits 18								18.0	

Note: Assessment of Summer Training-I will be based on presentation/seminar, viva-voce, report and certificate for the practical training taken at the end of 4<sup>th</sup> semester.





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# B. Tech. (Packaging Technology) VI- Semester

Sr.	Catagomy	Course	e Code	Course Nomenclature	Hou	ırs per w	reek	Cou	rse Credits	
No.	Category	Theory	Practical	Course Nomenciature	L	T	P	Theory	Practical	Total
1.	Open Elective Courses	OEC-II	1	Open Elective Course -II	3	0	0	3.0		3.0
2.	Program Elective Courses	PEC-I	RUN	Program Elective Course -I	3	0	0	3.0		3.0
3.	Humanities, Social Sciences and Management Courses	HSMC301-T	IESHIN	Economics for Engineers	m <sub>2</sub>	0	0	2.0		2.0
4.	Professional Core Courses	PCC- PKG302-T	PCC- PKG302-P	Print Finishing Techniques	3	0	3	3.0	1.5	4.5
5.	Professional Core Courses	PCC- PKG304-T	PCC- PKG304-P	Ink Technology in Packaging	3	0	3	3.0	1.5	4.5
6.	Professional Core Courses	PCC- PKG306-T	Na	FM <mark>CG P</mark> ackaging	3	0	0	3.0		3.0
			30		17	0	6			
				Total Credits		7				20.0

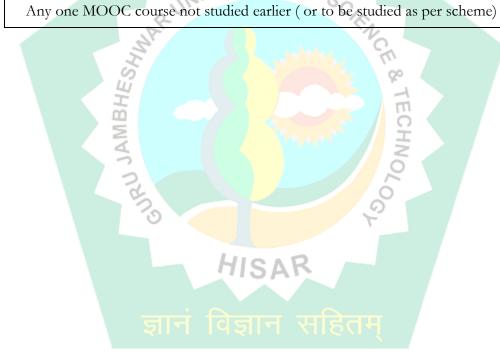
Note: Each student will have to undergo 6 to 8 weeks duration Industrial/Research Laboratory Training (Summer Training-II) during summer vacations at the end of 6<sup>th</sup> Semester which will be evaluated in 7<sup>th</sup> Semester.





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Program Elective Course-I (PE -I : Theory)							
Course Code	Course Name						
PEC-PKG151-T	Digital Printing Process						
PEC- PKG152-T	Hybrid Printing Technology						
PEC- PKG153-T	Offset Technology						







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# B. Tech. (Packaging Technology) VII- Semester

Sr.	Catagoni	Cours	e Code	Course Nomenclature	Hou	ırs per w	reek	Co	urse Credits	3
No.	Category	Theory	Practical	Course Monnenciature	L	T	P	Theory	Practical	Total
1.	Open Elective Courses	OEC-III		Open Elective Course -III	3	0	0	3.0		3.0
2.	Program Elective Courses	PEC-II	PEC-II Lab	Program Elective Course -II	3	0	2	3.0	1.0	4.0
3	Program Elective Courses	PEC-III	MAR	Program Elective Course -III	3	0	0	3.0		3.0
4.	Professional Core Courses	PCC-PKG401-T	PCC-PKG401-P	Packaging Converting Process	3	0	3	3.0	1.5	4.5
5.	Professional Core Courses	PCC-PKG403-T	ВН	Print Cost Estimation	31	0	0	3.0		3.0
6.	Project Work		PROJ-PKG401-P	M <mark>inor Project</mark>	0	0	6		3.0	3.0
7.	Project Work		PROJ-PKG403-P	<u>Semi</u> nar	0	0	2		1.0	1.0
8.	Project Work		PROJ-PKG405-P	Indu <mark>strial</mark> Training  Presentation-II	00	0	2		1.0	1.0
9.	Mandatory Courses		MC-PKG401-P	General Proficiency	0	0	2		0.0	0.0
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Program E	lective Course - II (Theory)	Program Elective Course - II (Practical)						
Course Code	Course Name	Course Code	Course Name					
PEC-PKG251-T	Polymer Processing Technology	PEC-PKG251-P	Polymer Processing Technology Lab.					
PEC- PKG252-T	Packaging Machinery Maintenance	PEC- PKG252-P	Packaging Machinery Maintenance Lab.					
PEC- PKG253-T	Dry Offset Printing Process	PEC- PKG253-P	Dry Offset Printing Process Lab.					
	Any one MOOC course not studied earlier ( or to be studied as per scheme)							

3	Program Elective Course - III (Theory)									
Course Code Course Name										
PEC-PKG351-T	Supply Chain Management									
PEC- PKG352-T	Green Printing									
PEC- PKG353-T	Industrial Packaging									
Any one MOOC	Course not studied earlier ( or to be studied as per scheme)									

#### Note:

- 1. Students will be allowed to use non-programmable scientific calculator only, however sharing of calculator will not be permitted.
- 2. Project load will be treated as 2 hours for Project Coordinator and 1 hour for each participating teacher.
- 3. Assessment of Seminar will be based on presentation, viva-voce and report.
- 4. Assessment of Summer Training-II will be based on presentation/seminar delivered, viva-voce, report and certificate for the practical training taken at the end of 6<sup>th</sup> Semester.

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## Guru Jambheshwar University Of Science & Technology, Hisar – 125001

Scheme of B. Tech. - Packaging Technology, w.e.f. Session 2020-2024

# B. Tech. (Packaging Technology) VIII- Semester

Sr.	Catagogra	Cours	se Code	Course Nomenclature	Hou	rs per w	reek	Co	urse Credits	}
No.	Category	Theory	Practical	Course Nomenciature	L	T	P	Theory	Practical	Total
1.	Program Elective Courses	PEC-IV	PEC-IV Lab	Program Elective Course - IV	3	0	3	3.0	1.5	4.5
2.	Program Elective Courses	PEC-V	PEC-V Lab	Program Elective Course - V	3	0	3	3.0	1.5	4.5
3.	Professional Core Courses	PCC-PKG402-T	PCC-PKG402-P	Quality Control & Waste Management	3	0	3	3.0	1.5	4.5
4.	Professional Core Courses	PCC-PKG403-T	JAK	Latest Trends in Packaging	3	0	0	3.0		3.0
5.	Project Work, Seminar and Internship in Industry		PROJ-PKG402-P	Major Project	E 80TE	0	8	1	4.0	4.0
6.	Project Work, Seminar and Internship in Industry		PROJ-PKG404-P	Seminar	<sup>7</sup> ORHO	0	4		2.0	2.0
12 0 21										
Total Credits										

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Program Ele	ective Course - IV (Theory)	Program Elective Course - IV (Practical)						
Course Code	Course Name	Course Code	Course Name					
PEC-PKG451-T	Technology of Gravure	PEC-PKG451-P	Technology of Gravure Lab.					
PEC- PKG452-T	Label Printing	PEC- PKG452-P	Label Printing Lab.					
PEC- PKG453-T	Technology of Flexography	PEC- PKG453-P	Technology of Flexography Lab.					
Any one MOOC course not studied earlier ( or to be studied as per scheme)								

Progra	am Elective Course - V (Theory)	Program Elective Course - V (Practical)							
Course Code	Course Name	Course Code	Course Name						
PEC-PKG551-T	Rigid Packaging Machinery	PEC-PKG551-P	Rigid Packaging Machinery Lab.						
PEC- PKG552-T	Packaging of Industrial and Hazardous Goods	PEC- PKG552-P	Packaging of Industrial and Hazardous Goods Lab.						
PEC- PKG553-T	Flexible Packaging Machines	PEC- PKG553-P	Flexible Packaging Machines Lab.						
	Any one MOOC course not studied earlier ( or to be studied as per scheme)								

#### Note:

- 1. The project will be evaluated at the end of the 8<sup>th</sup> Semester on the basis of its implementation (software/hardware), presentation delivered, viva-voce and report.
- 2. A viva of the students will be taken by external examiner at the end of the semester.

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#### Or

#### B. Tech. (Packaging Technology): 8th Semester FULL SEMESTER INDUSTRIAL TRAINING

Sr.	Category	Course Code		C. Tid.	Hours per week			Course Credits		
No.		Theory	Practical	Course Title	L	Т	P	Theory	Practical	Total
1.	Professional Core Courses	PCC-PKG402-T	PCC-PKG402-P	Quality Control & Waste  Management	3	0	3	3	1.5	4.5
2.	Professional Core Courses	PCC-PTG404-T	-JAP	Latest Trends in  Packaging	1 3	0	0	3.0	0	3.0
3.	Industrial Training		PROJ-PKG-442-P	Full Semester Industrial Training	0	0	30		15.0	15.0
06 0 33										
Total Credits 2.										

#### Guidelines for 8th Semester Full Semester Industrial Training

The student will be required to submit to the department, the offer letter for the full semester industrial training, at-least 15 days before the commencement of 8<sup>th</sup> Semester. The options shall be according to the following conditions: A student may opt for one semester industrial training in lieu of attending the courses of 8<sup>th</sup> Semester. The scheme and syllabus for full semester industrial training is mentioned above.

A student will be allowed to join the industrial training under following conditions: -

i. If the student gets selected for the job through campus placements and the employer is willing to take the student for the training for a period of full semester.



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### Department Of Printing Technology

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- ii. If the student gets offer of pursuing training from reputed Research organization/Govt. sponsored project/ Govt. research institution/Multinational corporations (MNCs)/ Public sectors.
- iii. Student will have to manage their Professional Core Courses as per concerned faculty guidelines for conducting classes in offline/online mode.
- iv. For completion of lab work, the student will have to undergo for two week capsule course in respective lab of the department prior to final practical examination.
- v. For evaluation of the industrial training, the guidelines circulated by T&P Cell will prevail.

For pursuing this training, the student shall require prior approval from Dean of Faculty of Engineering & Technology through the Chairperson of the respective department. To ensure the fruitfulness of this training, a list of companies, beside the Govt. organizations/ Public sectors, will be provided. The student will be allowed to go for training only to the companies/organizations mentioned in the list. The list can be modified (addition/deletion) from time to time subject to approval from Dean, Faculty of Engineering and Technology.



