

Agricultural Mechanics

EXAM INFORMATION	DESCRIPTION												
<p>Exam Number</p> <p>115</p> <p>Items</p> <p>23</p> <p>Points</p> <p>31</p> <p>Prerequisites</p> <p>AGRICULTURAL SYSTEMS TECHNOLOGY I</p> <p>AGRICULTURAL SYSTEMS TECHNOLOGY II</p> <p>Recommended Course Length</p> <p>ONE YEAR</p> <p>National Career Cluster</p> <p>AGRICULTURE, FOOD & NATURAL RESOURCES</p> <p>Performance Standards</p> <p>INCLUDED (OPTIONAL)</p> <p>Certificate Available</p> <p>YES</p>	<p>This capstone course is designed to acquaint students with the basic core knowledge and skills needed for a career in fabrication with most materials. The instructor can choose the material based on instructor preference/skill level, community need, or student need. The course is designed to be 25% skill development and 75% fabrication. Because of the rigorous nature of this hands-on course it is recommended that enrollment not exceed 15 students.</p> <p>EXAM BLUEPRINT</p> <table border="1"> <thead> <tr> <th>STANDARD</th> <th>PERCENTAGE OF EXAM</th> </tr> </thead> <tbody> <tr> <td>1. Personal and Leadership Development</td> <td>23%</td> </tr> <tr> <td>2. Supervised Agricultural Experience (SAE)</td> <td>10%</td> </tr> <tr> <td>3. Safety</td> <td>16%</td> </tr> <tr> <td>4. Project Design</td> <td>35%</td> </tr> <tr> <td>5. Fabricate Projects</td> <td>16%</td> </tr> </tbody> </table>	STANDARD	PERCENTAGE OF EXAM	1. Personal and Leadership Development	23%	2. Supervised Agricultural Experience (SAE)	10%	3. Safety	16%	4. Project Design	35%	5. Fabricate Projects	16%
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STANDARD 1

Students will understand the importance of workplace skills and will implement and practice these skills in the classroom, laboratory, and work-based experiences

- Objective 1** Use communication skills to effectively interact with others.
1. Understand when it is appropriate to listen and to speak.
 2. Understand and follow verbal and written instructions for classroom and laboratory activities.
 3. Reflect on assigned work and then communicate progress relative to completion.
- Objective 2** Effectively use teamwork to respectfully work with other individuals.
1. Work with a team to complete assignments and projects.
- Objective 3** Use the critical thinking and problem-solving skills; reason, analyze, reflect, evaluate, and interpret information to make judgements and decisions to solve problems.
1. Use generally accepted industry standards to analyze and evaluate the properties of a fabrication project, interpret the findings, and make decisions about improving the process or procedure to improve the quality of the project.
- Objective 4** Be dependable, reliable, steady, trustworthy, and consistent in performance and behavior.
1. Set and meet goals on attendance and punctuality.
 2. Prioritize, plan, and manage work to complete assignments and projects on time.
- Objective 5** Be accountable for results.
1. Assure work quality by using industry standards for process, procedure and evaluation.
 2. File a weekly/bi-weekly written report on progress toward completion of assignments and projects.
- Objective 6** Be familiar with the legal requirements and expectations of the course.
1. Be familiar with the course disclosure statement and all requirements for successful completion of the course.
 2. Demonstrate workplace ethics.
- Objective 7** Demonstrate employment skills.
1. Build a job search network and find job leads.
 2. Write a resume and create a job portfolio.

3. Write a letter of application.
4. Complete a job application.
5. Participate in an actual or simulated job interview.

Standard 1 Performance Evaluation included below (Optional)

STANDARD 2

Students will participate in a supervised agricultural experience (SAE)

- Objective 1** Students will participate in an entrepreneurial, paid employment, research, or exploratory focused work-based experience outside the classroom.
- Objective 2** Students are required to keep a personal record/journal/log of their work-based experience.

Standard 2 Performance Evaluation included below (Optional)

STANDARD 3

Students will work to create a culture of safety

- Objective 1** Complete a student safety pledge (disclosure statement).
- Objective 2** Respond to first aid requirements as allowed by school policy.
1. Locate first-aid kits and investigate their contents and discuss the use of the items as allowed by school policy.
 2. Discuss appropriate safety responses in an accident or emergency.
 3. Demonstrate the use of simple first aid in an accident with an injury.
- Objective 3** Follow safe practices.
1. Use appropriate PPE (Personal Protective Equipment) at all times.
 2. Eliminate workplace practices that distract attention and create an unsafe environment, e.g. cell phones and other electronic devices.
- Objective 4** Perform housekeeping duties.
1. Keep personal workspace clean and work with others to clean and organize community space.
- Objective 5** Successfully complete safety tests or demonstrations on equipment use and equipment safety.

1. Students will demonstrate an understanding of safe practices with 100% accuracy.

Standard 3 Performance Evaluation included below (Optional)

STANDARD 4

Students will design a fabrication project

- Objective 1** Select a project with blueprints for fabrication.
1. Analyze the project to make sure that it is cost effective to build the project.
- Objective 2** Interpret welding and construction symbols/information.
- Objective 3** Develop a project portfolio.
1. Drawing
 2. Bill of materials
 3. Cut list
 4. Cost estimates
- Objective 4** Prepare a materials order and secure the materials.
- Objective 5** Develop a production schedule.

Standard 4 Performance Evaluation included below (Optional)

STANDARD 5

Students will fabricate projects

- Objective 1** Demonstrate proper equipment setup and usage.
- Objective 2** Accurately measure and prepare materials for fabrication.
- Objective 3** Construct the project according to a plan that meets high quality standards in four areas, including project design, quality of workmanship, attention to detail, and fit and finish.

Standard 5 Performance Evaluation included below (Optional)

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Performance assessments may be completed and evaluated at any time during the course. The following performance skills are to be used in connection with the associated standards and exam. To pass the performance standard the student must attain a performance standard average of 8 or higher on the rating scale. Students may be encouraged to repeat the objectives until they average 8 or higher.

Student's Name: _____

Class: _____

PERFORMANCE STANDARDS RATING SCALE



STANDARD 1 - Personal and Leadership Development

Score:

- Set and meet goals on attendance and punctuality.
- File a weekly/bi-weekly written report on progress toward completion of assignments and projects.
- Write a resume and create a job portfolio.

STANDARD 2 - Supervised Agricultural Experience (SAE)

Score:

- Keep a personal record/journal/log of their work-based experience.

STANDARD - 3 Safety

Score:

- Use appropriate PPE (Personal Protective Equipment) at all times.
- Keep personal workspace clean and work with others to clean and organize community space.
- Demonstrate an understanding of safe practices with 100% accuracy.

STANDARD 4 - Project Design

Score:

- Develop a project portfolio.

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- Develop a production schedule.

STANDARD 5 - Fabricate Projects

Score:

- Construct a project.

PERFORMANCE STANDARD AVERAGE SCORE:

Evaluator Name: _____

Evaluator Title: _____

Evaluator Signature: _____

Date: _____