



ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

Syllabus for **B.VOC HORTICULTURE (MAJOR)** in consonance with Curriculum framework

(W.E.F. AY-2026-27)

COURSE STRUCTURE (for Semester IV)

Year	Semester	Course	Title	No of Hrs/week	No of Credits
II	IV	8	Basics of Vegetable Science – (T)	3	3
			Basics of Vegetable Science – (P)	2	1
		9	Plant Tissue Culture – (T)	3	3
			Plant Tissue Culture – (P)	2	1
		10	Management of Diseases in Horticultural Crops – (T)	3	3
			Management of Diseases in Horticultural Crops – (P)	2	1


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SEMESTER - IV
COURSE - 8: BASICS OF VEGETABLE SCIENCE

Theory

Credits - 3

3 hrs/week

I. Learning Objectives: By the end of this course the learner has:

1. To recognize the morphology of the various vegetable crops.
2. To acquire knowledge in cultivation of vegetable crops.
3. To acquire knowledge in identification of various pests and diseases of vegetable crops.

II. Learning Outcomes: On completion of this course students will be able to:

1. Distinguish the growing of vegetables according to season and climate
2. Get detailed knowledge on cultivation aspects of different vegetables
3. Understand and explain the special intercultural operations done in vegetable crops
4. Study of morphology and taxonomy of different vegetable crops
5. Study of different varieties of vegetable crops
6. Identify the diseases and pests of vegetable crops and their management

Syllabus of Theory:

Unit-1: Introduction to Vegetable crops

9 Hrs.

1. Importance of vegetable cultivation in India and Andhra Pradesh.
2. Classification of vegetables.
3. Constraints in vegetable production and remedies to overcome them.
4. Vegetable Gardens

Unit-2: Sub-tropical vegetables

9 Hrs.

1. Importance, morphology and taxonomy, varieties, climate and soil, seeds and sowing, manuring, irrigation, intercultural operations, diseases and their control, harvesting and yield of following crops: Cultivation of (a) Brinjal (b) Tomato (c) Chilli (d) Okra (e) Cucurbits

Unit-3: Temperate vegetables

9 Hrs.

1. Importance, morphology and taxonomy, varieties, climate and soil, seeds and sowing, manuring, irrigation, intercultural operations, diseases and their control, harvesting and yield of following crops: Cultivation of (a) Cauliflower (b) Cabbage (c) Onion

Unit-4: Tuber and Root crops

9 Hrs.

1. Importance, morphology and taxonomy, varieties, climate and soil, seeds and sowing, manuring, irrigation, intercultural operations, diseases and their control, harvesting and yield of following crops: Cultivation of (a) Potato (b) Carrot (c) Beetroot (d) Tapioca

Unit-5: Beans and leafy vegetables

9 Hrs.

1. Importance, morphology and taxonomy, varieties, climate and soil, seeds and sowing, manuring, irrigation, intercultural operations, diseases and their control, harvesting and yield of following crops: Cultivation of (a) Cluster bean (b) Cow pea and (d) Dolichos bean (c) Coriander


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IV. Text Books:

1. Thompson, H. C and Kelly, W. C. 1959. Vegetable Crops. Tata Mc Graw Hill Publishing Co. Ltd., Bombay.
2. Premnath Velyudhan, S and Singh, D. P. 1987. Vegetables for the Tropical Region ICAR, New Delhi.
3. Shanmugavelu, K. G. 1989. Production Technology of Vegetable Crops. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi
4. Chaudhary, B. 1992. Vegetables. National Book Trust, New Delhi.
5. Bose, T. K and Mitra, S. K. Tropical Horticulture. Naya Prakash, Calcutta.
6. Bose, T. K et al. 2003. Vegetables Crops. Naya Udyog Publishers, Kolkata
7. Choudhury, B. (ICAR). 1990. Vegetables. 8th Edition, National Book Trust, New Delhi.

SEMESTER - IV
COURSE -- 8: BASICS OF VEGETABLE SCIENCE

Practical

Credits – 1

2 hrs/week

I. Laboratory/field exercises:

1. Demonstration of seed germination test for a vegetable seed.
2. Demonstration of seed viability test.
3. Identification of vegetable seeds and vegetable crops at different growth stages.
4. Different Seed Sowing methods.
5. Canning and Dehydration of vegetables.
6. Cost of cultivation studies of locally grown vegetables
7. Identification of Vegetable Crop Families
8. Identification of Vegetable Seeds and Seedlings
9. Demonstration of Nursery Raising Techniques for Vegetables
10. Demonstration of Layout, Spacing and Transplanting Methods
11. Demonstration of Nutrient Management in Vegetables
12. Demonstration of Irrigation Methods for Vegetable Crops
13. Identification of Insect Pests and Diseases in Vegetables
14. Record

II. Suggested activities:

A. Measurable:

a. Student seminars:

1. Production Technology of Solanaceous crops
2. Production Technology of Cucurbit Vegetables
3. Production Technology of Root and Tuber crops
4. Production Technology of Temperate crops
5. Production Technology of Leguminous crops
6. Special intercultural operations in vegetable crops
7. Major Pests and Diseases of vegetable crops and their management
8. Morphological characters of vegetable crops
9. Maturity and Harvesting indices of vegetable crops
10. Nutritional aspects of vegetable crops

d. Student Study Projects:

1. Identification and Herbarium preparation of different vegetable seeds
2. Identification and Herbarium preparation of disease symptoms of vegetable crops
3. Identification and Herbarium preparation of pest symptoms of vegetable crops
4. Raising of vegetables in Nursery and portrays

e. Assignments: Written assignment at home / during 'O' hour at college; preparation of charts with drawings, making models etc., on topics included in syllabus.

B. General:

1. Group Discussion (GD)/ Quiz/ Just A Minute (JAM) on different modules in syllabus of the course.
2. Visit to Horticulture University/ Research Station.
3. Visit to a vegetable nursery and vegetable crop field.

MODEL QUESTION PAPER
COURSE – 8: BASICS OF VEGETABLE SCIENCE

Times: 3 Hours

Maximum Marks: 75

SECTION – A

(Answer ANY FIVE questions. Each question carries 3 Marks)

(5 × 3 = 15 Marks)

1. Write any four important constraints in vegetable production and suggest suitable remedies.
2. Explain the kitchen garden?
3. List the major diseases of tomato and their control measures.
4. Explain types of brinjal flowers
5. Mention the improved varieties and suitable climate for the cultivation of cauliflower.
6. Write sex expression in cucurbits?
7. List the common diseases of potato and their control measures.
8. Write short notes on water requirement for vegetable crops
9. Write the importance and yield potential of cowpea and cluster bean.
10. Mention the suitable climate, soil, and varieties for the cultivation of coriander and dolichos bean.

SECTION – B

(Answer any ONE question from each Unit. Each question carries 12 Marks) (5 × 12 = 60 Marks)

UNIT – I

11. A. Explain the cultivation practices of tomato

OR

- B. Describe the classification of vegetables based on different criteria (botanical, climatic, seasonal, and parts used)

UNIT – II

12. A. Describe the cultivation practices of okra

OR

- B. Explain in detail the package of practices for the cultivation of Cucurbits

UNIT – III

13. A. Write detailed notes on the cultivation of Cabbage, varieties, and climatic conditions

OR

- B. Explain the agronomic practices of Onion cultivation, including seed sowing, transplanting

UNIT – IV

14. A. Describe in detail the cultivation practices of carrot, including climate, soil requirements

OR

- B. Explain the cultivation practices Carrot in detail

UNIT – V

15. A. Explain the package of practices for the cultivation of, Cowpea

OR

- B. Describe the cultivation of Coriander in detailed

4- Year UG Honours, Major
Syllabus
(2026-27)
Semester-IV

Model Question Paper

Time : 3hrs

Marks:75

Part-A

Answer any Five Questions. Each Question carries 3 Marks.

5x3=15

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Answer the following questions. Each question carries 12 Marks

5x12=60

11. a) Unit-I
(Or)
b) Unit-I

12. a) Unit-II
(Or)
b) Unit-II

13. a) Unit-III
(Or)
b) Unit-III

14. a) Unit-IV
(Or)
b) Unit-IV

15. a) Unit-V
(Or)
b) Unit-V