

LECTURE SCHEDULE

Department: Dairy Technology

Courses No.: DTT-222

Courses Title: Ice-Cream and Frozen Desserts Credit Hrs.: 3 (2+1)

Course Teacher: Bipin Kumar Singh

Theory

S. No.	Topics to be covered	No. of Classes
1	History, development and status of ice cream industry.	01
2	Definition, classification and composition.	02
3	Standards of ice cream and other frozen desserts.	01
4	Stabilizers and emulsifiers-their classification, properties and role in quality of ice cream.	02
5	Technological aspects of ice cream manufacture.	02
6	Thermodynamics of freezing and calculation of refrigeration loads.	02
7	Types of freezers, refrigeration control / instrumentation.	01
8	Hygiene, cleaning and sanitation of ice cream plant.	02
9	Effect of process treatments on the physico-chemical properties of ice-cream mixes and ice cream.	02
10	Processing and freezing of ice-cream mix and control of over run.	02
11	Packaging, hardening, storage and shipping of ice-cream.	02
12	Defects in ice cream, their causes and prevention.	02
13	Recent advances in ice-cream industry (flavourings, colourings, fat replacers, bulking agents) and plant management.	02
14	Nutritive value of ice cream.	02
	Total	25

Practical (DTT-222)

S. No.	Practical to be covered	No. of Classes
1	Calculation of standardization of ice-cream mixes.	03
2	Manufacture of plain and fruit flavoured ice-cream.	02
3	Manufacture of chocolate, fruit and nut ice cream.	02
4	Preparation of sherbets/ices.	01
5	Preparation of soft served and filled ice-cream.	02
6	Manufacture of kulfi.	01
7	Study of continuous and batch type freezers.	02
8	Manufacture of ice-cream by continuous process.	01
9	Determination of overrun in ice cream.	01
	Total	15