

MFT308 Snack Food Technology	
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 impart knowledge related to various snack foods and their manufacturing techniques.

DetailedSyllabus

Module1
<p>Extrusion: Introduction to extruders and their principles, types of extruders. Extruders in the food industry: History and uses. Single screw extruder: principle of working, factors affecting extrusion process, co-kneaders. Twin screw extruder: Feeding, screw design, screw speed, screw configurations. Pre-conditioning of raw materials used in extrusion process: operations and benefits and devolatilization. Chemical and nutritional changes in food during extrusion. Addition and subtraction of materials, shaping and forming at the die. Post-extrusion processes- colouring, flavouring and packaging of extruded snack foods.</p>
Module2
<p>Breakfast cereals: Introduction and classification (flaked cereals, oven puffed cereals, gun puffed cereals, shredded products). Breakfast cereal-manufacturing processes (traditional and modern methods), High shear cooking process and steam cookers.</p>
Module3
<p>Texturized vegetable protein: definition, processing techniques. Direct expanded (DX) and third generation (3G) snacks: types. Concept of junk & fried foods and their impact on human health.</p>
Module4
<p>Technology for grain-based snacks: Whole grains- roasted, toasted, puffed, popped, flaked. Coated grains- salted, spiced and sweetened. Formulation, processing and quality assessment of chips and wafers, papads, instant premixes of traditional Indian snack foods.</p>
Module5
<p>Technology for fruit and vegetable-based snacks- chips, wafers; Technology for coated nuts- salted,</p>

spiced and sweetened chikkies. Equipments for frying, baking, drying, toasting, roasting, flaking, popping, blending, coating and chipping.

Suggested readings

1. Booth, R. G. (1997). Snack Food: CBS, New Delhi.
2. Raymond, W. L. & Rooney, L. W. (2001). Snack Foods Processing: CRC. London.
3. Lusas, E. W. & Rooney, L. W. (2015). Snack Foods Processing: CRC. London.
4. Guy, R. (2001). Extrusion Cooking: Technologies and Applications: Woodhead, USA.
5. Riaz, M. N. (2000). Extruders in Food Applications: Technomic, Lanchester.

CourseOutcomes

1. Students shall be able to understand Basics of Preparing Extruded Snack Foods Items along with working of equipments related to extrusion of Food Products.
2. Students shall be able to understand preparation of Breakfast Snacks in particular cereal based Snacks Food Items.
3. Students shall be able to understand preparation of Texturised vegetable protein, concept of junk food and fried foods.
4. Students shall be able to understand preparation of Grain based Snacks Food Item.
5. Students shall be able to understand preparation of Fruits & Vegetables based Snack Item along with introduction of related equipments.

