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

Programme	B.Sc. (Hons.) Food Science & Technology	Course Code	FST-403	Credit Hours	3(2-1)
Course Title	**BAKERY PRODUCTS TECHNOLOGY**				

Course Introduction

This course will provide:

1. Basic knowledge of ingredients and additives used for bakery products.
2. Basic concepts concerning recipes of different products.
3. Skills on manufacturing technology of different bakery products.

Learning Outcomes

On the completion of the course, the students will:

1. Produce various bakery products under quality control parameters.
2. Demonstrate fundamental concepts related to baking technology.
3. Apply principles of baking at industry and role of major ingredients to be added.

	Course Content	Assignments/Readings
Week 1	**Unit-I** 1.1 Emulsions	
	1.2 Oils & fats	
Week 2	**Unit-II** 2.1 Proteins	
	2.2 Starch	
Week 3	**Unit-III** 3.1 Water	
	3.2 Grains	
Week 4	**Unit-IV** 4.1 Milling	

	4.2 Grades of flours	
Week 5	**Unit-V** 5.1 Types of Flours	
	5.2 Chorleywood bread flour	
Week 6	**Unit-VI** 6.1 Patent, soft, whole meal	
	6.2 Brown and low moisture flours	
Week 7	**Unit-VII** 7.1 Leavening agent's	
	7.2 Food starch excluding flour, fats	
Week 8	**Unit-VIII** 8.1 Emulsifiers	
	8.2 Colors	
Week 9	**Unit-IX** 9.1 Flavors	
	9.2 Antioxidants	
Week 10	**Unit-X** 10.1 Sugars	

	10.2 Dairy ingredients	
Week 11	**Unit-XI** 11.1 Gums and gelling agents	
	11.2 Flour treatments	
Week 12	**Unit-XII** 12.1 Chemistry of dough development	
	12.2 Making of bread	
Week 13	**Unit-XIII** 13.1 Types of breads	
	13.2 Variants of bread	
Week 14	**Unit-XIV** 14.1 Biscuits	
	14.2 Wafers	
Week 15	**Unit-XV** 15.1 Cakes	
	15.2 Other chemically leavened products	
Week 16	**Unit-XVI** 16.1 Dietetics bakery products	
	16.2 Quality control in bakery	
PRACTICAL		

Week 1	**1. Preparation of bakery products** Breads, pastry	
Week 2	**2. Preparation of bakery products** Breads, pastry	
Week 3	**3. Preparation of bakery products** Biscuits, wafers	
Week 4	**4. Preparation of bakery products** Biscuits, wafers	
Week 5	**5. Preparation of bakery products** Cakes and chemically leavened products	
Week 6	**6. Preparation of bakery** Cakes and chemically leavened products	
Week 7	**7. Effect of different ingredients on bakery products.**	
Week 8	**8. Effect of different ingredients on bakery products.**	
Week 9	**9. Effect of different ingredients on bakery products.**	
Week 10	**10. Effect of different ingredients on bakery products.**	
Week 11	**11. Effect of different ingredients on bakery products.**	
Week 12	**12. Visit to different baking plants.**	
Week 13	**13. Visit to different baking plants.**	
Week 14	**14. Visit to different baking plants.**	

Week 15	**15. Visit to different baking plants.**	
Week 16	**16. Visit to different baking plants.**	

Textbooks and Reading Material

1. Weibiao, Z. & Hui, Y.H. (2014). Bakery Products Science and Technology. (2nd ed.). Wiley Blackwell.
2. Edward, W.P. (2007). The Science of Bakery Products. The Royal Society of Chemistry, Cambridge, UK. UK.
3. Hui, Y.H., Corke, H., Leyn, I.D. & Cross, N. (2006). Bakery Product Science and Technology. Blackwell Pub. Co., London, UK.
4. Khetarpaul, N., Grewal, R.B. & Jood, S. (2005). Bakery Science and Cereal Technology. Daya Pub. House, New Delhi, India.

Teaching Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments: Types and Number with Calendar

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

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.	Final Assessment	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.