

▪ SEMESTER:- III

▪ COURSE NO.:- FST-237

▪ COURSE TITLE:- WHEAT MILLING& BAKING

▪ CREDITS:- 3(2+1)

TECHNOLOGY

➤ THEORY

NO. OF UNITS	TOPICS	NO. OF LECTURES
1	<i>Wheat – importance, production varieties</i>	1
2	<i>Types of wheat, grading and quality of wheat</i>	2
3	<i>Structure of wheat, chemical constituents, their distribution</i>	2
4	<i>Physico-chemical and Rheological properties</i>	2
5	<i>Enzymes in wheat, damage wheat</i>	1
6	<i>Conditioning of wheat – principles and methods of conditioning</i>	2
7	<i>Milling of wheat – Roller flour milling process Break rolls, reduction rolls, The design and operation Wheat milling process</i>	4
8	<i>Products of wheat milling industry Flour grades, Supplementation, Fortification</i>	3
9	<i>Flour additives, flour improvers, Bleaching, Oxidizing agents</i>	3
10	<i>Bakery products, role of bakery ingredients (major and minor), from hard wheat: bread processes of bread making using straight and sponge, dough methods role of each ingredient, quality control Testing of raw material Testing of final product Bread faults, staleness, roppynes</i>	6
11	<i>Baked Products from soft wheat:cookies, crackers, biscuits, cakes types, ingredients, process, causes, remedy</i>	2
12	<i>Other bakery products: using very hard wheat. pizza, pastry and its types. Macaroni products: Including spaghetti, noodles, vermicelli-process. Nutritional improvement of bakery products</i>	2
13	<i>Setting of bakery unit, bakery norms, specifications for raw materials</i>	3

	<i>Packaging, marketing of products, project report on bakery</i>	
	TOTAL	33

➤ PRACTICALS

NO. OF UNITS	TOPICS	NO. OF EXPT.
1	<i>Classification of wheat based on physico-chemical properties</i>	1
2	<i>Conditioning of wheat</i>	1
3	<i>Milling of wheat</i>	1
4	<i>Quality Testing of flour& yeast</i> <i>A) - Falling number and α- amylase activity.</i> <i>B) - Sedimentation value.</i> <i>C) - Pelshenke value.</i> <i>D) - Rheological Tests.</i> <ol style="list-style-type: none"> 1. <i>Farinograph.</i> 2. <i>Mixograph</i> 3. <i>Extensiograph.</i> 4. <i>Alveograph.</i> 	4
5	<i>Manufacture of bread, types, faults, remedies, shelf life bread, quality of bread</i>	4
6	<i>Test Baking: biscuits, cookies, crackers, buns:Types and quality</i>	2
7	<i>Other baked products- pastry, pizza</i>	1
8	<i>Visit to wheat milling industry, visit to bakery</i>	1
	TOTAL	15

➤ *Reference Books:*

- *Bakery Science and Cereal Technology* *Khetarpaul*
- *Technology of Cereals* *Kent*
- *Bread* *Spensor*
- *Flour Milling Process* *Scott.*

