

LECTURE SCHEDULE

Department: Dairy Technology

Courses No.: DTT-321

Courses Title: Sensory Evaluation of Dairy Products Credit Hrs: 3 (2+1)

Course Teacher: Bipin Kumar Singh

Theory

S. No.	Topics to be covered	No. of Classes
1	Introduction, definition and importance of sensory evaluation in relation to consumer acceptability and economic aspects.	01
2	Terminology related to sensory evaluation. Design and requirements of a sensory evaluation laboratory.	02
3	Basic principles: senses and sensory perception.	01
4	Physiology of sensory organs.	01
5	Classification of tastes and odours, threshold value. Factors affecting senses, visual, auditory, tactile and other responses.	02
6	Fundamental rules for scoring and grading of milk and milk products.	01
7	Procedure and types of tests – difference tests (Paired comparison, due-trio, triangle) ranking, scoring, hedonic scale and descriptive tests.	02
8	Panel selection, screening and training of judges.	01
9	Requirements of sensory evaluation, sampling procedures	02
10	Factors influencing sensory measurements.	01
11	Milk: score card and its use. Judging and grading of milk, defects associated with milk.	02
12	Cream: desirable attributes and defects in cream, Score card for cream, sensory evaluation of different types of cream.	02
13	Butter: Specific requirements of high grade butter, undesirable attributes of butter, butter score-card, sensory evaluation of butter.	02
14	Ghee: grades of ghee, special requirements of quality ghee, defects in ghee, sensory evaluation of ghee.	02
15	Fermented milks: desirable and undesirable characteristics of fermented milks, sensory evaluation of dahi, yoghurt, chakka, srikhand, lassi and other fermented drinks.	02
16	Frozen dairy products: desirable and undesirable characteristics of frozen dairy products. Sensory evaluation of ice cream, kulfi and milk sherbets.	02
17	Cheese: sensory Quality attributes of some common cheese varieties and their defects, score card for cheese. Sensory evaluation and grading for cheddar, cottage and other varieties of cheeses.	02
18	Dried dairy products: desirable and undesirable characteristic of dried milks. Sensory evaluation and grading of dry milk products.	02
19	Concentrated milks: desirable attributes and defects. Sensory evaluation and grading of evaporated and condensed milk.	01
20	Heat desiccated Indian milk products: desirable and undesirable characteristics. Sensory evaluation of khoa and khoa based sweets.	02

21	Acid coagulated Indian milk products: desirable and undesirable characteristics. Sensory evaluation of paneer, chhana and chhana based sweets.	02
22	Consumer acceptance studies: Objectives, methods, types or questionnaires, development of questionnaires, comparison of laboratory testing and consumer studies, limitations.	02
23	Interrelationship between sensory properties of dairy products and various instrumental and physico-chemical tests.	01
	Total	38

Practical (DTT-321)

S. No.	Practical to be covered	No. of Classes
1	Determination of threshold value for basic tastes.	01
2	Determination of threshold value for various odours.	01
3	Selection of sensory evaluation panel.	01
4	Training of judges, for recognition of certain common flavour and texture defects using different types of sensory tests.	01
5	Sensory evaluation of milk and cream.	01
6	Sensory evaluation of butter and ghee.	01
7	Sensory evaluation of condensed and evaporated milk. Sensory evaluation of milk powders.	02
8	Sensory evaluation of cheese and related products.	02
9	Sensory evaluation of frozen products.	02
10	Sensory evaluation of khoa and khoa-based sweets.	02
11	Sensory evaluation of channa and channa based sweets. Sensory evaluation of dahi and fermented dairy products.	02
12	Preparation of milk and milk products with defects, techniques for simulation. Novel techniques of sensory evaluation.	02
	Total	18

Suggested Reading:

1. Sensory Evaluation of Food: Statistical Methods and Procedures, Michael O'Mahony.
2. Sensory Evaluation Techniques, Gail Vance Civille, B. Thomas Carr.
3. Novel Techniques in Sensory Characterization and Consumer Profiling, Paula Varela, Gastón Ares.