



Department Of Printing Technology
Guru Jambheshwar University Of Science & Technology, Hisar – 125001
Scheme of B. Tech. – Packaging Technology, w.e.f. Session 2021 -2025

B. Tech. (Packaging Technology) III- Semester

Sr. No.	Category	Course Code		Course Nomenclature	Hours per week			Course Credits		
		Theory	Practical		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	--	Engineering Science for Printing	3	0	0	3.0	--	3.0
3.	Professional Core Courses	PCC-PKG201-T	PCC- PKG201-P	Elements 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	--	Indian Constitution	3	0	0	0.0	--	0.0
					18	0	9			
Total Credits									19.5	

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B. Tech. (Packaging Technology) IV- Semester

Sr. No.	Category	Course Code		Course Nomenclature	Hours per week			Course Credits		
		Theory	Practical		L	T	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	Computer Based Package Design	3	0	3	3.0	1.5	4.5
4	Professional Core Courses	PCC- PKG206-T	PCC- PKG206-P	Paper Substrate in Packaging	3	0	3	3.0	1.5	4.5
5	Professional Core Courses	PCC- PKG208-T	---	Polymers in Packaging	3	0	0	3.0	--	3.0
6.	Mandatory Courses	MC104-T	--	Essence of Indian Traditional Knowledge	3	0	0	0.0	--	0.0
					18	0	9			
Total Credits									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 4th Semester which will be evaluated in 5th Semester.

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B. Tech. (Packaging Technology) V- Semester

Sr. No.	Category	Course Code		Course Nomenclature	Hours per week			Course Credits		
		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	--	Fundamental of Management for Engineers	2	0	0	2.0	--	2.0
3.	Professional Core Courses	PCC- PKG301-T	PCC- PKG301-P	Colour Management in Packaging	3	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	--	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
					14	0	8			
Total Credits									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 4th semester.

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B. Tech. (Packaging Technology) VI- Semester

Sr. No.	Category	Course Code		Course Nomenclature	Hours per week			Course Credits		
		Theory	Practical		L	T	P	Theory	Practical	Total
1.	Open Elective Courses	OEC-II	--	Open Elective Course -II	3	0	0	3.0	--	3.0
2.	Program Elective Courses	PEC-I	--	Program Elective Course -I	3	0	0	3.0	--	3.0
3.	Humanities, Social Sciences and Management Courses	HSMC301-T	--	Economics for Engineers	2	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	--	FMCG Packaging	3	0	0	3.0	--	3.0
					17	0	6			
Total Credits										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 6th Semester which will be evaluated in 7th Semester.

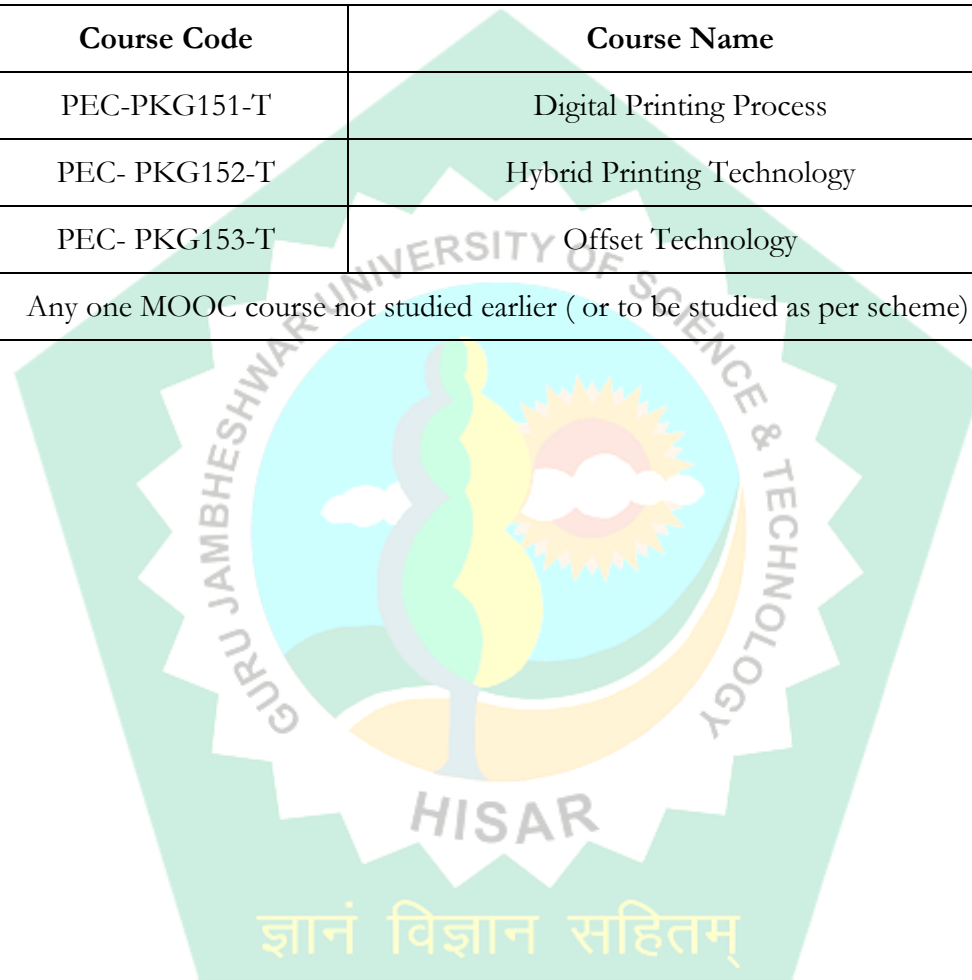
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Program Elective Course-I (PE -I : Theory)	
Course Code	Course Name
PEC-PKG151-T	Digital Printing Process
PEC- PKG152-T	Hybrid Printing Technology
PEC- PKG153-T	Offset Technology
Any one MOOC course not studied earlier (or to be studied as per scheme)	



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B. Tech. (Packaging Technology) VII- Semester

Sr. No.	Category	Course Code		Course Nomenclature	Hours per week			Course Credits		
		Theory	Practical		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	--	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	--	Print Cost Estimation	3	0	0	3.0	--	3.0
6.	Project Work	--	PROJ-PKG401-P	Minor Project	0	0	6	--	3.0	3.0
7.	Project Work	--	PROJ-PKG403-P	Seminar	0	0	2	--	1.0	1.0
8.	Project Work	--	PROJ-PKG405-P	Industrial Training Presentation-II	0	0	2	--	1.0	1.0
9.	Mandatory Courses	--	MC-PKG401-P	General Proficiency	0	0	2	--	0.0	0.0
					15	0	17			
Total Credits									22.5	

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Program Elective 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)			

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 6th Semester.

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B. Tech. (Packaging Technology) VIII- Semester

Sr. No.	Category	Course Code		Course Nomenclature	Hours per week			Course Credits		
		Theory	Practical		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	--	Latest Trends in Packaging	3	0	0	3.0	--	3.0
5.	Project Work, Seminar and Internship in Industry	--	PROJ-PKG402-P	Major Project	0	0	8	--	4.0	4.0
6.	Project Work, Seminar and Internship in Industry	--	PROJ-PKG404-P	Seminar	0	0	4	--	2.0	2.0
					12	0	21			
Total Credits									22.5	

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Program Elective 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)			

Program 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 8th 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. No.	Category	Course Code		Course Title	Hours per week			Course Credits		
		Theory	Practical		L	T	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	----	Latest Trends in Packaging	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										22.5

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 8th 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 8th 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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- 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.

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