

Short Term

**Certificate Course
In**

Food preservation

By

Department of Botany

**Mahatma Gandhi Vidyamandir's
Arts, Commerce & Science College,**

Malegaon

City

2019-20

Course Overview

Name of the Course	Food Preservation
Level	Certificate
Duration	30 hrs.
Course Credit	2
Eligibility	Undergraduate science students up to T.Y.Bsc
Course Fee	Free of Cost
Structure	Theory- 25 hrs. & 05-hrs internal activity
Assessment	At the end of the course. MCQ type assessment will be the conducted with Oral/Viva performed during the course
Attendance	Enrolled students have to give 75% attendance in theory and oral, failing which no certificate will be awarded
Course Co-ordinator	Prof. Shaikh Naziya Department of Botany Mob: 7387931388 Email: shaikhnaziya1121@gmail.com
Course Convener	Dr. Arif Anjum Vice Principal Arts, Science And Commerce College, Malegaon City

➤ **Introduction:**

The purpose of this course is to promote Food Preservation awareness and encourage preservation working practices in the Home. These brief guidelines should serve as a reminder things, people can do work more preservation and are applicable to all Fruits, Vegetables in market.

➤ **Learning Objectives:**

1. To acquaint with principles of different techniques used in processing and preservation of foods.
2. To develop an understanding and methodologies of instrumental techniques in food analysis used for objective methods of food quality parameters.

➤ **Learning Outcomes:**

- 1) The students will gain information about various food constituents, and changes that occur in them during food processing.
- 2) The students will have knowledge about different processing and preservation methods and principles involved.

Board of Studies

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2 Prof. Tasneem kausar Department of Botany ASC College Malegaon City.	Member
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6. Prof. Sana K.T. Department of Chemistry ASC College Malegaon City.	Member
7. Prof. Akhtar Pervez Department of Zoology ASC College Malegaon City.	Member

SYLLABUS

Chapter-01: Introduction to food preservation (05Hrs)

Introduction: Definition and scope of Food Science and Technology, historical development of food processing and preservation, general principles of food preservation.

Chapter-02: Preservation by heating (10 Hrs.)

Preservation by heating: Principles of the method, Types of microorganisms, bacterial load, sterilization and commercial sterility, thermal resistance of the microorganisms and enzymes..

Canning and bottling: General aspects of canning and bottling, processing operations exhausting and sealing, retorting, ultra-high temperature processes, processing equipment, canning/ bottling of various food products.

Chemical preservation: Preservation of foods by use of sugar, salt, chemicals and antibiotics and by smoking. Effect of various food processing operations on the nutrients of foods.

Chapter-03: Refrigeration and freezing preservation (05 Hrs.)

Refrigeration and freezing preservation: Refrigeration and storage of fresh foods, major requirements of a refrigeration plant, controlled atmospheric storage, refrigerated storage of various foods, freezing point of selected foods, influence of freezing and freezing rate of the quality of food products, methods of freezing, storage and thawing of frozen foods.

Chapter-04: Drying and dehydrations (05 Hrs.)

Drying and dehydrations: Sun drying of various foods, water activity and its effect on the keeping quality, Characteristics of food substances related to their dehydration behavior, drying phenomenon, factors affecting rate of drying, methods of drying of various food products, type of driers and their suitability for different foods; intermediate moisture foods.

Reference Books

- Food Processing Technology by P.J. Fellows, Wood head publishing ltd.
- Food Science by N.N. Potter, CBS publishing.
- Physical principles of Food Preservation. Vol. II by M. Karel, O.R. Fenema and D.B. Lurd, Maroel, Dekker Inc. New York.

Demonstration & Internal activity (Viva / Oral)

[05 hrs.]

Assessment:

At the End of course, MCQ type examination will be conducted along with oral/viva on theory part during the course. After successful completion and attendance should be above 75%. Examination is compulsory, no certificate will be awarded to any candidate who fails in attendance and examination criteria.

Dr. Arif Anjum
Course Convener

Prof. Shaikh Naziya
Course Coordinator