

**B.A. (Prog.) with Food Technology (FT) as Non-Major
Category-III**

**DISCIPLINE SPECIFIC CORE – DSC-10-FT:
ADVANCED BAKING TECHNOLOGY**

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Advanced Baking Technology	4	2	0	2	Class XII	Basic Baking Technology

LEARNING OBJECTIVES:

3. To impart students with knowledge related to processing of breads and Cookies.
4. To familiarize them with basics of food packaging, marketing, and cost control.

LEARNING OUTCOMES:

After completion of the course, the students will be able to develop:

6. Skill to prepare various kinds of breads and cookies
7. Illustrate various methods of marketing
8. Compare food packaging materials and their characteristics
9. Prepare food labels and conduct sensory evaluation of prepared baked products
10. Entrepreneurial skill related to bakery products

SYLLABUS OF DSE-10-FT

**THEORY
(Credits 2: 30 Hours)**

UNIT I: Bread Processing

(13 Hours)

- *Unit Description:* This unit describes bread processing and various spoilage occurring in bread and different bread products.
- *Subtopics:*
 - Preparation of bread - Ingredients, methods of bread dough preparation (straight, sponge, salt delayed, sour dough) steps in bread processing, evaluation of the baked bread.
 - Staling of bread, spoilage in bread and control measures.
 - Types of breads (variety of breads, pizza base, buns, dinner rolls, sourdough products).

UNIT II: Cookies, Biscuits and Crackers Processing

(05 Hours)

- *Unit Description:* The unit will focus on processing and evaluation of cookies and crackers. It also describes the packaging, storage & labelling of the processed products.
- *Subtopics:*
Ingredients, types, processing, storage and evaluation.
 - Cookies (Sheet, molded and dropped).
 - Biscuits
 - Crackers.

UNIT III: Food Packaging, Marketing and Cost Control

(12 Hours)

- *Unit Description:* This unit describes the FSSAI regulations for food packaging, various food packaging materials, food marketing and cost calculation for processed baked food products.
- *Subtopics:*
 - Packaging – its importance, essential features of an ideal package, food packaging materials for baked products.
 - Food Safety and Standard (Packaging) Regulation, 2018, Food Safety and Standard (Labelling and Display) Regulation, 2020.
 - Marketing - definition and importance, marketing strategies (wholesale, retail, digital, swot and market mix) understanding the difference between marketing and sales, 4Ps of marketing (Product, Price, Place, Promotion) and distribution.
 - Cost control – cost components (material cost, labour cost and miscellaneous costs).

PRACTICAL (Credits 2: 60 Hours)

No. of Students per Practical Class Group: 10-15

7. Determination of gluten content in refined wheat flour.
8. Determination of dough raising capacity (DRC) of yeast and factors affecting the yeast activity.
9. Designing labels for baked products.
10. Preparation and sensory evaluation, packaging and costing of breads:
 - White and brown bread
 - Buns
 - Dinner rolls
 - Pizza base
11. Preparation and sensory evaluation, packaging and costing of cookies:
 - Dropped cookies
 - Rolled cookies
 - Molded cookies
12. Preparing any of the baked products in bulk and organizing an exhibition-cum sale.

ESSENTIAL READINGS (Theory and Practical):

- Dubey S. C. (2016). *Basic Baking: Science and Craft*. Delhi: The Society of Indian Bakers.
- Dubey S. C. (2009). *Bakery Vigyan*. Delhi: The Society of Indian Bakers.
- Matz A. (2008). *Bakery Technology and Engineering*. 10th Edition. Delhi: CBS Publishers.
- Kirar, I. (2021). *Textbook of Culinary and Bakery World*, I K International Publishing House Pvt Ltd.

- *Food Safety and Standards Authority of India*: <http://www.fssai.gov.in>(accessed on 17.3.2023)
- Sethi, M. (2005). *Institutional Food Management*. Delhi: New Age International Publishers.
- Food Safety and Standard (Labeling and Display) Regulation, 2020 https://www.fssai.gov.in/upload/notifications/2020/12/5fd87c6a0f6adGazette_Notification_Labeling_Display_14_12_2020.pdf (accessed on 17.3.2023)
- Food Safety and Standard (Packaging) Regulation, 2018 https://www.fssai.gov.in/upload/uploadfiles/files/Gazette_Notification_Packaging_03_01_2019.pdf (accessed on 17.3.2023)

SUGGESTED READINGS:

- Faridi, H. (2004). *The Science of Cookie and Crackers Production*. Delhi: CBS Publishers.
- Griffin, S. (1997). *Principles of Food Packaging*. Connecticut: The AVI Publishing Company.
- Khetrapal, N., Grewal, R.B., and Jood, S. (2005). *Bakery Science and Cereal Technology*. Delhi: Daya Publishing House.
- Khanna, K., Gupta, S., Seth, R., Mahana, R., and Rekhi, T. (2004). *The Art and Science of Cooking*. Delhi: Phoenix Publishing House Private Limited.
- Potter, N., and Hotchkiss, J.H. (2006). *Food Science*. Delhi: CBS Publishers.
- Raina, U., Kashyap, S., Narula, V., Thomas, S., Suvira, Vir, S., and Chopra, S. (2005). *Basic Food Preparation – A Complete Manual*. Delhi: Orient Longman.
- Sharma, S., Aggarwal, M. & Sharma, S. (2018). *Food Frontiers*. Delhi: New Delhi Publishers.
- Radhakrishnan, S. (2016). *A Guide To Baking Process*: Write And Print Publications.
- Cauvain, S.P. (2003). *Bread Making Improving Quality*: Elsevier.
- Baking courses: <https://www.udemy.com/topic/baking/>.(accessed on 17.3.2023)
- Baking guide: <http://www.reviewlab.com/baking-guide/>.(accessed on 17.3.2023)

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.