

KONGUNADU ARTS AND SCIENCE COLLEGE
(Autonomous)
Coimbatore -641 029



Department of Botany

Certificate Course - Bonsai

Certificate Courses – Bonsai (Six months)

| Semester | Subject Code | Title of the Paper | Instruction hours /cycle | Exam Marks | | | Duration of Exam (hours) | Credits |
|----------|--------------|--|--------------------------|------------|-----|-------|--------------------------|---------|
| | | | | CIA | ESE | Total | | |
| | 18CCB101 | CC.P.1- Introduction to Bonsai Principles and Techniques | 2 | 25 | 75 | 100 | 3 | 2 |
| | 18CCB102 | CC.P.2- Ethics, Values and Marketing of Bonsai | 2 | 25 | 75 | 100 | 3 | 2 |
| | 18CCB1CL | Practical | 2 | 40 | 60 | 100 | 3 | 2 |
| | 18CCB1Z1 | Project Report submission | 2 | 20 | 80 | 100 | 3 | 2 |
| | | Grand Total | 8 | | | 400 | | 8 |

BLOOM'S TAXONOMY BASED ASSESSMENT PATTERN

K1 - Remember; **K2** - Understanding; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate

1. Theory Examination - Part I, II & III

(i) CIA I & II and ESE: 75 Marks

| Knowledge Level | Section | Marks | Description | Total |
|-------------------|-----------------------|-------------|------------------------|-------|
| K1 Q1 to 10 | A (Answer all) | 10 x 1 = 10 | MCQ | 75 |
| K2 Q11 to 15 | B (Either or pattern) | 5 x 5 = 25 | Short Answers | |
| K3 & K4 Q16 to 20 | C (Either or pattern) | 5 x 8 = 40 | Descriptive / Detailed | |

2. Practical Examination:

| Knowledge Level | Section | Marks | Total |
|-----------------|------------------------------|-------|-------|
| K3 | Experiments & Record Work | 50 | 60 |
| K4 | | 10 | |
| K5 | | | |

3. Project Viva Voce:

| Knowledge Level | Section | Marks | Total |
|-----------------|----------------------------|-------|-------|
| K3 | Project Report & Viva voce | 60 | 80 |
| K4 | | 20 | |
| K5 | | | |

Components of Continuous Internal Assessment (CIA)

| Components | | | Marks | Total |
|-----------------------------|----------------------|----|------------------------|-------|
| Theory | CIA I | 75 | (75+75 = 150/10) 15 | 25 |
| | CIA II | 75 | | |
| Assignment / Seminar | | | 5 | |
| Attendance | | | 5 | |
| Practical | | | | |
| | CIA Practical | | 25 | 40 |
| | Observation Notebook | | 10 | |
| | Attendance | | 5 | |
| Project | | | | |
| | Review | | 15 | 20 |
| | Regularity | | 5 | |

| | | | |
|------------------------------|--|---------------------------|----------------------|
| Programme Code: 05 | Title: CERTIFICATE COURSE - BONSAI | | |
| Course Code: 18CCB101 | 1. INTRODUCTION TO BONSAI PRINCIPLES AND TECHNIQUES | | |
| Batch 2018-2019 | Hours / Week 2 | Total Hours 30 | Credits 2 |

COURSE OBJECTIVES

- To know the latest development in the field of Bonsai.
- To develop skills in the area of designing, styles and making of bonsai.
- To create knowledge on self employment through and entrepreneur skills.

COURSE OUTCOMES

On successful completion of the course, the students will be able to

| | | |
|----|-----|---|
| K1 | CO1 | Recognize about preliminary techniques about Bonsai. |
| K2 | CO2 | Understand the necessary skills to take care and maintain a Bonsai plant. |
| K3 | CO3 | Apply knowledge on Bonsai cultivation and marketing. |
| K3 | CO4 | Implement the acquired knowledge on commercial applications Bonsai |

SYLLABUS

UNIT I: (6 hours)

Introduction - history, aim, scope and importance of Bonsai - Identification and collection of suitable plants for bonsai making.

UNIT II: (6 hours)

Tools, containers, wiring and preparation of media. Designing, Styles and making of bonsai. Training and pruning techniques in bonsai. Irrigation, pest and disease management.

UNIT III: (6 hours)

Styles of Bonsai - Upright Style, Formal Upright, Informal Upright Style, Slanting Style Windswept Style, Broom Style.

UNIT IV: (6 hours)

Cascade Styles of Bonsai - Semi Cascade Style, Formal Cascade Style, Informal or Vertical Cascade Style, Displaying Cascade Style Bonsai.

UNIT V: (6 hours)

Multiple tree styles of Bonsai - Two-Tree and Twin Trunk Style Bonsai. Forest Style Bonsai*. Bonsai with Special Characteristics.

*** Self study**

Teaching Methods

Power Point presentation/Seminar/Discussion/Assignment

TEXT BOOKS

1. Paul Lesniewicz., 1994. Bonsai in your home. Sterling publishing Co, New York.
2. Randhawa, G.S., and Amitabha Mukhopadhyay, 2000. Floriculture in India, Allied publishers, India.

REFERENCES

1. Roy Edwin Biles, (2003). The complete Book of Gardening. Biotech Books, Delhi - 35.
2. Bhattacharjee, S.K. (2006). Advances in Ornamental Horticulture. Pointer Publication, Jaipur.
3. Doesh Beer Singh and Poonam Wazir, (2002). Bonsai - An art. Scientific Publishers, Jodhpur.

MAPPING

| CO \ PSO | PSO1 | PSO 2 | PSO 3 | PSO 4 | PSO 5 |
|-----------------|-------------|--------------|--------------|--------------|--------------|
| CO1 | S | H | H | M | H |
| CO2 | S | M | H | H | M |
| CO3 | H | S | M | H | H |
| CO4 | S | H | M | S | M |

S - Strong

H - High

M - Medium

L - Low

| | | | |
|------------------------------|--|---------------------------|----------------------|
| Programme Code: 05 | Title: CERTIFICATE COURSE - BONSAI | | |
| Course Code: 18CCB102 | 2. ETHICS, VALUES AND MARKETING OF BONSAI | | |
| Batch 2018-2019 | Hours / Week 2 | Total Hours 30 | Credits 2 |

COURSE OBJECTIVES

- To know the ethical value of bonsai
- To understand the common and special types of bonsai.
- To recognize the marketing potential of bonsai in India

COURSE OUTCOMES

On successful completion of the course, the students will be able to

| | | |
|----|-----|--|
| K1 | CO1 | Recognize the traditions and rituals values of bonsai |
| K2 | CO2 | Understand the types of commercial and aesthetic types of bonsai |
| K3 | CO3 | Implement knowledge on marketing practice of bonsai |
| K3 | CO4 | Describe the economic value of bonsai |

SYLLABUS

UNIT I: (6 hours)

Bonsai rules, traditions and rituals - Respect for Nature and conservation - Miniature Bonsai - Developing Miniature Bonsai, Containers and Soil for Miniature Bonsai, Care and Maintenance.

UNIT II: (6 hours)

Special techniques in Bonsai - Driftwood Style, Selecting Material for Driftwood Style Bonsai, Creating Driftwood Style Bonsai and Dead Wood on Bonsai. Root over rock bonsai.

UNIT III: (6 hours)

Collecting, refining and displaying Bonsai - Sources of Material for Bonsai, Collecting Material from the Ground, Buying Material, Propagating Bonsai Material by, Seeds, Cuttings, Dividing, Grafting and Layering.

UNIT IV: (6 hours)

Refining Bonsai, Review the Basic Styles*, Species, Roots, Trunk, Branches and Foliage, Container, Soil and Displaying. Displaying in a Private Collection, Displaying in a Public Exhibit.

UNIT V:**(6 hours)**

Economic importance of Bonsai in tribal livelihood - marketing of Bonsai in ecotourism places. Bonsai - Rehabilitation prospects.

*** Self study****Teaching Methods**

Power Point presentation/Seminar/Discussion/Assignment

Text books

1. Chadha, K.L., 2001. Handbook of horticulture. ICAR, New Delhi.
2. Bhattacharjee, S.K., 2004. Landscape gardening and design with plants. Aavishkar Publishers and Distributors, Jaipur, India.

MAPPING

| CO \ PSO | PSO1 | PSO 2 | PSO 3 | PSO 4 | PSO 5 |
|-----------------|-------------|--------------|--------------|--------------|--------------|
| CO1 | S | H | H | M | H |
| CO2 | S | M | H | H | M |
| CO3 | H | S | M | H | H |
| CO4 | S | H | M | S | M |

S - Strong

H - High

M - Medium

L - Low

| | | | | |
|------------------------------|-----------------------|---|---------------------------|----------------------|
| Programme Code: 05 | | Title: CERTIFICATE COURSE - BONSAI | | |
| Course Code: 18CCB1CL | | Practical | | |
| Batch 2018-2019 | Semester I | Hours / Week 2 | Total Hours 30 | Credits 2 |

COURSE OBJECTIVES

- To identify the wild plants species for bonsai making.
- To select the suitable tools for bonsai making.
- To prepare the bonsai of market value.

COURSE OUTCOMES

On successful completion of the course, the students will be able to

| | | |
|----|-----|---|
| K3 | CO1 | Understand the programmes being carried out to conserve species through bonsai techniques |
| K4 | CO2 | Investigate the current status of bonsai . |
| K5 | CO3 | Implement the acquired knowledge on commercial applications of Bonsai |

LIST OF PRACTICALS

1. To know the identification of Plants suitable for making bonsai
2. To know the Identification of tools for making bonsai
3. To know the role fertilizer and its importance for bonsai making
4. To select the suitable plants to make different styles of bonsai
5. To acquire knowledge on special styles in bonsai

MAPPING

| PSO CO | PSO1 | PSO 2 | PSO 3 | PSO 4 | PSO 5 |
|--|-------------|--------------|--------------|--------------|--------------|
| CO1 | S | H | S | M | S |
| CO2 | S | M | H | S | H |
| CO3 | H | H | M | H | H |
| S - Strong H - High M - Medium L - Low | | | | | |

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CERTIFICATE COURSE QUESTION PAPER (PRACTICALS)

End semester Examination Question Paper Pattern

(For the candidates admitted from the academic year 2018-19 onwards)

Time: 3 Hours

Max. Marks: 100 Marks

BREAK UP OF MARKS

| | |
|--|-----------|
| A. Identification of Plants suitable for making bonsai | -15 Marks |
| B. Identification of tools for making bonsai | -15 Marks |
| C. Cutting, Wiring and Pruning techniques | -20 Marks |
| D. Role of fertilizer and its importance for bonsai making | - 5 Marks |
| E. Styles of bonsai | -15 Marks |
| F. Set-up Root over Rock | -10 Marks |

| | |
|--------|------------|
| Record | - 20 Marks |
|--------|------------|

| | |
|--------------|--------------------|
| TOTAL | - 100 Marks |
|--------------|--------------------|

| | | | | |
|------------------------------|-----------------------|---|---------------------------|----------------------|
| Programme Code: 05 | | Title: CERTIFICATE COURSE - BONSAI | | |
| Course Code: 18CCB1Z1 | | Project Report Submission | | |
| Batch 2018-2019 | Semester I | Hours / Week 2 | Total Hours 30 | Credits 2 |

COURSE OBJECTIVES

- To identify and utilize plants species from natural habitats for bonsai making.
- To select the suitable plants for designing bonsai.
- To gain knowledge on aesthetic value of bonsai of global importance.

COURSE OUTCOMES

On successful completion of the course, the students will be able to

| | | |
|----|-----|---|
| K3 | CO1 | Develop architectural skills in bonsai making. |
| K4 | CO2 | Analyze the sustainable utilization of tree species obtained from various natural vegetation. |
| K5 | CO3 | Evaluate the nature and various styles of bonsai. |

*Submission and Evaluation of Project Report

MAPPING

| CO \ PSO | PSO1 | PSO 2 | PSO 3 | PSO 4 | PSO 5 |
|-----------------|-------------|--------------|--------------|--------------|--------------|
| CO1 | S | H | S | M | S |
| CO2 | S | M | H | S | H |
| CO3 | H | H | M | H | H |

S - Strong **H - High** **M - Medium** **L - Low**