

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E Semester: 3

Food Processing & Technology

Subject Code

Subject Name INTRODUCTION TO FOOD PROCESSING TECHNOLOGY

| Sr.No | Course contents |
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| 1. | Present State Of Food Industry In India & Abroad: Prospects for future growth in India. |
| 2. | Food as a Source of Nutrients: Function of Food-Physiological, Social, Psychological and specific. Recommended daily allowances for nutrients. |
| 3. | Classifications and Composition of Foods: Plant Foods - Cereals and Millets, Legumes and Pulses, Vegetables, Fruits, Nuts & Oil Seeds, Condiments & Spices. Animal Foods - Eggs, Milk and its products, Meat and Meat Products, Poultry Sea foods. Soft drinks. Semi Processed and Ready to Eat Foods. |
| 4. | Steam Tables, Psychometric Chart: Basic methods and applications |
| 5. | Fundamentals of Mass and Energy balance |
| 6. | Introduction to Units Operation and Equipment and Machinery deployed in Food Processing Industry: Cleaning, Grading, Decorticating, Disintegrating, trimming, peeling, cutting balancing, pulping, size reduction, separation. |
| 7. | Drying and Evaporation: Forming, Heat exchanging, mixing, distillation, extraction, filtration and centrifugation, Material Handling, Pumping and Packaging. |
| 8. | Process Control and Instrumentation: Need and Application. |
| 9. | Food Deterioration |
| 10. | Food Preservation and Processing: Basic Concepts |
| 11. | Food Product Development and Design. |
| 12. | Quality control, Food Evaluation Methods. |
| 13. | Marketing of Foods and Food Products and Statutory laws and requirements of Foods. |
| 14. | Entrepreneurship and industrial training concept. |

Reference Books:

1. Food Preservation and Processing, Manoranjan Kalia & Sangita Sood.
2. Food Science, N. N. Potter, C B S Publishers & Distributors.
3. Food Facts & Principles, N. Shankuntala M.& M. Shadakshara S., Wiley Eastern Limited.
4. Unit Operations, K. M. Sahay and K. K. Singh.
5. Engineering of Dairy & Food Products, A. W. Farral.