Ag Plastics
Kansas Agricultural Education

Hours Completed _____ Competencies Completed _____/197
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 exposure

Opportunities in FFA

3 2 1 0 1. Research and present a 4-6 minute speech on an agricultural topic.(L, LA, E) (LK HS 86 & 90)
3 2 1 0 2. Serve on a POA committee. (L, E) (LK AHS 47)
3 2 1 0 3. Participate in at least one activity above the chapter level.(L, E)
3 2 1 0 4. Demonstrate concise, impromptu speaking skills. (LA, L, E) (LK HS 84)
3 2 1 0 5. Conduct strengths assessment to determine possible career options. (L, CD, E) (LK HS 31)

SAE

3 2 1 0 1. Maintain records on income and expense. (M, CD, E) (LK HS 129)
3 2 1 0 2. Complete a cash flow statement. (M, CD, E)
3 2 1 0 3. Complete year end records. (M, CD, E)
3 2 1 0 4. Complete a SAE packet. (M, CD, E)
3 2 1 0 5. Complete a proficiency award application. (M, CD, E) (LK AHS 53)

I. USE TOOLS, EQUIPMENT, MATERIALS, AND FACILITIES

3 2 1 0 1. Demonstrate a knowledge of safety concerning tools, machines, and materials
3 2 1 0 2. Demonstrate a safe use of care of tools, equipment,
materials, and facilities
3 2 1 0 3. Store materials properly

II. DESIGN PROCESS

3 2 1 0 1. Identify design process
3 2 1 0 2. List five qualifications for a good design
3 2 1 0 3. Identify problem
3 2 1 0 4. Contribute to preliminary ideas
3 2 1 0 5. Contribute in a positive way to refinement process
3 2 1 0 6. Contribute in a positive way to analysis of preliminary ideas
3 2 1 0 7. Contribute in a positive way to decision making process
3 2 1 0 8. Demonstrate implementation of design
3 2 1 0 9. Understand and contribute to team presentation of designs

III. FORMING PROCESSES

3 2 1 0 1. Vacuum forming
3 2 1 0 2. Heat forming
3 2 1 0 3. Heat/pressure forming

IV. MOLDING PROCESSES

3 2 1 0 1. Extrusion molding
3 2 1 0 2. Injection molding
3 2 1 0 3. Powder molding

V. TYPES OF MOLDS

VI. ENGINEERING FIELDS AND CONCEPTS

3 2 1 0 1. List the major engineering fields
3 2 1 0 2. Describe why materials are chosen on the basis of their properties
3 2 1 0 3. List properties of materials
3 2 1 0 4. List units of measurement of length, volume, and weight
3 2 1 0 5. List requirements for selecting materials

VII. ESTIMATE MATERIALS

3 2 1 0 1. Calculate materials costs
3 2 1 0 2. Estimate materials waste
3 2 1 0 3. Calculate estimated project costs
3 2 1 0 4. List and describe objectives of design
3 2 1 0 5. Make a working sketch
3 2 1 0 6. Explain how ergonomics affects a design
3 2 1 0 7. Design product to satisfy human needs and wants
3 2 1 0 8. Design products which have sound design characteristics

VIII. TEAM BUILDING & PROBLEM SOLVING

3 2 1 0 1. Recognize the necessity and effectiveness of the team in the workplace
2. Describe the role of the individual in a team:
3 2 1 0 a. Establish team goals and objectives
3 2 1 0 b. Establish team standards
3 2 1 0 c. Receive and give information
3 2 1 0 d. Process information
3. Utilize problem solving skills:
3 2 1 0 a. Define critical issues
3 2 1 0 b. Offer solutions to a problem
3 2 1 0 c. Select a solution to a problem
3 2 1 0 d. Develop an action plan
4. Build group consensus:
3 2 1 0 a. Clarify statements
3 2 1 0 b. Reconcile alternative plans for action
3 2 1 0 c. Propose alternative plans for action

3 2 1 0 d. Maintain task-focused procedures
3 2 1 0 e. Respond positively to ideas and suggestions
3 2 1 0 f. Express agreement and disagreement diplomatically
5. Maintain team effectiveness:
3 2 1 0 a. Establish open communications lines
3 2 1 0 b. Recognize and resolve conflict
3 2 1 0 c. Evaluate the team process
3 2 1 0 d. Demonstrate the ability to work in a team environment

II. ORAL COMMUNICATION
3 2 1 0 1. Organize notes and ideas for presentations.
3 2 1 0 2. Prepare and deliver a presentation appropriate to subject matter, purpose, and audience.
3 2 1 0 3. Participate in group communication activities.
3 2 1 0 4. Give oral directions.

III. MATHEMATICS
3 2 1 0 1. Estimate, apply, and solve problems involving fractions, decimals, percentages, and real numbers.
3 2 1 0 2. Decide whether a problem situation is best solved using computer, calculator, paper and pencil, or mental arithmetic/estimation techniques.
3 2 1 0 3. Translate written and/or verbal statements into mathematical expressions.
3 2 1 0 4. Convert common units of measurement within and/or across measurement systems (metric/English, etc.).
3 2 1 0 5. Interpret tables, charts, maps, and/or graphs.
3 2 1 0 6. Apply measurement concepts of distance, direction, & rate

IV. WRITING
3 2 1 0 1. Use language, organization, and format appropriate to the subject matter, purpose, and audience.
3 2 1 0 2. Check, edit, and revise for correct information, appropriate emphasis, grammar, spelling, and punctuation.
3 2 1 0 3. Compile and maintain records, logs, lab notebooks, and other documents.

V. COMPUTER LITERACY
3 2 1 0 1. Define, understand, and use common computer technology terminology
3 2 1 0 2. Compose, organize, and edit information using a computer.
3 2 1 0 3. Use functions to store, retrieve, and sort data.
3 2 1 0 4. Select and use subject-specific and industry-specific software.
3 2 1 0 5. Access, navigate, and use on-line services
3 2 1 0 6. Apply ethical considerations to the operation and management of information systems c

VI. HUMAN RELATION SKILLS
1. Perform a self-assessment:
3 2 1 0 a. Personal goals
3 2 1 0 b. Standards and values
3 2 1 0 c. Needs/wants
3 2 1 0 d. Strengths/weaknesses
3 2 1 0 e. Interests/talents
3 2 1 0 2. Define the term “self concept”.
3 2 1 0 3. Demonstrate characteristics of a positive self concept.
3 2 1 0 4. Identify defense mechanisms that are used to protect self concept.
5. Demonstrate interpersonal skills:
3 2 1 0 a. Tact and diplomacy
3 2 1 0 b. Respect for others
3 2 1 0 c. Respect for diversity
3 2 1 0 d. Recognition of others’ strengths
3 2 1 0 e. Positive assertiveness
3 2 1 0 f. Positive attitude

VII. DECISION MAKING/PROBLEM SOLVING
1. Describe the factors that impact on decision making:
3 2 1 0 a. Needs and wants
3 2 1 0 b. Values
3 2 1 0 c. Goals
3 2 1 0 d. Standards
2. Distinguish between types of decisions:
3 2 1 0 a. Economic
3 2 1 0 b. Technical
3 2 1 0 c. Social
3 2 1 0 3. Apply the steps in the decision making process.
4. Utilize problem solving skills:
3 2 1 0 a. Identify the problem for resolution
3 2 1 0 b. Define critical issues
3 2 1 0 c. Analyze causes of a problem
3 2 1 0 d. Utilize research and assessment skills
3 2 1 0 e. Examine results of a problem
3 2 1 0 f. Offer solutions to a problem
3 2 1 0 g. Select a solution to a problem
3 2 1 0 h. Implement an action plan

VIII. TEAMWORK
1. Participate in team tasks:
3 2 1 0 a. Establish team goals
3 2 1 0 b. Establish team standards
3 2 1 0 c. Receive and give information
3 2 1 0 d. Process information
3 2 1 0 e. Plan for action
3 2 1 0 f. Complete team task on time
2. Build group consensus:
3 2 1 0 a. Clarify statements
3 2 1 0 b. Reconcile disputes and disagreements
3 2 1 0 c. Propose alternative plans for action
3 2 1 0 d. Respond positively to ideas and suggestions
3 2 1 0 e. Express agreement or neutrality
3 2 1 0 f. Demonstrate conflict resolution skills
3 2 1 0 g. Express disagreement diplomatically

IX. RESOURCE MANAGEMENT
3 2 1 0 1. Identify and explain the use of common supplies for a given occupational area.
3 2 1 0 2. Locate information and select the materials, tools, equipment, or other resources to perform the activities needed to
accomplish a specific task.
3 2 1 0 3. Determine cost, time, and resources needed to complete a task within an industry or occupation.
3 2 1 0 4. Explain the relationship between setting goals and managing money.
3 2 1 0 5. Identify fixed and flexible expenses.

X. TIME MANAGEMENT
3 2 1 0 1. Identify influences on use of time.
3 2 1 0 2. Set priorities or the order in which several tasks will be accomplished.
3 2 1 0 3. Identify and eliminate “time traps”.
3 2 1 0 4. Identify and control personal “time wasters”.
3 2 1 0 5. Develop strategies to overcome procrastination and meet deadlines.
3 2 1 0 6. Estimate the time required to perform activities needed to accomplish a specific task.
3 2 1 0 7. Create a time plan for solving a problem.
3 2 1 0 8. Develop a daily time plan for work
3 2 1 0 9. Utilize time management strategies

3 2 1 0 10. Demonstrate stress management skills.

XI. WORK ETHICS

1. Understand workplace policies related to:
3 2 1 0 a. Safety
3 2 1 0 b. Personal hygiene
3 2 1 0 c. Personal discipline (personal leave and absence)
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. Causes for termination/legal actions
2. Apply employee rules, regulations, and policies in a given occupational area, including:
3 2 1 0 a. Punctuality and dependability
3 2 1 0 b. Responsibility for position
3 2 1 0 c. Accuracy
3 2 1 0 d. Cost effectiveness
3. Understand and value effective work ethic attitudes and behaviors such as:
3 2 1 0 a. Acceptance of the job requirements.
3 2 1 0 b. A willingness to take initiative with new challenges.
3 2 1 0 c. Take responsibility for decisions and actions.
3 2 1 0 4. Demonstrate personal characteristics that lead to job satisfaction.
3 2 1 0 5. Maintain openness to lifelong learning.
3 2 1 0 6. Create a portfolio or other means that display academic and technical skills.

XII. CAREER PLANNING

3 2 1 0 1. Access and use information to develop educational and career options.
3 2 1 0 2. Prepare a personal budget.
3 2 1 0 3. Develop a financial expectation.
3 2 1 0 4. Participate in career exploration activities.
3 2 1 0 5. Apply self-assessment skills to the career decision-making process.
3 2 1 0 6. Recognize potential impact of career choice on family and personal life.