

| MFT304 Bakery and Confectionery Technology | |
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| Teaching Scheme Lectures:3hrs./week Tutorials:1 hr./week Credits:4 | ExaminationScheme InternalAssessment Marks[IAM]:30 [Class Test: 12, Teachers assessment:6,Attendance: 12] EndSemesterMarks[ESM]:70 |

CourseObjective:

1. To acquaint students with production and processing technologies for product development and value addition of various bakery and confectionery products.

DetailedSyllabus

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| Module1 |
| Principles of Baking Raw Material and their Role – flour, leavening agents, sugars, fats, additives, spice,Types of Bakery Products and Technology for their Manufacture – dough and batters; cakes, pies, pastries, bread, biscuits Icings and Fillings. |
| Module2 |
| Quality Parameters of Bakery Products - chemistry of dough and batters;rheological testing and interpretation of data; sensory evaluation Staling and Nutrient Losses in Bakery Products ,Sanitation and Hygiene in a Bakery Unit Equipment used in the Bakery Industry. |
| Module3 |
| Principles of Confectionery Manufacture.Raw Material and their Role – interfering agents, inversion of sugars, etc. Types of Confectionery Products and Technology for their Manufacture.Quality Parameters of Confectionery Products.Nutrient and other Losses in Confectionery Products.Sanitation and Hygiene in a Confectionery Unit .Equipment used in the Confectionery Industry. |
| Module4 |
| Sugar- Manufacturing of sugar, types of sugar, byproducts, jaggery, honey.. Additional ingredients: colours, flavors, gums, pectin and gelatin, chocolate processing. Types: imitation chocolate, milk chocolate. Crystalline and non crystalline candies. |
| Module5 |

Chocolate – raw material, types, and manufacture, Ingredients of chocolate-sucrose, invert sugars, corn syrup, non-nutritive sweeteners, sugar substitutes

Chewing Gum - raw material, types, and manufacture

Pan Coating – hard and soft panning; problems in coating; glazing, polishing, and tableting Nutritional Value, Quality Parameters.

Suggested readings

1. Samuel, A.M.(1996) “ *The Chemistry and Technology of Cereals as Food and Feed* “, CBS Publisher & Distribution, New Delhi.

2. Pomeranz, Y.(1998) “ *Wheat : Chemistry and Technology*”, Vol 1,3” Am. Assoc. Cereal Chemists. St. Paul, MN, USA.

3. Hosney, R.C.(1986) “ *Principles of Cereal Science and Technology*”, Am. Assoc. Cereal Chemists, St. Paul, MN, USA.

4. Pomeranz, Y. (1993) “ *Advances in Cereal Science and Technology*”, Am. Assoc. Cereal Chemists St.Paul, MN, USA.

5. Dubey SC. 2002. Basic Baking. The Society of Indian Bakers, New Delhi.

CourseOutcomes

1. Ability to understand the basic concepts of baking and role of various raw materials involved.

2. Ability to understand chemistry of dough chemistry and rheological testing.

3. Acquire knowledge of Principles of Confectionery its manufacture. and their Role.

4. Understand the sugar ,its type and related processing.

5. Understand the chocolate manufacturing, chewing gum and pan coating basics.

