

GAUTAM BUDDHA UNIVERSITY, GREATER NOIDA

SYLLABUS FOR M.TECH. FPT: GBU-ET

Part-I: Introduction to Food Technology

Food processing industries/institutions in India, Food attributes colour, texture, flavour, Nutritive value and consumer preferences, Causes of spoilage, sources of microbial contamination of foods, food borne illness, water activity and its relation to spoilage of microbial contamination of food, spoilage of processed food and their detection. Principles and methods of food preservation. Food fortification, composition and related quality factors for processing, method of food preservation and processing, pasteurization, canning dehydration freezing, freeze drying, microwave, irradiation and chemical additives, refrigerated and modified atmosphere storage, aseptic preservation, hurdle technology, hydrostatic pressure technology and microwave processing. Milk and milk products in India UHT, toned, fortified, reconstituted and flavoured milk. Anti-nutritional factor in grain and oilseeds, traditional and non-traditional food like bread, biscuits, cakes, doughnuts, buns, pasta, extruded, confectionary products, breakfast cereals and snacks.

Fermentation technology, fermented food products, microbial spoilage of foods, bacterial growth curve.

Part-II: Food Quality and Standard

Objective, importance and function of quality control. Quality system and tools used for quality assurance including control charts, acceptance and auditing inspection, critical control points, reliability, safety, recall . The principles and practices of food plant sanitation. Food and hygiene regulations. Environment and waste management. Total quality management, good management practices, HACCP and codex in food. Structure and function of food authority, FSSAI, Non-destructive food quality evaluation methods.