# Floriculture & Greenhouse Management Course No. 18057 Credit: 1.0

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| --- | --- | --- | --- |
| **Student name:** |  | **Graduation Date:** |  |

Pathways and CIP Codes:Plant Systems (01.1101)

Course Description:

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Career Opportunities

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Identifies various careers in floral design and greenhouse management |  |
| 1.2 | Summarizes different educational requirements |  |
| 1.3 | Identify scope of floriculture and greenhouse operations in Kansas, domestically, and nationally |  |

## Benchmark 2: Safety

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Identify tools used in floriculture and greenhouses |  |
| 2.2 | Describe and demonstrate proper hand tool safety |  |
| 2.3 | Demonstrate proper use of power tools |  |
| 2.4 | Explain proper pesticide safety procedures |  |
| 2.5 | Demonstrate safe use of plant growth regulators |  |
| 2.6 | Be aware of electrical hazards and water in the greenhouse |  |

## Benchmark 3: Plant Identification & Classification

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Use scientific plant names correctly |  |
| 3.2 | Describe plants using taxonomic terms |  |
| 3.3 | Identify 20 plants commonly found in a greenhouse or floral shop (cut flowers, bedding flowers, house plants, nursery stock, and bulbs) |  |

## Benchmark 4: Greenhouse Structures

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Determine location and orientation of greenhouses |  |
| 4.2 | Discuss the difference in greenhouse designs |  |
| 4.3 | Identify different types of benches |  |
| 4.4 | Discuss different environmental controls (heating, cooling, air circulation, lighting, and humidity) |  |
| 4.5 | Differentiate between different irrigation and watering systems. |  |
| 4.6 | Calculate operation costs and greenhouse structure costs |  |

## Benchmark 5: Plant Media & Growing Containers

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Prepare and grow plants in a soil-less media |  |
| 5.2 | Identify basic types and sizes of containers used in commercial greenhouses |  |
| 5.3 | Explain the components of a soil-less media |  |
| 5.4 | Calculate soil amounts for different pots |  |

## Benchmark 6: Greenhouse Cultural Practices

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Identify different light requirements for different greenhouse crops |  |
| 6.2 | Determine different temperature requirements for different greenhouse crops |  |
| 6.3 | Describe humidity requirements for different greenhouse crops |  |
| 6.4 | Identify factors that promote good air quality in a greenhouse |  |
| 6.5 | Determine the amount of water needed for common greenhouse crops |  |

## Benchmark 7: Greenhouse Management

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 7.1 | Propagate plants sexually and asexually |  |
| 7.2 | Calculate fertigation requirements |  |
| 7.3 | Calculate bench space for different sizes of pots |  |
| 7.4 | Regulate pH in soil and water |  |

## Benchmark 8: Greenhouse Production

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 8.1 | Learn proper technique for poinsettia, Easter lily, and Chrysanthemum production |  |
| 8.2 | Demonstrate bedding plant production methods |  |
| 8.3 | Learn hydroponic methods of plant production |  |
| 8.4 | Design or develop a greenhouse planting schedule |  |

## Benchmark 9: Integrated Pest Management

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 9.1 | Identify common pests and diseases in Kansas greenhouses |  |
| 9.2 | Describe control methods, sanitation, chemical formulations, and equipment used to control pests in the greenhouse |  |
| 9.3 | Identify safety guidelines for pesticide use |  |
| 9.4 | Read chemical label and use the chemical properly |  |
| 9.5 | Dispose of chemicals according to EPA recommendations |  |

## Benchmark 10: Perform basic principles of floral design

### Competencies

| **#** | **Description** | **rating** |
| --- | --- | --- |
| 10.1 | Identify basic principles of floral arranging and floral design |  |
| 10.2 | Identify basic design shapes |  |
| 10.3 | Identify color relationships |  |

## Benchmark 11: Discuss the necessary mechanics of floral design

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 11.1 | Identify and safely use design tools and supplies |  |
| 11.2 | Construct bows using basic ribbon widths |  |
| 11.3 | Select and prepare appropriate containers |  |
| 11.4 | Perform basic wiring and taping techniques |  |
| 11.5 | Package flowers and arrangements for delivery |  |

## Benchmark 12: Demonstrate creation of a variety of floral designs

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 12.1 | Identify how floral designs are used |  |
| 12.2 | Construct corsages and boutonnieres |  |
| 12.3 | Construct a bud vase |  |
| 12.4 | Construct a one sided arrangement |  |
| 12.5 | Construct a centerpiece |  |
| 12.6 | Construct an evergreen wreath |  |
| 12.7 | Construct a silk arrangement |  |
| 12.8 | Construct a dried arrangement |  |
| 12.9 | Construct a dish garden |  |

## Benchmark 13: Discuss Post-harvest Handling Procedures

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 13.1 | Describe how plant processes affect shelf life |  |
| 13.2 | Demonstrate techniques for the processing of cut plant materials |  |
| 13.3 | Demonstrate the care of potted plants |  |

## Benchmark 14: Business

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 14.1 | Demonstrate appropriate customer relations skills |  |
| 14.2 | Calculate the price for floral designs and corsages |  |
| 14.3 | Calculate prices for different sizes of potted plants |  |
| 14.4 | Create displays for a floral shop |  |
| 14.5 | Understand financial records for floral shop management |  |
| 14.6 | Understand advertising and marketing of floral shop products |  |
| 14.7 | Demonstrate different public relations concepts |  |
| 14.8 | Describe how computers and technology are used in the floral industry |  |
| 14.9 | Complete a mock job application, resume and interview |  |
| 14.10 | Discuss global perspectives on the floral industry |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

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