

Name of Faculty:- Bansi Lal
 Discipline: - FoodTechnology
 Institute: Govt. Polytechnic, Mandi Adampur
 Semester:- 5th
 Subject: - Food Packaging Technology (Theory and Practical)
 Lesson Plan Duration: - 16 weeks (Aug 2025 to Nov-2025)
 Workload (Theory/Practical) per week (in hours): Theory- 02, Practical- 04

Week	Lecture Day	Topic
1 st	1. 2. 3. 4.	Introduction Definition of Food Packaging, Importance and scope of packaging of foods, Identification of different types of packaging and packaging materials. (Practical) Identification of different types of packaging and packaging materials. (Practical)
2 nd	5. 6. 7. 8.	Principles of packaging, Function of packaging Classification of packages and packaging materials: traditional and modern packaging , primary packaging material and secondary packaging material Determination of tensile strength of given material. (Practical) Determination of tensile strength of given material. (Practical)
3 rd	9. 10. 11. 12.	Classification of packaging components. Classification of packaging components. To perform non-destructive tests for the glass containers such as physical examination. To perform non-destructive tests for the glass containers such as physical examination.
4 th	13. 14. 15. 16	General characteristics and properties of packaging materials. General characteristics and properties of packaging materials. To perform different destructive tests for glass containers. To perform different destructive tests for glass containers.
5 th	17. 18. 19. 20.	General characteristics and properties of packaging materials. General characteristics and properties of packaging materials Determination of tearing strength of paper. Determination of tearing strength of paper.
6 th	21. 22. 23. 24.	General characteristics and properties of packaging materials Classification based on packaging techniques: Vacuum packaging, Gas packaging, MAP, CAP, Measurement of thickness of packaging materials. Measurement of thickness of packaging materials.
7 th	25. 26. 27. 28.	SESSIONAL-I Classification based on packaging techniques: Active packaging, aseptic packaging, edible packaging, shrink packaging To perform grease-resistance test in plastic pouches To perform grease-resistance test in plastic pouches
8 th	29. 30. 31. 32.	Brief introduction to Thickness, The basis weight for paper or paper board, Grease resistance Brief introduction to Water Vapour Transmission Rate (WVTR), Gas Transmission Rate Determination of bursting strength of packaging material. Determination of bursting strength of packaging material.
9 th	33. 34. 35. 36.	Brief introduction to Tearing strength, bursting strength, tensile strength, Brief introduction to Drop test, Puncture test, Impact test etc Determination of water-vapour transmission rate for paper. Determination of water-vapour transmission rate for paper.

10th	37. 38. 39. 40.	Packaging of cereal and pulses based products Packaging of cereal and pulses based products Demonstration of can seaming operation (Practical) Demonstration of can seaming operation (Practical)
11th	41. 42. 43. 44.	SESSIONAL-II Packaging of Milk and dairy products Testing of chemical resistance of packaging materials. Testing of chemical resistance of packaging materials.
12th	45. 46. 47. 48.	Packaging of Milk and dairy products Packaging of Meat, Fish , Poultry, eggs Determination of wax weight. Determination of wax weight.
13th	49. 50. 51. 52.	Packaging of Meat, Fish , Poultry, eggs Packaging of Bakery and confectionary products Determination of drop test of food package Determination of drop test of food package
14th	53. 54. 55. 56.	Packaging of Bakery and confectionary products Packaging of fresh fruits and vegetables Visit to relevant industries. Visit to relevant industries.
15th	57. 58. 59. 60.	Packaging of fresh fruits and vegetables. Form fill and seal machines, vacuum packs unit Introducing the students to the latest trends in packaging by consulting the websites and magazines Introducing the students to the latest trends in packaging by consulting the websites and magazines
16th	61. 62. 63. 64.	SESSIONAL-III Tetra pack unit, shrink pack unit Packaging laws and standards Packaging laws and standards