SEMESTER S7

SNACK FOOD TECHNOLOGY

Course Code	PEFTT756	CIE Marks	40
Teaching Hours/Week (L: T:P: R)	3:0:0:0	ESE Marks	60
Credits	3	Exam Hours	2 Hrs. 30 Min.
Prerequisites (if any)	None	Course Type	Theory

Course Objectives:

1. To acquaint students with the principle involved in the manufacture of commercial snack foods
2. To familiarize students with equipment of importance in the snack food industry

SYLLABUS

Module No.	Syllabus Description	Contact Hours
1	Snack foods: Types, specifications, compositions, ingredients, formulations, processing, equipment, packaging, storage and quality testing Snack food seasonings; Breakfast cereals, macaroni products and malts: Specifications, compositions, ingredients, formulations, processing, equipment, packaging, storage and quality testing.	9
2	Grain-based snacks- Technology for Whole Grains Snacks – roasted, toasted, puffed, popped, flaked, Technology for Coated Grain Snacks – salted, spiced, sweetened, Technology for Batter-Based and Dough-Based Products, Technology for Formulated Products – chips, wafers, papads, instant pre mixes	9
3	Horticulture produce-based snacks- Technology for Fruit-Based Snacks, Technology for Vegetable-Based Snacks, Technology for Coated Nuts Extruded snacks- Formulation and Processing Technology, Colouring and Flavouring, Packaging, Machinery and Equipment, Use, and Care	9
4	Pulse based snacks-technology and processing formulations, Instant Food Pre-Mixes, Shelf-Life and Quality Characteristics of Snack Foods, regulations and standards of snack foods, permitted additives in snack foods.	9

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Course Assessment Method
(CIE: 40 marks , ESE: 60 marks)

Continuous Internal Evaluation Marks (CIE):

Attendance	Assignment/ Microproject	Internal Examination-1 (Written)	Internal Examination- 2 (Written)	Total
5	15	10	10	40

End Semester Examination Marks (ESE)

In Part A, all questions need to be answered and in Part B, each student can choose any one full question out of two questions

Part A	Part B	Total
• 2 Questions from each module. • Total of 8 Questions, each carrying 3 marks **(8x3 =24marks)**	• Each question carries 9 marks. • Two questions will be given from each module, out of which 1 question should be answered. • Each question can have a maximum of 3 sub divisions. **(4x9 = 36 marks)**	**60**

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Course Outcomes (COs)

At the end of the course students should be able to:

Course Outcome		Bloom's Knowledge Level (KL)
CO1	The student will gain an understanding of processing techniques used to make snack foods and snack food seasonings	**K2**
CO2	Apply grain, dough and batter-based snack food formulations in real world	**K3**
CO3	Comprehend fruit & vegetable and extruded snack foods along with machinery and packaging requirements	**K2**
CO4	Analyse quality characteristics, shelf life and major regulations of snack foods	**K4**
CO5	The student will gain an understanding of processing techniques used to make snack foods and snack food seasonings	**K2**

Note*: K1- Remember, K2- Understand, K3- Apply, K4- Analyse, K5- Evaluate, K6- Create*

CO-PO Mapping Table:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	1			1							1
CO2	2	1			3							1
CO3	2	2			3							1
CO4	2	1			3							1
CO5	2	1			2							1

Text Books				
Sl. No	**Title of the Book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	Snack Foods Processing	Edmund W. Lusas, Lloyd W. Rooney	CRC Press	2001
2	The Technology of Extrusion Cooking.	Frame ND	Blackie Academic	1994
3	Snack Food	Gordon BR	AVI Publication	1st edition, 1990
4	Snack Food Technology	Samuel AM	Springer Science & Business Media	2012

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Reference Books				
Sl. No	**Title of the Book**	**Name of the Author/s**	**Name of the Publisher**	**Edition and Year**
1	Extrusion -cooking techniques, Application, theory and sustainability	Leszek moscicki	Wiley-VCH	1999
2	Village scale technology for novel snack foods products based on high protein cereal legumes	H E Smith, M S Chinnan	University of Georgia	1954
3	Cereal grain for the food and beverage industries	Elke K Arendt, Emanule Zannini	Woodhead publications	1st edition, 2013
4	Food science, technology, and nutrition	Sharma A	Woodhead publishing	2nd edition, 2005

Video Links (NPTEL, SWAYAM…)	
Module No.	**Link ID**
1	https://ugcmoocs.inflibnet.ac.in/index.php/courses/view_ug/134
2	https://onlinecourses.nptel.ac.in/noc22_ag03/preview
3	https://onlinecourses.swayam2.ac.in/cec19_ag01/preview
4	https://onlinecourses.swayam2.ac.in/nou20_ag09/preview

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