

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E Semester: 4

FOOD PROCESSING TECHNOLOGY

Subject Name TECHNOLOGY OF FOOD GRAINS

Sr.No	Course contents
1.	Properties of Food Grains: Supply chain of food grains, Hydrothermal treatment of grains-physico-thermal properties, biochemical properties, physico-chemical properties, Effect of different factors on various properties.
2.	Rice: Parboiling and milling of paddy, Aging of rice, Rice enrichment, Processed rice products.
3.	Wheat: Wheat and its quality characteristics for milling into flour and semolina, Flour milling, Turbo grinding and air-classification, Flour grades and their suitability for baking purposes, Assessment of flour quality and characteristics.
4.	Corn and Other cereals: Dry and wet milling of corn, corn starch and its conversion products, Malting of Barley, Milling of millets.
5.	Milling of Pulses: Traditional milling, Commercial milling and Modern methods of milling. Factors affecting milling of pulses, Pulse based extruded products.
6.	Processing of Oilseeds: Pre-treatment, Oil extraction methods, Processing of extracted oil: Refining, Hydrogenation, Processing of deoiled cake: Protein rich products, Soybean processing.

Reference Books:

1. Post harvest technology of Cereals, Pulses and Oilseeds by Chakravarti A. Oxford Publishing.
2. Cereal Technology by Potter NN. AVI Publication.
3. Unit Operations of Agricultural Processing by K.M. Singh and K.K. Sahay
4. Bakery Science & Cereal Technology by Neelam Khatarpaul, Rajbala Grewal & Sudesh Jood (Daya publishing house).
5. Bakery Technology and Engineering by Matz SA.CBS Publication.
6. Manuals on Rice and its processing by CFTRI Mysore and IIT Kharagpur.