

Academic Council Meeting No. and Date : 03 / February 14, 2022

Agenda Number : 6

Resolution Number : 12 / 5.2



**Vidya Prasarak Mandal's
B. N. Bandodkar College of
Science (Autonomous), Thane**



**Certificate Course
in
Food Adulteration and Quality Management**

**With effect from
Academic Year 2022-2023**

Preamble

Department of Biochemistry, VPM'S B. N. Bhandodkar College of Science (Autonomous), Thane is organizing a certificate Course on **FOOD ADULTERATION AND QUALITY MANAGEMENT** for undergraduate and postgraduate students.

Among the different branches of science, Food science focuses on composition of food, food processing, food quality management and extension of shelf life of food etc. Biomolecules are the main constituents of food having significant role in food processing, preservation, decomposition and spoilage. Our nutritional status, health, physical and mental faculties depend on the food we eat and how we eat it. Food adulteration is the act of intentionally debasing the quality of food offered for sale either by the admixture or substitution of inferior substances or by the removal of some valuable ingredient.

This course aims at spreading awareness of basics of nutrition, food borne pathogens among the students, hands-on training to detect adulteration and understanding about food quality management.

Course Outcomes – Learner will be able to

1. Experience hands on training for determining food quality.
2. Explain theoretical and practical knowledge about food processing.
3. Understand the process of food quality control.
4. Explain comprehensively the differences between quality control and quality assurance and their underlying principles.
5. Explain in detail the different quality attributes in terms of definition, evaluation, application and significance.
6. Develop skills in the various methods used to analyze different foods for their components and quality attributes.
7. Diagnose adulteration of commonly consumed food items.

Certificate Course Food Adulteration and Quality Management

CourseCode	Course Title	No. of lectures	Credits
BNBCCFQ1T1	Food Adulteration and Quality Management	45	3

UNIT NO.	COURSE CONTENTS	No. Of Lectures
I	Introduction to Food Science Introduction, types of food, functions of food, food groups, Food and Health	3
II	Food Adulteration Food adulteration, types of adulterants, Health impacts of adulteration, Food hazard- definition, types, Food poisoning- types, prevention and control, Diseases-neuroleptism, Botulism, aflatoxin, egotism, Staphylococcal intoxication, salmonellosis etc	6
III	Food Additives Preservatives, flavoring agents, sweeteners, stabilizers, antioxidants. Additives Vs. Adulterants, Food colors, Additives to Avoid	4
IV	Food Preservation: Food Spoilage, Fermentation, Methods of Food Preservation, Food Irradiation, Hurdle Technology	5
V	Evaluation of Food Organoleptic Evaluation of Food <ul style="list-style-type: none"> Taste (gustation): Introduction, importance of gustation, Chemical dimensions of basic tastes- sweet, bitter, sour, salt. Odour and flavor (olfaction): Introduction and importance of odour and flavor Color: Introduction and importance of color, Dimensions of color, perception of color Texture: Introduction, definition and importance, Texture classification Other senses: Temperature sensation, kinesthetic sensations, and soundsensations etc. Quality Assessment and Quality Management	4
VI	Packaging and Labeling of Foods Packaging – functions, classification, materials used. Package analysis, package designing.	4
VII	Food safety Food Safety, Food laws, Certification Systems, FSSAI	4
VIII	Practical Session Adulteration Test - I Adulteration Test – II Organoleptic Assessment Food Preservation – Preparation of Jam, Jelly and Murabba. Industrial Visit	15
	TOTAL	45

Evaluation Scheme

Internal Assessment (50 Marks)

1. Assignments will be given by individual teachers
2. IV report

External Assessment (100 marks)

1. Questions

MCQs / Fill in the blanks / Answer in one word or sentence / true or false etc.

(40 marks)

2. MCQ type Paper based on all units (60 Marks)

30 questions each of 2 marks.

30th April, 2022

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