

Course Code	Course Name	Credits
26BT953	FOOD PROCESSING TECHNIQUE	02

Course Description

This course introduces the fundamental principles of food processing with emphasis on food properties, processing techniques, microbial control, packaging, and quality assurance. It provides both theoretical understanding and applied knowledge of food preservation methods, contamination control, and food safety practices. The course is designed to develop technical competence in food processing and quality management systems in the food industry.

Course Objectives

- To introduce learners to the scope and importance of food processing industries.
- To develop understanding of food properties and basic processing operations.
- To explain the role of microorganisms in food spoilage and food safety.
- To provide knowledge of food preservation and packaging techniques.
- To develop understanding of quality control systems and food regulations.

Skill Enhancement Outcomes

After completing the course, learners will be able to:

- Understand basic concepts of food properties and processing operations.
- Identify microbial contamination and its effects on food quality and safety.
- Apply principles of food preservation using different processing methods.
- Understand packaging systems and their role in extending shelf life.
- Apply basic quality control methods in food material assessment.
- Recognize food adulteration and follow food safety standards.

Course Content and Practical Training

- Introduction to food processing and its scope and importance
- Physical properties of food: solids, liquids, and gases
- Food processing equipment and material handling systems
- Size reduction, mixing, forming, separation, and concentration techniques
- Microbial contamination in food products including cereals, pulses, milk, and meat
- Biochemical changes caused by microorganisms and food spoilage
- Food poisoning and microbial toxins
- Food preservation methods: freezing, heating, dehydration, canning, and fermentation
- Advanced preservation techniques: irradiation, extrusion cooking, and microwave processing
- Introduction to food packaging principles and operations
- Packaging design, function, and shelf life extension methods
- Deterioration of food and preventive packaging strategies
- Quality control in food materials including sampling and testing
- Food regulations, grading standards, and food safety systems
- Food adulteration detection and evaluation methods

Learning Outcome

At the end of the course, learners will be able to understand food processing operations, apply preservation and packaging techniques, identify microbial contamination, and implement basic quality control and food safety practices in food industry settings.