SRI VENKATESWARA UNIVRRSITY: TIRUPATI
B.VOC HORTICULTURE
Under CBCS W.E.F.2020-2021
COURSE STRUCTURE
SEMESTER-III

S.. NO	Skill / general education	Courses	Title of the paper/course and code	Credits per course	Hours /week	Total hours/ course	Marks		
							Internal	External	Total
1	General Education Component Gen.Edu	Language	General English	03	04	60	25	75	100
2		Life Skills	Health and Hygiene	02	02	30	---	50	50
3			Personality Development and Leadership	02	02	30	---	50	50
4		Skill Development Course	Environment Audit	02	02	30	----	50	50
5	Domain Skill Component	CORE-I	Introduction to soli science	04	04	60	25	75	100
6		PRACTICAL-1	Introduction to soli science	02	02	30	---	50	50
7		CORE-II	Diseases of horticulture crops and their management	04	04	60	25	75	100
8		PRACTICAL-II	Diseases of horticulture crops and their management	02	02	30	--	50	50
9		CORE-III	Production technology of vegetable crops	04	04	60	25	75	100
10		PRACTICAL-III	Production technology of vegetable crops	02	02	30	---	50	50
11		Industrial Training For 30 Days		03	36	144	---	50	50
				30	TOTAL MARKS				750

SVCR GOVT.DEGREE COLLEGE, PALAMANER

B.VOC HORTICULTURE 2020-21

II Year Semester - III

CORE -I INTRODUCTION TO SOIL SCIENCE

Teaching Hours: 4 **CREDITS: 4**

Theory: Learning Outcome:

On successful completion of this course, the student will be able to"

• Understand basic principles of Soil science

• Understand the soil formation, soil profile, and soil physical properties

• Understand the elementary knowledge of soil taxonomy

·Understand s the problematic soils and their management

• Understand soil organic matter composition and its influence on soil micro organisms

COURSE OUTLINES - SYLLUBUS OF THE COURSE

UNIT -I.INTRODUCTION:

Definition of Soil, Soil as Natural Body, Soil Components; Soil Air, Soil water, Organic and Inorganic Solids ,soil components,

UNIT -2 PHYSICAL PROPERTIES:

Soil separates, texture, Aggregation, and structural characters, , Temperature" ,Color ,Soil quality, properties of Soil mixture, pore Space, bulk density, parricle density , aeration , water holiding capacity , soli erosion and conservation , drainagr ,compaction , surface area , soli water relations"

UNIT - .III MORPHOLOGY OF COLLOIDS & BIOLOGICAL PROPERTIES OF SOIL

Chemistry of clays , ionic exchange , acidity ,alkalinity, ph, and salanity relations, liming and acidification. soil organic matter, C :N relations ,N transformations ,soil organisms, sulphur, transformation,"

UNIT- IV. GENESIS AND CLASSIFICATION

Profile, soil forming factors, soil survey methods, soil survey reports, soil distribution ,soil classification of systems ,drainage, erosion and mechanisns,- conterol, irrigation, land use classification .envirolmental quality, plant and animal waste, municipal, and industrial by products , nutrient, loading, tilmage, system, wet lands, urban soiles, soil health

UNIT:V SOIL FERTILITY AND FERTILIZERS

"Essential, elements, soil fertility evaluation techniques, factors affecting soil fertility. Importance of soil fertility. Soil testing, fertilizers, micro nutrient fertilizers and their quality, control, production and use of slow and controlled, relecase fertilizers,"

SVCR GOVT.DEGREE COLLEGE, PALAMANER.

Bachelor of Vocation: HORTICULTURE 2020-21

II Year Semester -I INTRODUCTION TO SOIL SCIENCE PRACTICALS

Teaching Hours: 2 **Credits:2**

Learning outcomes after completion of this course, the students should have learned the skills"

1. Conducting chemical analysis, Principles, techniques and calculations"

2. About soil physical characteristics, nutrient analysis, and soil Structure"

3. Determination of infiltration rate of the soil, determination of Cat ion Exchange capacity"

PRACTICAL SYLLABUS

1. Soil sampling procedures for field and horticultural crops

2. Determination of EC.

3. Determination of PH of soil.

"4. Land use, texture bulk density, Definition of Soil Physical properties.

"5. Determination of N, P and K of the soil"

6. Determination of Sulphur.

7. Fertilizer recommendations.

"8. Soil health card, parameters, EC, PH and their Importance"

SVCR GOVT.DEGREE COLLEGE, PALAMANER.
Bachelor of vocation: HORTICULTURE 2020 -21
Il Year –III Semester
DISEASES OF HORTICULTURAL CROPS AND THEIR MANAGEMENT
THEORY -CORE II

Teaching Hours:4 **CREDITS :4**

LEARNING OUTCOMES:

1. The students should understand the importance of the course as it deals with crop management and yields of the crop

2. The nature of damage, extent of damage, ETLs remedial measures for crop protection

3. The students should identify the casual organism by seeing the symptoms and nature of damage.

4. The student should know the spraying and spraying equipment and precautions to be taken while

Dealing with plant protection equipment

5. Quick diagnosis, Quick decision, and correct action are very important Lecture outlines

UNIT l

"1. Study of etiology, symptoms, host-parasite relationship and specific management practices of the following diseases.
2. Citrus diseases - Citrus canker, gummosis (Phytophthora and Diplodia), sooty mold, red rust and Loranthus.
3. Guava, Papaya, Ber and Sapota diseases -Guava: wilt and anthracnose. Papaya: foot rot, anthracnose, leaf curl and mosaic and powdery mildew.Ber: Powdery mildew. Sapota: Flat limb.

UNIT 2
1.Grapevine diseases -downy mildew, Powdery mildew, anthracnose, AItemaria leaf spot and rust."
2. Apple and Peach diseases -Apple: scab, powdery mildew, fire blight and crown gall Peach: leaf curl."

UNIT 3

1. Chilies diseases- Damping off, die-back and fruit rot, Fusarium wilt, powdery mildew, Choanephora" blight, Cercospora Jeaf spot, bacterial leaf spot, mosaic complex and leaf curl.

2. Brinjal and Okra diseases -Brinjal- Phomopsis blight and fruit rot, bacterial wilt and little leaf. Okra-Cercospora leaf spot, powdery mildew and Yel1ow Vein Mosaic. B.Voe Horticulture Page 40

3. Potato diseases - early and late blight, black scurf, common scab, wart, black leg, bro-wn rot, leaf roll, mosaics, potato spindle tuber.

4. Tomato diseases - damping off, Ralston wilt, early blight, buck eye rot and leaf curl, Septoria leaf spot, bacteria l canker, root knot. Tomato spotted wilt and mosaic.

UNIT 4

1. Crucifers and Cucurbits diseases -Cruciferous vegetables- Club root, white rust, Downy mildew, powdery mildew, Alternaria leaf spot and black rot. Cucurbits: downy mildew, powdery mildew, Cercospora leaf spot, Erwinia wilt and CMV.

2. Betel vine, onion and garlic diseases -Betel vine: Phytophthora root·and stem rot, sclerotial wilt, Fusarial wilt, Anthracnose. Onion and garlic: Smudge, smut, purple blotch, and Stemphylium blight.

3. Beans, Colocacsia and Coriander diseases -Beans- anthracnose, rust, Bean common mosaic virus and bacterial blight. Colocasi: Phytophthora blight. Coriander-stem gall.

UNIT 5

1. Coconut and oil palm diseases -Coconut- Stem bleeding, Ganoderrna wilt, bud rot, grey blight and Tatipaka disease. Oil palm- Bunch rot and spear rot. Teablister blight Coffee- rust.

2. Turmeric, ginger and mulberry diseases -Turmeri leaf spot, leaf blotch, rhizome rot Ginger: rhizome rot/soft rot, leaf spot. Mulberry-powdery mildew.

3. Rose- dieback. powdery mildew andblack leaf spot. MarigoId: Botrytis blight Chrysanthemum- wilt, stunt, Septoria blotch. Jasmine- rust. Crossandra –wilt

SVCR GOVT.COLLEGE PALAMANER

BACHULORE OF VOACTION: HORTICULTURE 2020-21

II YEAR –III SEMESTER

CORE -III PRODUCATION TECHNOLOGY OF VEGETABLE CROPS

TEACHING HOURS: 4 **CREDITS: 4**

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

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

Unit 1: introduction to Vegetable crops **12 Hrs.**

1. Importance of vegetable cultivation in India and Andhra Pradesh.

2. Classification and Nutritive value of vegetables.

3. Area and production of vegetables in India and Andhra Pradesh.

4. Export and import potential of vegetables in India. Constraints in vegetable production and remedies to overcome them.

Unit 2: Solanaceous and Leafy vegetables **12 Hrs.**

"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) Capsicum (d) Spinach (c) Coriander and (d) Mentha

Unit 3 :Root and Tuber crops **16 Hrs.**

"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) Carrot (b) Beet root(c) Tapioca and (d) Colocasia

Unit 4 :Cole crops **08 Hrs.**

"Importance, morphology and taxonomy, varieties, climate and soil, seeds and sowing,

"manuring, irrigation, intercultura1 operations, diseases and their control, harvesting and

yield of fol1owing crops:

Cultivation of (a) Cabbage and (b) Cauliflower

Unit 5: Leguminous vegetables **12 Hrs.**

"Importance, Morphology and taxonomy, varieties, climate and soil, seeds and sowing, manuring, irrigation, intercultural operations, diseases and their control, harvesting and yield of fol1owing crops:

Cultivation of (a) Cluster bean (b) Cow pea and (d) Dolichos

Practical syllabus

CORE -ID

PRODUCTION TECHNOLOGY OF VEGETABLE CROPS

L Demonstration of seed viability test.

2. Identification of vegetable seeds and vegetable crops at different growth stages

3. Preparing vegetable nursery beds

4. Raising vegetable seedlings in nursery bed and portrays

5. Identification of major diseases and insect pests of vegetables

6. Land preparation for sowing/ transplanting of vegetable crops

7. Sowing/ transplanting of vegetables in main field

8. Fertilizer application for vegetable growing

9. Visit to vegetable field to study methods of vegetable cultivation.