

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

**LESSON PLAN**

**Name: Ms. Amandeep Kaur**

**Subject name: Technology of Milk and Milk Products**

**Branch/ Semester: 6<sup>th</sup> Sem.**

**Subject code: BTFT 321-19**

<b>Sr. No.</b>	<b>Lecture no.</b>	<b>Topics to be covered</b>	<b>Date /week</b>	<b>Teaching aids</b>	<b>Remarks</b>
1.	L-1	<b>Unit I:</b> Current status of Indian dairy sector	<b>1<sup>st</sup> Week</b>	Black board & PPT	
2.	L-2	production, utilization and per capita consumption of milk		Black board & PPT	
3.	L-3	Milk: definition, types of milk	<b>2<sup>nd</sup> Week</b>	Black board	
4.	L-4	composition, nutritive value of milk and milk products		Black board	
5.	L-5	Milk properties: physical, chemical and thermal properties like density, acidity, redox potential, specific gravity,	<b>3<sup>rd</sup> Week</b>	Black board & PPT	
6.	L-6	Milk processing: reception, pasteurization (LTLT, HTST), homogenization		Black board	
7.	L-7	sterilization, aseptic packaging.	<b>4<sup>th</sup> Week</b>	Black board	
8.	L-8	<b>Unit II:</b> Cream separation and related equipments; Butter: definition,		Black board	
9.	L-9	butter-making process, overrun, defects in cream & butter	<b>5<sup>th</sup> Week</b>	Black board & PPT	
10.	L-10	Technology of ice-cream: composition of ice-cream		Black board	
11.	L-11	methods of preparation; Evaporated and concentrated milks	<b>6<sup>th</sup> Week</b>	Black board	
12.	L-12	water and solid balance, boiling point elevation		Black board & PPT	
13.	L-13	Dried milks: dried whole milk, dried non-fat milk/SMP		Black board	
14.	L-14	milk drying system (film, roller, drum, spray, foam spray drying).	<b>7<sup>th</sup> Week</b>	Black board & PPT	

15.	L-15	<b>Unit III:</b> Cultured milk and milk products: types and manufacturing process; Cheese		Black board & PPT	
16.	L-16	technology of different varieties of cheese manufacturing (cheddar & mozzarella)	<b>8<sup>th</sup> Week</b>	Black	
17.	L-17	changes during ripening; manufacture of processed cheese, defects in cheese		Black board & PPT	
18.	L-18	rabri, kulfi, srikhand, mawa, channa, paneer, ghee	<b>9<sup>th</sup> Week</b>	Black board	
19.	L-19	<b>Unit IV :</b> Value addition and by-products utilization: fortified milk		Black board	
20.	L-20	milk products such as minerals and vitamins fortified milk; Low fat, low lactose and low cholesterol milk products	<b>10<sup>th</sup> Week</b>	Black board	
21.	L-21	Utilization of whey, caseinates etc		Black board	
22.	L-22	Cleaning and disinfections in a dairy industry: terms, definitions, cleaning and disinfection agents and processes	<b>11<sup>th</sup> Week</b>	Black board & PPT	
23.	L-23	Cleaning in Place (CIP) and Cleaning out of Place (COP).		Black board & PPT	

(Course Incharge)