



ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

Model Syllabus for 4-Year UG Honours in B.Sc. (Food Science and Technology) as Major in consonance with Curriculum framework w.e.f. (W.E.F. AY-2026-27)

COURSE STRUCTURE

Year	Semester	Course	Title of the Course	No. of Hrs /Week	No. of Credits
II	IV	8	Baking Science and Technology	3	3
			Baking Science and Technology-Practical	2	1
		9	Technology of Fruits and Vegetables	3	3
			Technology of Fruits and Vegetables-Practical	2	1
		10	Technology of Cereals, Pulses and oil seeds	3	3
			Technology of Cereals, Pulses and oil seeds-Practical	2	1

SEMESTER - IV

COURSE 9: TECHNOLOGY OF FRUITS AND VEGETABLES

Theory

Credits: 3

3 hrs/week

Learning Objectives:

To understand the concepts of processing and preservation of fruits, vegetables and plantations crop

Learning Objectives

LO 1 Student will learn overview of fruit and vegetable production and its handling

LO 2 Student will learn how to preserve the harvested fruits and vegetables

LO 3 Student will learn how to prepare various products from fruits as per FASSAI standards

LO 4 Student will learn how to prepare various products Vegetables fruits as per FASSAI Standards

LO 5 Student will learn how to prepare value added products from fruit and vegetable waste

Unit I

Production and processing scenario of fruits and vegetables in India and world; Scope of fruit and vegetable processing industry in India. Overview of principles and preservation methods of fruits and vegetables; Supply chain of fresh fruits and vegetables. Primary processing and pack house handling of fruits and vegetables; Peeling, slicing, cubing, cutting and other size reduction operations for fruits and vegetables.

Unit 2

Minimal processing of fruits and vegetables; Blanching- operations and equipment. Canning: Definition, processing steps, and equipment; Cans and containers, quality assurance and defects in canned products.

Unit -3

FSSAI specifications and preparation and preservation of juices, squashes, syrups, sherbets, nectars, cordials, etc.; Processing and equipment for above products. FSSAI specifications of crystallized fruits and preserves, jam, jelly and marmalades, candies Preparation, preservation and machines for manufacture of above products.

Unit- 4

Preparation, preservation and machines for manufacture of chutney, pickles, sauce, puree, paste, ketchup; toffee, cheese, leather, dehydrated, wafers and papads, soup powders;

Unit -5

Production of pectin and vinegar Commercial processing technology of selected fruits and vegetables for production of various value added processed products. By-products of fruit and vegetable processing industry.

Reference

U.D. Chavan and J.V. Patil. 2013. Industrial Processing of Fruits and Vegetables. Astral International Pvt. Ltd., New Delhi.

S. Rajarathnam and R.S. Ramteke. 2011. Advances in Preservation and Processing Technologies of Fruits and Vegetables. New India Publishing Agency, New Delhi.

Y.H. Hui. 2006. Handbook of Fruits and Fruit Processing. Blackwell Publishing Ltd., Oxford, UK.

W.V. Cruess. 2004. Commercial Fruit and Vegetable Products. Agrobios India, Jodhpur. 49

Y. H. Hui, Sue Chazala, Dee M. Graham, K.D. Murrell and Wai-Kit Nip. 2004. Handbook of Vegetable Preservation and Processing. Marcel Dekker, Inc., NY, USA.

A.K. Thompson. 2003. Fruit and Vegetables: Harvest, Handling and Storage, 2nd Ed. Blackwell Publishing Ltd., Oxford, UK.

Amalendu Chakraverty, Arun S. Mujumdar, G.S. Vijaya Raghavan and Hosahalli S. Ramaswamy. 2003. Handbook of Post Harvest Technology: Cereals, Fruits, Vegetables, Tea, and Spices. Marcel Dekker, Inc., NY, USA.

R.P. Srivastava and Sanjeev Kumar. 2002. Fruit & Vegetable Preservation: Principles and Practices, 3rd Ed. International Book Distribution Co., Delhi.

P.H. Pandey. 1997. Post Harvest Technology of Fruits and Vegetables. Saroj Prakashan, Allahabad.

Mircea Enachescu Dauthy. 1995. Fruit and Vegetable Processing. FAO Agricultural Services Bulletin No.119. FAO of UN, Rome.

Girdhari Lal, G.S. Siddappa and G.L. Tandon. 1959. Preservation of Fruits and Vegetables. ICAR, New Delhi.

EIRI Board of Consultants and Engineers. Manufacture of Snacks, Namkeen, Papads and Potato Products. EIRI, New Delhi.

SEMESTER - IV

COURSE 9: TECHNOLOGY OF FRUITS AND VEGETABLES

Practical	Credits: 1	2 hrs/week
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1. Primary processing of selected fruits and vegetables
 2. Canning of Mango/Guava/ Papaya 2 Qualitative analysis of pectin
 - 3 Determination of salt concentration in processed/ preserved product
 - 4 Determination of sulphurdioxide content in processed/preserved product
 - 5 Preparation of jam from selected fruits
 - 6 Preparation of jelly from selected fruits
 - 7 Preparation of fruit marmalade
 - 8 Preparation of RTS/ nectar
 - 9 Preparation of squash/ crush
 - 10 Preparation of cordial
 - 11 Preparation of anardana
 - 12 Preparation of pickles
 - 13 Dehydration of ginger, onion and garlic
 - 14 Preparation of banana and potato wafers;
 - 15 Preparation of vegetable sauces

4- Year UG Honours, Major
Syllabus
(2026-27)
Semester-IV

Model Question Paper

Time : 3hrs

Marks:75

Part-A

Answer any Five Questions. Each Question carries 3 Marks.

5x3=15

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Answer the following questions. Each question carries 12 Marks

5x12=60

11. a) Unit-I
(Or)
b) Unit-I

12. a) Unit-II
(Or)
b) Unit-II

13. a) Unit-III
(Or)
b) Unit-III

14. a) Unit-IV
(Or)
b) Unit-IV

15. a) Unit-V
(Or)
b) Unit-V