

APPLIED FOOD SCIENCE AND PRODUCT MODIFICATION (PRACTICAL)

(4 Cr)

Objectives:

This course will enable students to:

1. Understand and apply various aspects of food science for dietary management and product development.
2. Develop products, which meet nutritional needs of consumers.
3. Understand theoretical concepts about sensory evaluation of food.
4. Use different sensory methods for evaluating variety of foods.
5. Analyse and interpret sensory evaluation data.

Contents:

Module No	Topic and Details	Number of Credits
1	Conducting the Test: <ul style="list-style-type: none">- Preparing samples- Presenting samples- Using reference samples- Reducing panel response error- Consumer oriented tests- Product oriented tests- Shelf life studies- Product matching- Product mapping Taint Investigation and Prevention	1
2	Reducing viscosity and bulk in foods Increasing energy density Applications of fermentation, germination, malting	1
3	Use of different food ingredients for development of health foods – artificial sweeteners, modified starches, fat replacers, increasing fibre content, functional ingredients, low sodium food adjuncts, protein concentrates, whey New Food Products	2

	<p>1. Definition, Classification</p> <p>2. Characterization Factors shaping new product development- Social concerns, health concerns impact of technology and market place influence.</p> <p>3: Planning, standardizing and testing the product, nutritional content</p>	
	<p>Tapping traditional foods and unconventional sources of foods.</p> <p>Modifying traditional foods</p> <p>Planning, standardizing and testing the product, nutritional content</p>	

References:

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5. Moskowitz, H.R. (eds) (1987): Food Texture: Instrumental and Sensory Measurement. Marcel Dekker Inc. New York.
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21. Fuller, G.W.(1994) *New Food Product Development : From Concept to Market place* CRC Press, New York.
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23. Shapton, D.A. and Shapton, N.F.(1991) *Principles and Practices for the Safe Processing of Foods*. Butterworth Heinemann Ltd , Oxford.
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Journals:

1. *International Journal of Food Science and Technology*.
2. *Food Technology*
3. *Journal of Food Technology*
4. *Trends in Food Science and Technology*
5. *Critical Reviews in Food Science and Nutrition*