

**GOVT. V.Y.T. PG. AUTONOMOUS COLLEGE,
DURG (CHHATTISGARH)**

DEPARTMENT OF BOTANY

SESSION: 2022-2023

SKILL BASED VALUE ADDED COURSE

NAME OF COURSE: NURSERY AND GARDENING

Course Structure:

- 1. Introduction**
- 2. Objective & Scope**
- 3. Syllabus**
- 4. Duration of the courses**
- 5. Teaching learning methodologies**
- 6. Scheme of Examination Regulation**
- 7. Assessable outcome with assessment criteria**

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INTRODUCTION

This curriculum provides skills and knowledge necessary for nursery and garden expert. There will be both demonstration by trainers/instructors and opportunity by students to carry out the skills/tasks necessary for this level of technical workforce. Students will practice and learn skills by using typical tools, materials and equipment necessary for this program. This curricular program includes tasks/skills and related technical knowledge necessary for nursery and gardening. Our college offers a wide variety of short term and also long-term certificate courses which are conducted after class hours or during semester breaks. These courses are conducted by professionals and industry experts and help students stand apart from the rest in the job market by adding further value to their carriers.

OBJECTIVE

The Value-Added Education Courses aim to provide additional learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students. The main objectives of the program are:

- To impart basic knowledge and develop skills about propagating different types of plants by seed, cuttings, budding and grafting, separation, division, layering as well as micro-propagation in commercially viable way.
- To provide basic knowledge about tools, equipment's and growing structures used in nursery for plant production.
- To impart knowledge on establishment of commercial plant tissue culture unit.
- To provide an opportunity to students to develop inter-disciplinary skills.

DURATION OF THE COURSES: Total 30 hours

(24 hours teaching and 06 hours practical)

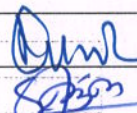
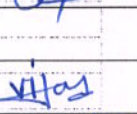
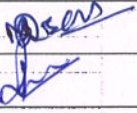
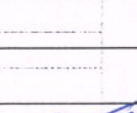
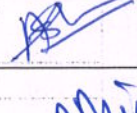
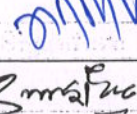
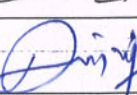


TEACHING LEARNING METHODOLOGIES

- The methods of teachings for garden designing program will be a combination of several approaches such as illustrated lecture, group discussion, demonstration, simulation, guided practice, practical experiences, fieldwork and other independent learning.
- Theory: lecture, discussion, assignment, group work.
- Practical: demonstration, observation, guided practice, independent practice.

Syllabus and Marking Scheme.

Paper No.	Title of the Paper	Marks Allotted
I	Theory	80
II	Practical	20
Total		100
SCHEME OF EXAMINATION:		
Number of questions	20 Questions from the theory module.	
Mode of Examination	Online/Offline as per situations	
Types of question	Multiple Choice Questions (MCQs)	
Duration of Exam	The exam duration is 60 minutes (1 hours)	
Language of Exam	Hindi/English	
Marking Scheme	4 marks are awarded for each correct answer. No negative marking	
Practical Examination	20 questions (MCQs) from practical module	

Name and Signatures of Members Board of Studies

S. No.	Category	Name of Nominated Members	Signature
1.	Chairperson	Dr. Ranjana Shrivastava	
2.	Members	1. Prof. Smt. Gayatri Pandey	
		2. Dr. G. S. Thakur	
		3. Dr. Shriram Kunjam	
		4. Dr. Satish Kumar Sen	
		5. Dr. Vijay Laxmi Naidu	
		6. Mr. Motiram Sahu	
		7. Dr. Rajeshwari Prabha Lahare	
3.	Subject specialist	1. Prof. P.C. Panda Retd. Professor Borsi Durg C.G.)	
		2. Dr. N.B. Singh (Govt. N.PG. Science College Raipur C.G.)	
4.	VC Nominated member	Dr. Aruna Shrivastava (Govt. D.B. Girls PG College Raipur C.G.)	
5.	Corporate/ Industrial area Representative	Shri Manish Jain (Apollo College, Durg C.G.)	
6.	Ex Meritorious Student PG	Umashankar Gayakwad	
7.	Subject expert from other Department	Dr. Divya Minz (Department of Zoology, Govt. V.Y.T. PG. Autonomous College Durg C.G.)	

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SYLLABUS

Module 1: (4 Lectures)

Nursery: Definition, objectives and scope and building up of infrastructure for nursery, planning and seasonal activities- planting, direct seedling and transplants.

Module 2: (6 Lecture)

Seed: Structure and types- Seed dormancy; Causes and methods of breaking dormancy- Seed storage: Seed banks, factors affecting seed viability, genetic erosion- Seed production technology- seed testing and certification.

Module 3 (6 Lectures)

Vegetative Propagation: air- layering, cutting, selection of cutting, collection, season, treatment of cutting, rooting medium and planning of cuttings- hardening of plants- greenhouse- mist chamber, shed root, shade house and glasshouse.

Module 4 (8 Lectures)

Gardening: Definition, objectives and scope- a different type of gardening – landscape and home gardening- parks and its components- plant materials and designing- computer application in landscaping- Gardening operation: soil, laying, manuring, watering management of pests and diseases and harvesting.

Module 5 (6 Lectures)

Sowing/raising of seed and seedlings- Transplanting of seedlings- a study of cultivation of different vegetables: cabbage, brinjal, ladyfinger, onion, garlic, Storage and marketing procedure.

SUGGESTED READINGS

1. Bose T.K. and Mukherjee, D. 1972 Gardening in India, Oxford & IBH Publishing Co. New Delhi.
2. Sandhu, M.K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.
3. Kumar, N., 1997, Introduction to Horticulture, Rajlaxmi Publications, Nagercoil.
4. Edmond Musser & Andres, Fundamentals of Horticultures, McGraw Hill Book Co., New Delhi.

5. Agrawal, P.K. 1993 Handbook of seed technology. Deptt. of Agriculture and Co-operation, National Seed Corporation Ltd., New Delhi.
6. Janick Jules. 1979 Horticultural Science (3rd Ed.), W.H. Freeman and Co. San Francisco.

PRACTICAL

1. Practice of grafting, budding, cutting and layering, anatomical studies of rooting of cuttings and grafting union, planning and layout for commercial nursery,
2. Sample seed testing, use of bioregulators in propagation, sterilization of equipment's and laboratory,
3. Media preparation, selection and preparation of explants, meristem culture and micrografting, planning and layout of experiments on various aspects of propagation.
4. Visit to tissue culture labs and nurseries.

5. Agrawal, P.K. 1993 Handbook of seed technology. Deptt. of Agriculture and Co-operation, National Seed Corporation Ltd., New Delhi.

COURSE OUTCOME:

On successful completion of this course, the students will be able to perform soil and plant nutrients management activities, make compost, perform nursery planning and management activities, perform plant protection activities, be familiar with various gardens, perform garden development activities, maintain garden and garden plants, propagate the plant, arrange and decorate house plants, prepare and maintain the lawn, market plants, perform communication and professionalism development activities, and perform entrepreneurship development activities

Course Coordinator: Dr. Shriram Kunjam

COURSE OUTCOME:


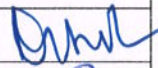

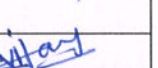
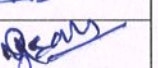
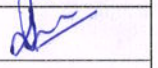
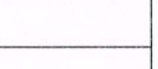


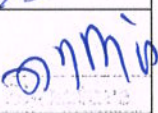
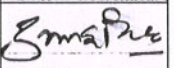
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