

**Fruit Packing Technician**

1. Department: Botany
2. Title: Fruit Packaging Technician
3. Sector: - B.Sc. II (Plant Protection)
4. Year of implementation: 2024-2025

**Course Structure**

Skill Level	Theory Hours	Practical Hours	Total Hours	Credits	No. of students in batch
5	15	30	45	02	19

**Syllabus**

**Learning Objectives:**

This subject is aimed to develop an understanding among the students on

- a. Basic knowledge of fruit and vegetables packaging
- b. Imparting knowledge of packaging rules and techniques of fruits and vegetables
- c. Imparting the knowledge of post-harvest handling and storage of fruits and vegetables
- d. Imparting the basic knowledge of packaging strategies of fruits and vegetables

**Theory Syllabus (15 Hrs, Credit:01)**

**Unit I: Introduction and Rules of Packaging**

Requirements for effective food packaging; Types of packaging materials; General properties of packaging material; Packaging Rules; Labelling, Packaging Techniques; Bar coding of the packaged material.

**Unit II: Post Harvest handling and packaging**

Harvest indices of fruits; post-harvest handling and precautionary measures for fruits; chilling injury; Smart and intelligent packaging; Surface sterilization; Ethylene and oxygen Scavengers.

**Practical Syllabus (30 Hrs, Credit: 01)**

**List of Experiments: 24 hr**

1. Study quality characteristics of foods preserved by drying/dehydration/ freezing.
2. Identification & testing of packaging materials
3. Studies on physiological disorders - chilling injury of fruits
4. Surface sterilization of fruits
5. Harvest indices of fruits

**Visit to commercial packaging house – grape/mango/pomegranate/banana 6hrs**

**Learning Outcomes:**

**After completing the course, the student will be able to:**

1. Explain the requirements and materials used in food packing
2. Explain Packaging rules and techniques of fruits and vegetables

**Recommended Books:**

1. Ramaswamy H and Marcotte M, **Food Processing Principles and Applications** CRC Press, 2009.
2. Rao CG., **Essentials of food process engineering**. B S publications, 2006.
3. S. Ranganna, **Hand book of analysis and quality control for fruit and vegetable products**, II Ed., Tata McGraw Hill Publishing Co. New Delhi.

**BOS Sub Committee:**

1. Prof. (Dr.) D. D. Namdas – Chairman
2. Mr. A. A. Mali- Member

**Expert:**

1. Mr. Amar Navgan -Industrial Expert
2. Dr. S. R. Pai- Academic Expert