

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA IN PRINTING TECHNOLOGY

SEMESTER: V

Subject Name: **Converting & Packaging**

Sr. No.	Course content
1.	Introduction: Converting and Packaging 1.1 Define converting & its importance in printing industry. 1.2 Define packaging and its important in printing industry.
2.	Different Systems of Packaging: 2.1 List various packages. 2.2 Know various types of packaging. 2.3 Interpret relation between printing processes and products. 2.4 Factors influencing package design in relation to consumer demand, sales promotion.
3.	Packaging Materials: 3.1 List various materials used such as, paper, board, corrugated board, films, foils, plastics etc. 3.2 Know the properties, applications, cost factors of materials. 3.3 Importance and role of waxing, varnishing, Lamination, foiling, labeling etc. 3.4 Understand various adhesives and their properties.
4.	Production of Package: 4.1 Know various steps involved before production started. 4.2 Preparation of dies for cutting, creasing, punching, stripping, etc. 4.3 Care in closing, sealing, Finishing etc. 4.4 Precautions adopted in placement, storing till dispatch. 4.5 Production process of Corrugated Box.
5.	Modern Development in Preparing Various Packs: 5.1 Acquire knowledge of different aspects in packaging. 5.2 Know new trends in carton and box style e. g. Packaging wraparound carton system, see-through cartons etc. 5.3 Understand CAD automatic labeling system and development in flexible packaging etc.
6.	Modern Packaging Machine: 6.1 Carton packaging machine. 6.2 Film (Flexible) packaging machines.
7.	Production Planning and Control: 7.1 Chalk out strategy to execute a work with proper plan. 7.2 Observe and study the interruption caused in operation (steps) 7.3 Draw an organizational chart of Carton Packaging unit. 7.4 Draw an organizational chart of Flexible Packaging unit.

Laboratory Experience:

1. Handling and inspecting the styles of cartons, designing the cartons, Building up cartons, board manually, die making.
2. Kinds of cartons to be prepared in 5 styles. (with Layout)
3. Kinds of boxes to be prepared in 3 styles. (with Layout)
4. Make ready on heavy duty punching, cutting, creasing, scoring machines for cartoon / boxes.
5. Stripping, Sealing or closing the carton / boxes.
6. Print finishing operations: Windowing, waxing, varnishing, Lamination, gold blocking, embossing etc.

Reference Books:

Sr. No.	Name of Books	Author	Publication
1.	Printing & Packaging Technology	Bishwanath Chakravaty	Golgotia Publication Pvt. Ltd. New Delhi.
2.	Book Binding for students	M. P. Kini	Institute of Printing Adiyar Chennai
3.	Finishing Processes Printing	A. G. Martin	Focal press London & New York
4.	Fundamentals of Packaging	F.A. Paine	
5.	Hand book of Packaging Engineering	J. F. Hanlon	M.C. Gran Hill