

▪ SEMESTER:- IV

▪ COURSE NO.:- FST-2411

▪ COURSE TITLE:- PROCESSING OF MILK & MILK

▪ CREDITS:- 3(2+1)

PRODUCTS

➤ THEORY

NO. OF UNITS	TOPICS	NO. OF LECTURES
1	<i>Milk – Definition, composition of milk from different species, colostrum.</i>	2
2	<i>Physico – Chemical properties of milk.</i>	2
3	<i>Nutritive value of milk and milk products.</i>	2
4	<i>Effect of heat on milk.</i>	2
5	<i>Processing of milk- pasteurization by LTHT and HTST and UHT – filtration, UF and RO, clarification, cream separation, homogenization and heat processing. Boiling,sterilization</i>	2
6	<i>Classification of milk products.</i>	2
7	<i>Manufacture of butter and butter oil (Ghee)</i>	2
8	<i>Fermented milks</i>	2
9	<i>Preparation of yoghurt and cheese.</i>	2
10	<i>Ice-cream – Method of manufacture with role of ingredients.</i>	2
11	<i>Manufacture of indigenous milk products – ghee, khoa, chhanna, paneer, dahi and shrikand.</i>	2
12	<i>Indian milk confectionary – Khoa and Chhanna based sweets.</i>	2
13	<i>By products of dairy Industry and their utilization.</i>	2
14	<i>Packaging and storage of milk and milk products – Defects – Standards.</i>	2
	TOTAL	28

➤ PRACTICALS

NO. OF UNITS	TOPICS	NO. OF EXPT.
1	<i>Sampling and analysis of milk – physico chemical properties and composition, DMC and DYC reduction tests, presence of adulterants and preservatives.</i>	2
2	<i>Standardization of milk for markets</i>	1
3	<i>Clarification and separation of milk</i>	1
4	<i>Heat processing of milk – Pasteurization</i>	1
5	<i>Preparation of butter and ghee</i>	2
6	<i>Ice-cream preparation</i>	2
7	<i>Preparation of dahi, shrikhand, lassi etc</i>	2
8	<i>Preparation of khoa and khoa based sweets</i>	2
9	<i>Preparation of channa, paneer and chana based sweets</i>	2
10	<i>Visit to Dairy plant</i>	1
	TOTAL	16

➤ *Reference Books:*

- *Outlines of dairy Technology* *Sukumar- De , Oxford University Press, New Delhi.*
- *The Fluid Milk Industry* *J.L.Henderson. 3rd edition AVI Publishing Co. West port, Conn. USA.*
- *Principles of Dairy Processing* *J.N.Warner, Wiley Eastern Ltd, New Delhi.*
- *Indian Dairy Products* *K.S.Rangappa and K L Acharya Asia Publishing house, Bombay.*
- *Judging of Dairy Products* *J.A.Nelson and Trout, The Olsen publishing Co. Milwaukee, Wisconsin, USA.*
- *Milk processing and Dairy Products Industries.* *EIRI Board of consultants & Engineers India Research Institute, Delhi.*
- *Technology of Milk Processing* *Q. A. Khan & Padmanabhan.*