1. Course Title : Organic Farming
2. Course Code : OFM …….
3. Credit Hours : 4 + 0

**Unit I:** Concepts and principles of organic farming History and evolution of organic farming in the world and India. Scenario of organic farming in India and world, global market for organic products, IFOAM’s Guiding principles of organic farming, conversion to organic agriculture, advantages and limitations. Definitions and types of organic farming Definitions of organic farming, types of organic farming such as natural farming, zero chemical natural farming, bio dynamic farming, biological farming, compost farming, Natueco culture, integrated farming, homa farming, permaculture etc, traditional farming systems in India and evolving indigenous knowledge systems.

**Unit II:** Fundamentals of organic farm management and conversion Salient features of organic farm management, strategies for conversion to organic, step-by-step planning, integration of contamination control measures, planning for on-farm input production and supplementary off-farm inputs, planning for rain water harvesting and water conservation approaches including efficient irrigation systems and moisture preservation techniques, visit to organic farms and study on farmer’s best practices for conversion.

**Unit III:** Nutrient management Components of nutrient management in organic crop production, assessment of crop nutrient requirements, calculation of nutrient credits from on-farm practices and resources such as intercrops, cover crops, biomass mulching, calculating additional input requirements. Managing nutrient needs through use of organic manures, viz. FYM, compost, Vermicompost, oil cakes, in-situ and ex-situ green manuring, crop residue management, use of restricted organic nutrient sources, liquid organic manures and dung urine slurries, methods of manuring and biomass application, split application of manures, foliar feeding as replacement of top dressing, ITKs and farmers innovations in nutrient management. Integration of microbial and mineral inputs Importance of bio fertilizers, types of biofertilizers, nutrient potential, methods of application, enriching manures/ composts with biofertilizers, identifying the need for use of supplementary mineral sources and their integration in nutrient management package.

**Unit IV:** Organic Food Processing and Preservation Fundamental principles for food processing in organic farming, acceptable processing techniques, use of preservatives, processing aids, flavouring agents and nutrient supplement in organic food and feed processing.

**Unit V:** National and international regulations on quality assurance and certification National Programme for Organic Production (NPOP), National Standards for Organic Production (NSOP), USDA NOP Programme and standards, EU Organic standards, Codex Alimentarius, Canada Organic regulation and important differences between NPOP and international standards. FSS Act 2006 for organic food, basic requirements, enforcement, standard operating procedures and verification in value chain