

**DR. AMBEDKAR UNIVERSITY OF SOCIAL SCIENCES,
DR. AMBEDKAR NAGAR (MHOW),
School of Education**



**Department of Skill Development
Syllabus Certificate course
in
Gardener**

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Programme learning Outcomes:

- Effectively identify, select & use the specified tools and equipment relevant to gardening works.
- Prepare root stocks Preparing root stocks for grafting, budding
- understands Layout and design the Garden component
- Area Measurement and planning for the layout and design of garden.
- Maintain the Garden identify and select the tools for Pruning, training, trimming and develop healthy Garden.

Specific Learning Outcome:

- After completing this programme, participants will be able to:
- Branches of Horticulture, gardening and environment, qualities of successful gardener.
- Familiarisation with various types of vegetable plants, seeds, various types of flowers, seasonal flowers, Fertiliser, pesticides, their uses.
- Familiarisation with different tools and equipment's used in gardening work.
- Safety precaution to be observed in handling the Horticulture tools, equipment's and materials.



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Eligibility:- All those people who have interest in gardening

Durations- 3 Months

Credits- 20 Credits, theory and practical / file work

Fees: According to university Rules

Total seats- 30 (as required)

At the end of this course students are aware and have an understanding of following:

Sr. No	Title	Theory/ Practical	Marks (Total)	Distribution of Marks		Classes		Credits
				Theory	Practical	Theory	Practical	
I	Introduction to Gardening	Theory/ Practical	100	40%	60%	2	2	Practical Credits
II	Nursery management and Propagation of Plant Material	Theory/ Practical	100	40%	60%	2	2	Theory Credits
III	Designing of Garden Components Understand the features of Garden	Theory/ Practical	100	40%	60%	2	2	Project Credits
IV	Plantation, Maintenance and Care of Garden	Theory/ Practical	100	40%	60%	2	2	
V	Sap Therapy/ Food Diet	Theory/ Practical	100	40%	60%	2	2	
VI	Health & Safety at the work place	Theory/ Practical	100	40%	60%	2	2	
VII	Internship/file Work						100	
	Total		600					20

Note: The above programme structure can be modified as per requirement from time to time in Accordance with University Ordinance

Exam Pattern: - Total Number of Marks for the Course – 600 Marks

Total Marks		600
Theory		40%
Practical		60%
Internal	External	
60	40	

- After the completion of course exam (theory + Practical) will be held accordingly to the university and certificate will be provided by the university.

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Rinky

Introduction to Gardening (Paper I)

Syllabus

- Introduction to Gardening
- Introduction to gardening tools
- Selection & Management of Equipment
- Layout the garden and their design
- Concept and techniques of bonsai
- Types of Garden
 - Gain knowledge about the Aesthetic value of garden.
 - Study the Value in terms of money for gardening
 - Study the Planting materials for gardening.
- Basic Principles of Gardening
- Soil & Nutrient Management
- Nursery Management and Propagation of Plant Material
- Nursery Management
- Nursery plant trimming, shape,

Suggested Reading:

Mckay, G. A. (2011). *Radical gardening: politics, idealism & rebellion in the garden*. Frances Lincoln.

Hayes, F. C. (1901). *Handy Book of Horticulture: An Introduction to the Theory and Practice of Gardening*. Murray.

Henderson, J. (2002). Columella's living hedge: the Roman gardening book. *The Journal of Roman Studies*, 92, 110-133.

Henderson, J. (2004). *The Roman book of gardening*. Routledge.

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(Rishu)

Nursery Management and Propagation of Plant Material (Paper-II)

- Identify appropriate garden crops as per soil & climatic conditions.
- Prepare nursery bed & seedlings
- Transplant the seedlings
- Maintain farm book keeping
- Prepare the root stocks and practice Propagation techniques.
- Practice cutting, grafting, budding and layering techniques
- Establish the physical infrastructure like shade house, green house, mist chamber, irrigation system.
- Understand the soil mixtures and seed beds.
- Understand the basic botany for garden crops.
- Gain knowledge about the Water, Media & Nutrition requirement for garden crops.
- Study the Fertilizer requirement of garden crops.
- Practice Pest & Disease Management of garden crops.
- Understand the irrigation methods /requirements of garden crops.
- Maintain cleanliness in nursery by sweeping trashes and pulling out dead plant parts

Suggested Reading:

1. Mason, J. (2004). Nursery management. Landlinks Press. Chanana, Y. R., & Gill, M. I. S. (2008). Propagation and nursery management.
2. Akinnifesi, F. K., Sileshi, G., Mkonda, A., Ajayi, O. C., Mhango, J., & Chilanga, T. (2007). Germplasm supply, propagation and nursery management of miombo fruit trees. Indigenous fruit trees in the tropics: domestication, utilization and commercialization. CABI, 341-68.
3. Singh, R. R., Meena, L. K., & Singh, P. (2017). High tech nursery management in horticultural crops: a way for enhancing income. Int. J. Curr. Microbiol. App. Sci, 6(6), 3162-3172.
4. Loreti, F., & Morini, S. (2008). Propagation techniques. The Peach: Botany, production and uses. CABI, UK, 221-243.

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Designing of Garden Components Understand the features of Garden (Paper-III)

- Gain knowledge about the different types of Garden
- Plan for the Design and Layout of Gardens.
- Layout & prepare the lawn
- Layout of orchard, plant fruit plants in the field. Understand the different components of garden.
- Implement the techniques to beautify the gardens.

Suggested Reading:

1. Takei, J., & Keane, M. P. (2011). *Sakuteiki: Visions of the Japanese garden*. Tuttle Publishing.
2. Lin, B. B., Egerer, M. H., & Ossola, A. (2018). Urban gardens as a space to engender biophilia: Evidence and ways forward. *Frontiers in Built Environment*, 4, 79.
3. Wojtkowski, P. A. (1993). Toward an understanding of tropical home gardens. *Agroforestry Systems*, 24(2), 215-222.
4. Zuiker, S. J., & Riske, A. K. (2021). Growing garden-based learning: mapping practical and theoretical work through design. *Environmental Education Research*, 27(8), 1152-1171.
5. Shwartz, A., Cheval, H., Simon, L., & Julliard, R. (2013). Virtual garden computer program for use in exploring the elements of biodiversity people want in cities. *Conservation Biology*, 27(4), 876-886.
6. Ballantyne, R., Packer, J., & Hughes, K. (2008). Environmental awareness, interests and motives of botanic gardens visitors: Implications for interpretive practice. *Tourism management*, 29(3), 439-444.

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Rishu

Plantation, Maintenance and Care of Garden (Paper-IV)

Understand the seasonal Gardening and Ground maintenance.

- Understand the different planting and Culture of Floral Display.
- Understand and perform the irrigation maintenance in the garden.
- Practice Pest and Disease management.
- Perform field operations like Maintain Lawn and Turf, Mowing, Fertilizing, Weeding, Irrigation, Aeration and Renovation.
- Gain knowledge about the different Plant and Culture of Trees, shrubs etc
- Identify different fruit plants & ornamental plants
- Prepare pot mixtures, potting & repotting of plants
- Prune shrubs, hedge, edge & topiary
- Collect soil samples for soil analysis
- Identify vegetable seed, garden tools & implements
- Prepare Bordeaux mixture
- Prepare spray solution, handling sprayers & dusters

Plantation, Maintenance and care of Garden

Suggested Reading:

1. Kabir, M. A. (2007). Tea Plantation workers and its working circumstances: A micro-level study. *The Economic Journal of Nepal*, 30(119), 185-194.
2. Baruah, J. Two Leaves and a Bud: Revisiting the Colonial Spaces from Plantation to Bagan (garden).
3. Evans, J. (1992). *Plantation forestry in the tropics: tree planting for industrial, social, environmental, and agroforestry purposes*. Oxford University Press.
4. PEVERI, V. (2021). Inside the Ensete Garden, Beyond the Plantation: Perennial Polycultures for Radically Sustainable Food Systems. *The International Journal of Sociology of Agriculture and Food*, 27(1), 141-159.
5. Kabir, M. A. (2007). Tea Plantation workers and its working circumstances: A micro-level study. *The Economic Journal of Nepal*, 30(119), 185-194.

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Amika

Health & Safety at the work place (Paper V)

- Understand the basic safety measures.
- Understand the minimization of environmental damage during farm operations.
- Proper use of equipment.
- Practice General safety and first aid
- Maintain health & Safety at the work place

Suggested Reading:

1. Clarke, S., & Cooper, C. (2004). *Managing the risk of workplace stress: Health and safety hazards*. Routledge.
2. Loeppke, R. R., Hohn, T., Baase, C., Bunn, W. B., Burton, W. N., Eisenberg, B. S., & Siuba, J. (2015). Integrating health and safety in the workplace. *Journal of Occupational and Environmental Medicine*, 57(5), 585-597.
3. Thomason, T., & Pozzebun, S. (2002). Determinants of firm workplace health and safety and claims management practices. *ILR Review*, 55(2), 286-307.

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