# MBPC3024 LIVELIHOOD AND DEVELOPMENT MANAGEMENT (3-0-0)

### **Course Objectives:**

- 1. Understand NGO management principles and explore agri-based, livestock-based, and natural resource-based livelihood options in rural areas.
- 2. Analyze development programs in sectors such as health, education, WASH, food security, and nutrition, along with relevant policies and institutional mechanisms.
- 3. Learn about decentralized planning, governance, disaster management, relief, rehabilitation, and development training.
- 4. Explore principles and techniques of food processing and preservation, including heat-based, low-temperature, non-thermal methods, and use of enzymes and microorganisms.

## Module-I:

NGO Management, Agri-based, livestock-based and natural resource-based livelihood options in rural areas. Development Programs in various sectors (Health, Education, WASH, Food Security and Nutrition), policies, institutional mechanisms.

#### Module-II:

Decentralized planning and governance, Disaster Management, Relief and Rehabilitation and Development Training.

### Module- III:

Processing and preservation of foods. Scope of food processing; historical developments; principles of food processing and reservation. Processing and preservation by heat: blanching, pasteurization, sterilization and UHT processing, canning, extrusion cooking, dielectric heating, microwave heating, baking, roasting and frying, etc.

Processing and preservation by low-temperature- refrigeration, freezing, CA, MA, and dehydro- freezing. Processing and preservation by drying, concentration and evaporation-types of dryers and their suitability for different food products; ultra- filtration, reverse osmosis.

Processing and preservation by non-thermal methods, irradiation, high pressure, pulsed electric field, hurdle technology. Use and application of enzymes and microorganisms in processing and preservation of foods; food fermentations, pickling, smoking etc; Food additives: definition, types and functions, permissible limits and safety aspects.

#### **Course Outcomes:**

- CO-1: Develop skills in NGO management and effective implementation of livelihood programs in rural areas, contributing to sustainable development.
- CO-2: Understand NGO management principles and explore agri-based, livestock-based, and natural resource-based livelihood options in rural areas.
- CO-3: Understand NGO management principles and explore agri-based, livestock-based, and natural resource-based livelihood options in rural areas.
- CO-4: Understand NGO management principles and explore agri-based, livestock-based, and natural resource-based livelihood options in rural areas.

## Books:

- Rural Development and Livelihoods in India, Niranjan Sahoo
- Food Processing and Preservation, S Sivasankar, PH