Floriculture and Greenhouse Management
Kansas Agricultural Education

Hours Completed _____ Competencies Completed ____/108
Verification Signatures:

Student: _____ Date: _____

Instructor: _____ Date: _____

Name: _____

Instructor:_____ _____School Year:_____

Key to Integrated Competencies
(CD)- Career Development
(L)- Leadership
(E) - Experienced Based
(LK) - LifeKnowledge Lessons
(LA) – Language Arts
(M) - Math
(S) – Science
(SS) – Social Science

Circle to indicate level of competency achieved:
3 - Skilled-Works Independently **2** Limited skill-Needs assistance **1** -Skill undeveloped-but received instruction **0** -No

Career Opportunities

3 2 1 0 1. Identifies various careers in floral design and greenhouse management (CD) (LK HS 123)
3 2 1 0 2. Summarizes different educational requirements (LA) (LK HS 125)
3 2 1 0 3. Identify scope of floriculture and greenhouse operations in Kansas, domestically, and nationally (C) (LK HS 31)

Safety

3 2 1 0 1. Identify tools used in floriculture and greenhouses (E, CD)
3 2 1 0 2. Describe and demonstrate proper hand tool safety (LA, E)
3 2 1 0 3. Demonstrate proper use of power tools (E)
3 2 1 0 4. Explain proper pesticide safety procedures (LA)
3 2 1 0 5. Demonstrate safe use of plant growth regulators (E)
3 2 1 0 6. Be aware of electrical hazards and water in the greenhouse (CD, E)

Plant Identification and Classification

3 2 1 0 1. Use scientific plant names correctly (S, LA)
3 2 1 0 2. Describe plants using taxonomic terms (S, LA)
3 2 1 0 3. Identify 20 plants commonly found in a greenhouse or floral shop (cut flowers, bedding flowers, house plants, nursery stock, and bulbs) (CD, LA)

Greenhouse Structures

3 2 1 0 1. Determine location and orientation of greenhouses (S)
3 2 1 0 2. Discuss the difference in greenhouse designs (LA)
3 2 1 0 3. Identify different types of benches (LA)
3 2 1 0 4. 3 Discuss different environmental controls (heating, cooling, air circulation, lighting, and humidity) (S, LA)
3 2 1 0 5. Differentiate between different irrigation and watering systems. (S, LA)
3 2 1 0 6. Calculate operation costs and greenhouse structure costs (M)

Plant Media and Growing Containers

3 2 1 0 1. Prepare and grow plants in a soil-less media (S, E, CD)
3 2 1 0 2. Identify basic types and sizes of containers used in commercial greenhouses (S)
3 2 1 0 3. Explain the components of a soil-less media (S, LA)
3 2 1 0 4. Calculate soil amounts for different pots (M, S)

Greenhouse Cultural Practices

3 2 1 0 1. Identify different light requirements for different greenhouse crops (S, LA)
3 2 1 0 2. Determine different temperature requirements for different greenhouse crops (S, E)
3 2 1 0 3. Describe humidity requirements for different greenhouse crops (S, E)
3 2 1 0 4. Identify factors that promote good air quality in a greenhouse (LA, S)
3 2 1 0 5. Determine the amount of water needed for common greenhouse crops (S, E)

Greenhouse Management

3 2 1 0 1. Propagate plants sexually and asexually (S, E)
3 2 1 0 2. Calculate fertigation requirements (M, S)
3 2 1 0 3. Calculate bench space for different sizes of pots (M, S)
3 2 1 0 4. Regulate pH in soil and water (S, E)

Greenhouse Production

3 2 1 0 1. Learn proper technique for poinsettia, Easter lily, and Chrysanthemum production (S, E, CD)
3 2 1 0 2. Demonstrate bedding plant production methods (E, CD)
3 2 1 0 3. Learn hydroponic methods of plant production (LA, S, E)
3 2 1 0 4. Design or develop a greenhouse planting schedule (LA, S)

Integrated Pest Management

3 2 1 0 1. Identify common pests and diseases in Kansas greenhouses (E, CD)
3 2 1 0 2. Describe control methods, sanitation, chemical formulations, and equipment used to control pests in the greenhouse (LA, S)
3 2 1 0 3. Identify safety guidelines for pesticide use (S)

3 2 1 0 4. Read chemical label and use the chemical properly (S, E, CD)
3 2 1 0 5. Dispose of chemicals according to EPA recommendations (S)

Perform basic principles of floral design

3 2 1 0 1. Identify basic principles of floral arranging and floral design (LA, S)
3 2 1 0 2. Identify basic design shapes (S)
3 2 1 0 3. Identify color relationships (S)

Discuss the necessary mechanics of floral design

3 2 1 0 1. Identify and safely use design tools and supplies (CD, E)
3 2 1 0 2. Construct bows using basic ribbon widths (S, E, CD)
3 2 1 0 3. Select and prepare appropriate containers (S)
3 2 1 0 4. Perform basic wiring and taping techniques (S, CD, E)
3 2 1 0 5. Package flowers and arrangements for delivery (CD, E)

Demonstrate creation of a variety of floral designs

3 2 1 0 1. Identify how floral designs are used (C)
3 2 1 0 2. Construct corsages and boutonnieres (CD, E)
3 2 1 0 3. Construct a bud vase (CD, E)
3 2 1 0 4. Construct a one sided arrangement (CD, E)
3 2 1 0 5. Construct a centerpiece (CD, E)
3 2 1 0 6. Construct an evergreen wreath (CD, E)
3 2 1 0 7. Construct a silk arrangement (CD, E)
3 2 1 0 8. Construct a dried arrangement (CD, E)
3 2 1 0 9. Construct a dish garden (CD, E)

Discuss Post-harvest Handling Procedures

3 2 1 0 1. Describe how plant processes affect shelf life (LA, S)
3 2 1 0 2. Demonstrate techniques for the processing of cut plant materials (S, CD, E)
3 2 1 0 3. Demonstrate the care of potted plants (S, CD, E)

Business

3 2 1 0 1. Demonstrate appropriate customer relations skills (LA,L)
3 2 1 0 2. Calculate the price for floral designs and corsages (M)
3 2 1 0 3. Calculate prices for different sizes of potted plants (M)
3 2 1 0 4. Create displays for a floral shop (CD, E, L)
3 2 1 0 5. Understand financial records for floral shop management (LA, M)
3 2 1 0 6. Understand advertising and marketing of floral shop products (LA, CD,L)
3 2 1 0 7. Demonstrate different public relations concepts (LA, E, CD, L)
3 2 1 0 8. Describe how computers and technology are used in the floral industry (LA)
3 2 1 0 9. Complete a mock job application, resume and interview (LA, CD, E, L)
3 2 1 0 10. Discuss global perspectives on the floral industry (LA)

FFA Opportunities

3 2 1 0 1. Research and present a 6-8 minute speech on an agricultural topic.(LA) (LK HS 86 & 90)
3 2 1 0 2. Complete the National FFA Organization scholarship application.
3 2 1 0 3. Serve on a POA committee.(E) (LK AHS 45)
3 2 1 0 4. Create a FFA recruitment strategy based on specific needs and interests of the target audience. (LK AHS 46)
3 2 1 0 5. Design a plan to recruit and involve key partners in the FFA. (LK AHS 48)
3 2 1 0 6. Participate in at least one activity above the chapter level.
3 2 1 0 7. Assist in the planning of at least one local chapter activity.

SAE

3 2 1 0 1. Maintain records on income and expense.
3 2 1 0 2. Complete a cash flow statement.
3 2 1 0 3. Complete year end records.
3 2 1 0 4. Complete a SAE packet.
3 2 1 0 5. Complete a proficiency award application. (LK AHS 53)

Work Place Skills

Decision Making/Problem Solving

1. Describe the factors that impact on decision making: (LK HS 20)

3 2 1 0 a. Needs and wants (LK HS 95)
3 2 1 0 b. Values (LK HS 10)
3 2 1 0 c. Goals (LK HS 44)
3 2 1 0 d. Standards

3 2 1 0 2. Distinguish between types of decisions: economic and/or technical.
3 2 1 0 3. Apply the steps In interpreting a problem, coming up with a plan and then a result. (LK HS 40)

Resource Management

3 2 1 0 1. Locate information and select the materials, tools, and equipment needed to perform an activity or build a project.(CD)
3 2 1 0 2. Determine cost, time, and resources needed to complete a task within an industry or occupation.(CD)
3 2 1 0 3. Explain the relationship between setting goals and managing money. (CD,LK AHS 9)
3 2 1 0 4. Identify fixed a flexible expenses.
3 2 1 0 5. Identify planned and impulse buying.

Worth Ethics

1. Interpret workplace policies related to: (CD)

3 2 1 0 a. Safety
3 2 1 0 b. Personal hygiene
3 2 1 0 c. Absence and personal leave
3 2 1 0 d. Substance abuse
3 2 1 0 e. Employee theft
3 2 1 0 f. Sexual harassment
3 2 1 0 g. Termination/Legal actions
3 2 1 0 h. Punctuality and dependability
3 2 1 0 i. Responsibility for position
3 2 1 0 j. Accuracy
3 2 1 0 k. Cost effectiveness

2. Understand and value effective work ethic attitudes and behaviors such as: (CD, L)

3 2 1 0 a. Acceptance of the job requirement
3 2 1 0 b. A willingness to take initiative with new challenges
3 2 1 0 c. Take responsibility for decision and actions.

3 2 1 0 1. Compare and complete various examples of job application forms (CD, LA)
3 2 1 0 2. Demonstrate personal characteristics that lead to job satisfaction.
3 2 1 0 3. Maintain an opening to lifelong learning.
3 2 1 0 4. Create a portfolio or resume' or other means that display academic and technical skill and accomplishments. (E, LA, CD)