### IV Semester /HorticultureCore Course - 4 **Basics of Fruit Science (Pomology)** (Total hours of teaching -60 @ 04 Hrs./Week)

### **Theory :**

Learning Outcomes: On successful completion of this course, the students will be able to:

- > Realize the value of fruits in terms of human nutrition and economy of nation.
- Explain the potential fruit zones in various states of our country.
- Classify the fruiting plants based on temperature requirements.
- > Acquire knowledge related to various cultivation practices for different fruit crops
- > Demonstrate the special intercultural operations done in fruit crops
- Comprehend the knowledge on varieties of different fruit crops.
- > Examine the pests and diseases of fruit crops and develop skills to manage the same,
- Explain about Integrated Orchard Management
- > Develop knowledge on various entrepreneurial skills related to fruit science.

### **Unit** – 1 : **Introduction to Fruit crops**

- 1. Importance of fruit growing in India and Andhra Pradesh.
- 2. Nutritive value of fruits.
- 3. Area and production of India and Andhra Pradesh.
- 4. Export and import potential of fruits in India.Constraints in fruit production and remedies to overcome them.

### **Unit – 2 : Tropical Fruit Crops**

Origin, history, distribution, area and production, uses and composition, varieties, soil and climatic requirements, propagation, planting, training and pruning, manuring and fertilizer application, irrigation, intercropping, harvesting and yield, diseases and pests of the following tropical fruit crops:

(a) Mango (b) Guava and (c) Papaya

# Unit – 3 : Sub-tropical and temperate fruit crops

Origin, history, distribution, area and production, uses and composition, varieties, soil and climatic requirements, propagation, planting, training and pruning, manuring and fertilizer application, irrigation, intercropping, harvesting and yield,

### 12 Hrs.

12 Hrs.

12 Hrs.

diseases and pests of the following sub-tropical and temperate fruit crops:

(a) Grapes (b) Pomegranate (c) Citrus and (d) Apple

### Unit - 4 : Arid and minor fruit crops

### 12 Hrs.

Origin, history, distribution, area and production, uses and composition, varieties, soil and climatic requirements, propagation, planting, training and pruning, manuring and fertilizer application, irrigation, inter cropping, harvesting and yield, diseases and pests of the following arid fruit crops:

(a) Amla (b) Dates and (c) Wood apple

## Unit – 5 : Management practices for fruit crops 12 Hrs.

1. Sustainable Production Practices for Local Fruit Production.

- 2.Integrated Orchard Management/Principles of IPM.
- 3. Harvesting and Labor Concerns
- 4. Grading, packing, storage and marketing of fruits.

# Practical syllabus of Horticulture Core Course – 4/ Semester IV Basics of Fruit Science (Pomology)

(Total hours of teaching – 30 @ 02 Hrs./Week)

- 1. Study of varieties of Mango, Papaya and Guava.
- 2. Study of varieties of Grape, Pomegranate, Citrusand Apple.
- 3. Study of varieties of Amla, Dates and Wood apple.
- 4. Manure and fertilizer application including biofertilizers in different fruit crops
- 5. Methods of application, calculation of the required quantity of manure and fertilizers based on the nutrient content.
- 6. Use of growth regulators in fruit crops.
- 7. Identification and collection of important pests in fruit crops.
- 8. Identification and collection of important diseases in fruit crops and Herbarium preparation.
- 9. Visit to a fruit market/commercial orchids.