



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number	Course Title	Credits
OHT 102	Ornamental Horticulture	3
Hours: Lecture/Lab/Other	Co- or Pre-requisite	Implementation Semester & Year
2/2/0	None	Spring 2023

Catalog description: Examines plant propagation, plant pests, landscape establishment and maintenance, greenhouse management, principles of landscape design, and fruit and vegetable production. May be taken independently of OHT 101.

General Education Category: Not GenEd **Course Coordinator:**
Professor Amy Ricco
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Required texts & Other materials: On-line resources posted through BlackBoard.

Course Student Learning Outcomes (SLO):

Upon successful completion of this course, the student will be able to:

1. Draw a basic landscape plan. [Supports ILG# 2 and 11; PLO# 1]
2. Develop a production plan for growing fruits and vegetables. [Supports ILG# 11; PLO# 1]
3. Produce transplants from seed. [Supports ILG# 3 and 11; PLO# 4]
4. Operate basic greenhouse systems. [Supports ILG# 3 and 11; PLO# 4]
5. Recognize common weeds, insects, and diseases. [Supports ILG# 10; PLO# 5]
6. Implement an IPM program. [Supports ILG# 9, 10, and 11; PLO# 5]
7. Recognize common plant material used in gardens and landscapes. [Supports ILG# 10; PLO# 1]
8. Demonstrate basic lawn and landscape maintenance. [Supports ILG# 11; PLO# 1]
9. Develop knowledge of growth requirements for annuals, perennials, trees, and shrubs. [Supports ILG# 11; PLO# 1]
10. Prepare a site for planting. [Supports ILG# 11; PLO# 2]
11. Diagnose and treat common problems of both indoor and outdoor plants. [Supports ILG# 9, 10 and 11; PLO# 5]
12. Demonstrate good customer and co-worker relations in the work place. [Supports ILG# 9]
13. Develop a planting schedule for growing greenhouse crops. [Supports ILG# 10 and 11; PLO# 4]
14. Explain the correct handling of fruits and vegetables after harvesting. [Supports ILG# 10; PLO# 1]
15. Demonstrate basic knowledge of soils, fertilizers, and watering. [Supports ILG# 3; PLO# 2 and 3]

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Institutional Learning Goal 3. Science. Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

Institutional Learning Goal 9. Ethical Reasoning and Action. Students will understand ethical frameworks, issues, and situations.

Institutional Learning Goal 10. Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Ornamental Horticulture AAS (PLO)

1. Identify, propagate, and care for at least 300 different woody and herbaceous plant specimens;
2. Implement a soils management plan using modern irrigation and nutrient control techniques;
3. Properly apply common pesticides and fertilizers to achieve optimum growing conditions for plants and crops;
4. Produce and manage common greenhouse crops;
5. Practice integrated pest management.

Units of study in detail – Unit Student Learning Outcomes:

Unit I Fundamentals of Horticulture; Divisions of Horticulture; Seed Production Supports Course SLO # 3, 12, and 13

Learning Objectives

The student will be able to:

- Identify the benefits of Horticulture.
- Explain the concept of Ornamental Horticulture and describe the different divisions of the Horticulture industry.
- Demonstrate proper seed planting and germination.

Unit II Residential Landscape Planning and Installation Supports Course SLO # 1, 7, and 9

Learning Objectives

The student will be able to:

- Demonstrate an understanding of public, private and utility spaces within a landscape.
- Analyze different landscapes to understand how design principles and elements are used.
- Explain the difference between a needs analysis and a site analysis.
- Identify the characteristics of plants that should be taken into consideration when selecting plants for a landscape.

Unit III Site Preparation Supports Course SLO # 10 and 15

Learning Objectives

The student will be able to:

- Identify the different soil particles that make up a loam soil.
- Explain how to make compost as a soil amendment.
- Demonstrate the appropriate way to use soil amendments to improve soil structure.

Unit IV Soils, Water, Nutrients, and Fertilizers Supports Course SLO # 10 and 15

Learning Objectives

The student will be able to:

- Identify the essential nutrients plants need to grow properly.
- Analyze different fertilizers and identify what can be used in different circumstances.
- Demonstrate proper watering techniques for different types of soils and situations.

Unit V Indoor Plant Growth and Maintenance Supports Course SLO # 5, 11 and 15

Learning Objectives

The student will be able to:

- Analyze different growing conditions to recognize which kinds of plants are best suited for common indoor environments.
- Demonstrate proper care and maintenance of houseplants to include transplanting, watering, fertilizing and pest management.

Unit VI Diagnosing and Treating Plants Disorders Supports Course SLO # 5, 6 and 11

Learning Objectives

The student will be able to:

- Identify common weeds, insects and diseases that negatively impact the growth of plants.
- Explain the concept of Integrated Pest Management.
- Demonstrate how IPM techniques are used in the management of pests.

Unit VII Greenhouse Types, Designs, and Systems Supports Course SLO # 4

Learning Objectives

The student will be able to:

- Identify different types of greenhouses used in plant production.
- Analyze different greenhouse coverings and systems to determine the appropriate time to implement each one.
- Demonstrate the proper use of greenhouse systems and equipment.

Unit VIII Landscape Establishment, Care, and Maintenance Supports Course SLO # 5, 8 and 15

Learning Objectives

The student will be able to:

- Demonstrate correct planting, staking, mulching, pruning and watering techniques for landscape plants based on current industry standards.

Unit IX Lawn Establishment, Care, and Maintenance Supports Course SLO # 5, 8 and 15

Learning Objectives

The student will be able to:

- Demonstrate correct site preparation for the planting of grass seed and sod.
- Demonstrate correct techniques in planting grass seed and sod.
- Explain how to properly maintain turf areas within a landscape to include watering, fertilization, mowing, pest control, and aeration.

Unit X Vegetable and Fruit Production Supports Course SLO # 2 and 14

Learning Objectives

The student will be able to:

- Explain the amount of production time needed to produce fruit for common food products.
- Identify which vegetable crops are cool season and which are warm season.
- Explain pollination requirements for common fruit crops.
- Draw a layout for a fruit and vegetable production garden.
- Demonstrate how to properly maintain vegetable gardens and orchards.

Evaluation of Student Learning: [Evaluates SLO's #1 – 15]

Achievement of the course objectives will be evaluated by the following tools:

- Weekly quizzes based on lecture material.
- 3 unit exams based on lecture material.
- Completing a landscape design project.
- Producing bedding plant crops during lab.
- Completing remote lab assignments to reinforce concepts.

Students will be evaluated based on the following point system.

Exam #1	100
Exam #2	100
Exam #3	100
Weekly Quizzes	160
Landscape Design Project	100
Bedding Plant Project	100
Misc. Remote Lab Assignments	<u>40</u>
Total	700