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## SKILL ENHANCEMENT COURSE (SEC): FUNDAMENTALS OF HORTICULTURE

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Open for First Year Graduate Student w.e.f. 2023-24

**RECOMMENDED BY THE BOARD OF STUDIES IN BOTANY  
AND  
APPROVED BY THE ACADEMIC COUNCIL**

Devrukh Shikshan Prasarak Mandal's  
Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and  
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.  
Tal.Sangmeshwar, Dist. Ratnagiri-415804, Maharashtra, India

Academic Council Item No: 03 Dated 08/07/2023

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangmeshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Science
Name of the Class to Which the course is Open	:	First Year, Semester Second
No. of Credits	:	02
Title of the Course	:	Fundamentals of Horticulture
Course Code	:	BTSE102
Passing Marks	:	40%
Nature of Course	:	Skill Enhancement Course (SEC)
Level	:	UG
Pattern	:	70:30
Status	:	Multidisciplinary- Open to all in the First Year
To be implemented from Academic Year	:	2023-2024

**Skill Enhancement Course (SEC) in Fundamentals of Horticulture**  
**(With effect from the academic year 2023-24)**

**SEMESTER-II**

**Paper No.– I**

**Course Title: Fundamentals of Horticulture**

**No. of Credits - 02**

**Type of Vertical: Skill Enhancement Course (SEC)**

**COURSE CODE: BTSE102**

**Learning Outcomes Based on BLOOM's Taxonomy:**

After completing the course, the learner will be able to...		
Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	Recall Fundamentals of horticulture and processes involved.
CLO-02	Understand	Explain the role and importance of steps involved in plant propagation.
CLO-03	Apply	Apply techniques of gardening
CLO-04	Analyse	Differentiate various processes of plant propagation
CLO-05	Evaluate	Justify the significance of horticultural crops.

**Syllabus for Skill Enhancement Course (SEC) in Fundamentals of Horticulture**

**(With effect from the academic year 2023-2024)**

**Title of the Course: Fundamentals of Horticulture**

**COURSE CODE: BTSE102**

**Credits - 02**

<b>COURSE CONTENT</b>		
<b>Module No.</b>	<b>Content</b>	<b>Lectures (1 Hr.)</b>
1	<p><b>Horticulture and Gardening</b></p> <ol style="list-style-type: none"> <li>1. Study about horticulture and gardening, it's branches</li> <li>2. Study about Garden Tools and Implements</li> <li>3. Study of garden types</li> <li>4. Preparation of Terrarium</li> <li>5. Preparation of Dish Garden</li> <li>6. Preparation of Vertical garden</li> <li>7. Preparation of landscape design and implement planting</li> <li>8. Practice basic bonsai techniques</li> <li>9. Practice shaping plants into topiaries</li> <li>10. Demonstrate hydroponic setups and Soilless Cultivation</li> </ol>	15
2	<p><b>Horticultural Crops and Plant propagation</b></p> <ol style="list-style-type: none"> <li>11. Study about System of Planting</li> <li>12. Identification of Tropical Fruit Crops of India</li> <li>13. Identification of Sub-Tropical Fruit Crops of India</li> <li>14. Identification of Temperate Fruits of India</li> <li>15. Identification Characteristics of Different Vegetable Crops</li> <li>16. Identification of Major Flower Crops of India</li> <li>17. Plant propagation by cutting</li> <li>18. Plant propagation by Layering</li> <li>19. Plant propagation by Garfting</li> <li>20. Visit to orchard</li> </ol>	15

**References:**

Bose, TK., Mitra, SK. and Sadhu, K. 1986. Propagation of tropical and subtropical horticultural crops. Naya Prokash, Calcutta.

- Denixon, RI. 1979. Principles of Horticulture. Mac Millan, New York.
- Edmond, JB., Sen, TD, Andrews, TS and Halfacre, RG. 1977. Fundamentals of Horticulture. Tata McGraw Hill, New Delhi.
- Hartmann, HT. and Kester, DE.1986.Plant propagation - Principles and practices.Prentice-Hall, New Delhi.
- Leopold, A.C. and Kriedeman, P.E. 1975.Plant Growth and Development. Tata McGrawHill Publishing Co. Ltd., New Delhi.
- Chadha, K. L. 2003. Handbook of Horticulture, ICAR, New Delhi.Choudhury, B.1983. Vegetables. National Book Trust, New Delhi.
- Das, P. C.1993. Vegetable crops in India.Kalyani Publishers
- Gopalakrishnan, T. R. 2007. Vegetable Crops.New India Publishing Agency, New Delhi