

BHAI GURDAS INSTITUTE OF ENGINEERING AND TECHNOLOGY
SANGRUR
Department of Food Technology

LESSON PLAN

Name: Ms. Swati Priyadarshi

**Subject name: Principles and
Methods of Food Processing**

Branch/ Semester: 4th Sem.

Subject code: BTFT 222-19

Sr. No.	Lecture no.	Topics to be covered	Week/ date	Teaching aids	Remarks
1.	L-1	Unit I: Basic principles and importance of food processing	1st week	Black board & PPT	
2.	L-2	importance of food preservation; techniques of preservation		Black board & PPT	
3.	L-3	Drying and freezing, Use of preservatives		Black board & PPT	
4.	L-4	Sugar and salt preservation	2nd week	Black board & PPT	
5.	L-5	chemical preservatives in food, smoking, sulphur fumigation and pickling		Black board & PPT	
6.	L-6	classification of foods, types of food spoilage		Black board & PPT	
7.	L-7	Food Spoilage effects on food quality	3rd week	Black board & PPT	
8.	L-8	Unit II: principles of thermal processing		Black board & PPT	
9.	L-9	pasteurization and sterilization, food irradiation, microwave heating		Black board & PPT	
10.	L-10	microbial destruction in batch and continuous sterilization	4th week	Black board & PPT	
11.	L-11	methods of heat transfer, heat resistance in microorganisms, ultra violet (UV) rays in food		Black board & PPT	

12.	L-12	factors affecting heat resistance in micro-organisms, Thermal Death Time (TDT) curve	5th week	Black board & PPT	
13.	L-13	ultra-heat treatment UHT processing; Industrial applications of canning and bottling.		Black board & PPT	
14.	L-14	commercial canning operation, spoilage of canned food and its quality evaluation		Black board & PPT	
15.	L-15	Unit: 3 low temperature requirement for different foods, refrigeration	6th week	Black board & PPT	
16.	L-16	components of refrigerators, chilling and freezing of food		Black board & PPT	
17.	L-17	freezing principles, low and fast freezing, freezing process	6th week	Black board & PPT	
18.	L-18	determining freezing load, refrigeration systems		Black board & PPT	
19.	L-19	freezing rate, estimation of freezing time of foods		Black board & PPT	
20.	L-20	types of freezers, thawing of frozen food, Cold preservation	7th week	Black board & PPT	
21.	L-21	Unit IV: concept of evaporation, concentration, and dehydration		Black board & PPT	
22.	L-22	drying equipments, types of dryers,		Black board & PPT	
23.	L-23	evaporation and functions, continuous, multiple effect, falling and rising film evaporators	8th week	Black board & PPT	

24.	L-24	water activity (a_w) in foods: role of water activity in food preservation, control of a_w by addition of solutes and moisture removal		Black board & PPT	
25.	L-25	moisture sorption isotherm, measurements of water activity; intermediate moisture food	9th week	Black board & PPT	

(Course Incharge)