

Department of Food Sciences
University of the Punjab, Lahore
Course Outline



Programme	B.Sc. (Hons.) Food Science & Technology	Course Code	FST-204	Credit Hours	3(2-1)
Course Title	SENSORY EVALUATION AND FOOD PACKAGING				
Course Introduction					
<p>The course will provide us basic knowledge on principles of sensory and consumer science including testing methods, understanding the role of sensory evaluation in marketing of food products and factors effecting it, basic knowledge of food packaging and types of packaging material, basic concepts concerning selection of packaging material for different types of products and idea of novel food packaging techniques.</p>					
Learning Outcomes					
<p>On the completion of the course, the students will:</p> <ol style="list-style-type: none"> 1. Examine sensory properties of food through lab experiments 2. Use terminologies, appropriate to the field of sensory analysis, correctly and contextually 3. Formulate products that meet specified sensory requirements 4. Define the role of packaging material for various food products. 5. Elaborate principles of food packaging for extending the shelf life of various food products under different storage conditions. 6. Have knowledge of testing procedures of different types of packaging material. 					
Course Content				Assignments/Readings	
Week 1	Unit-I				
	1.1 Overview				
	1.2 physiological and psychological foundations.				
Week 2	Unit-II				
	2.1 General requirements for sensory testing Unit-III				
Week 3	2.2 Organization and evaluation of sensory evaluation program				
	Unit-III				
Week 4	3.1 Difference, Discrimination testing				
	3.2 Scaling, Threshold methods, Descriptive analysis				
Week 4	Unit- IV				
	4.1 Effective texture evaluation				
4.2 Color and flavor evaluation.					

Week 5	Unit-V	
	5.1 Consumer field test	
Week 6	5.2 Questionnaire design	
	Unit-VI	
Week 7	6.1 Statistical procedures	
	6.2 Conclusion	
Week 8	Unit-VII	
	7.1 Food packaging Introduction and needs	
Week 9	7.2 Functions, Systems and Development	
	Unit-VIII	
Week 10	8.1 Packaging type Primary	
	8.2 Secondary and tertiary type	
Week 11	Unit-IX	
	9.1 Rigid containers	
Week 12	9.2 Flexible packaging	
	Unit-X	
Week 13	10.1 Physical	
	10.2 Chemical	
Week 14	Unit-XI	
	11.1 retail containers	
Week 15	11.2 shipping containers.	
	Unit-XII	
Week 16	12.1 product and distributon	
	12.2 Marketing, Packaging operation and cost	
Week 17	Unit-XIII	
	13.1 inks	
Week 18	13.2 adhesives	

Week 14	Unit-XIV	
	14.1 Filling and labeling	
	14.2 Safety and legislation.	
Week 15	Unit-XV	
	15.1 Novel food	
	15.2 Packaging techniques	
Week 16	Unit-XVI	
	16.1 Importance	
	16.2 Types and Methods	
PRACTICAL		
Week 1	Taste, odor identification, trigeminal sensations, taste modifiers.	
Week 2	Use of sequential testing in selecting judges.	
Week 3	Training of panelists Difference tests such as triangle test, paired comparison test, duo-trio test. Color, threshold determination, just noticeable difference.	
Week 4	R-Index rating and ranking.	
Week 5	Category scaling Determining an ideal level of an ingredient.	
Week 6	Magnitude estimation.	
Week 7	Descriptive analysis of different foods.	
Week 8	Consumer test and analysis.	
Week 9	Identification of packaging materials used for various food products.	

Week 10	Requirements of foods for specific packaging material.	
Week 11	Canning in metal containers. Can testing	
Week 12	Determination of shelf-life in various packaging materials.	
Week 13	Vapor permeability test.	
Week 14	Determination of film thickness.	
Week 15	Visit to packaging industries.	
Week 16	Visit to packaging industries.	

Textbooks and Reading Material

1. Herbert, S., Rebecca, B. & Heather, T. (2020). Sensory Evaluation Practices. (5th ed.). Academic Press.
2. Kemp, S.E., Hollywood, T. & Hort, J. (2009). Sensory Evaluation: A Practical Handbook. John Wiley & Sons Inc., New York, USA.
3. Chambers, E. & Wolf, M.B. (2005). Sensory Testing Methods. American Society for Testing and Materials, West Conshohocken, Pennsylvania, USA.
4. Stone, H. & Sidel, J.L. (2004). Sensory Evaluation Practices. Elsevier Academic Press, California, USA.

Teaching Learning Strategies

1. Lectures
2. Discussions
3. Presentations
4. Quiz
5. Assignments
6. Short videos/films will be shown on occasion.

Assessment

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.

3.	N	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
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