

Dallas High School

Home of the Dragons



Agricultural Fabrication and Repair 2022-2023

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Office Hours: 3:30 to 4:00

Course Description:

This course is designed for those students interested in a career in engineering and design, machine maintenance, and welding and fabrications. The course will focus on the areas of welding and metal working as well as project design. Students will utilize standard safe practices while using machinery and tools to create, refurbish, or design various projects.

Standards to Be Assessed:

Upon successful completion of the course, students should be able to:

1. AG 02.01 - Use oral and written communication skills in creating, expressing and interpreting agricultural information and ideas including technical terminology.
2. AG 03.01 - Solve agriculture problems using critical thinking skills (e.g., analyze, synthesize and evaluate, independently and in teams).
3. AG 06.02 - Identify health goals, emergency procedures for safety and first-aid for agricultural workplaces and occupations
4. AG 06.03 - Understand appropriate health and safety emergency procedures for agricultural occupations.
5. AG 10.02 - Use tools, equipment, machinery and technology to work in areas related to agriculture.
6. PST 01. - Use physical science principles and engineering applications

7. PST 02. - Plan, operate, maintain and troubleshoot mechanical equipment, structures, biological systems, land treatment, power and technology.
8. PST 03. - Service and repair mechanical equipment and power systems.
9. PST 04. - Plan, build and maintain agricultural structures.
10. PST 05. - Apply technology principles in the use of agricultural technical systems.

Course Outline

| | Unit Topic | Summative Assessment | Standards |
|--------|---|---|--|
| Unit 1 | Safety – Shop, tool, equipment | A safety portfolio to include safety exams for each piece of equipment and written proof of safe operational demonstration. | AG 02.01 Use oral and written communication skills AG 06.03 - Understand appropriate health and safety emergency procedures AG 06.02 - Identify health goals, emergency procedures for safety and first-aid |
| Unit 2 | Welding SMAW, GMAW, OA (ARC, MIG, and oxyacetylene welding) | Practicum - welds | PST 04. - Plan, build and maintain agricultural structures |
| Unit 3 | Oxyacetylene and plasma torch cutting | Practicum Provide evidence of proficiency | AG 10.02 - Use tools, equipment, machinery and technology PST 01. - Use physical science principles and engineering applications |
| Unit 4 | Project design | Practicum and unit exam Provided detailed plans for and construct a project | PST 04. - Plan, build and maintain agricultural structures PST 01. - Use physical science principles and engineering applications with power, structural and technical systems to solve problems and improve performance. |
| Unit 5 | Fabrication and restoration techniques | Practicum and demonstration of proficiency | PST 02. - Plan, operate, maintain and troubleshoot mechanical equipment, structures, biological systems, land treatment, power and technology. |

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|--------|-----------------------|-------------------------|--|
| | | | PST 03. - Service and repair mechanical equipment and power systems. |
| Unit 6 | Coatings and finishes | Practicum and unit exam | PST 04. - Plan, build and maintain agricultural structures. |

Grading and Assessment:

The following grading scales will be used to calculate a student’s course grades and grade point average:

| Course Grades will be calculated using the following scale: | Grade Point Averages (GPAs) will be calculated using the following scale: | GPAs for Advanced Placement courses will be calculated using the following scale: |
|--|--|--|
| A 90-100% | A (4.0) | A (5.0) |
| B 80-89% | B (3.0) | B (4.0) |
| C 70-79% | C (2.0) | C (3.0) |
| D 60-69% | D (1.0) | D (2.0) |
| F 0-59% | F (0) | F (0) |

Academic Integrity

The faculty and administration of Dallas High School believe that honesty and integrity are personal attributes worth nurturing in our students. Because we value the educational and skill development opportunities provided by classroom assignments, research projects, tests, and credit recovery, we expect students to express academic integrity by doing their own work and properly documenting information gathered from other sources. Congruous with this belief is our resolve to handle those who violate the principles of academic integrity with stringent consequences as outlined in the K-12 Code of Conduct.

Student Behavior and Expectations:

Students are expected to demonstrate appropriate behavior in the classroom and contribute to a safe, positive, caring learning environment by cooperating; doing their best to achieve academic excellence; respecting themselves, others, and the environment; and conducting themselves in a safe manner at all times. Clearly defined behavioral expectations are consistent school-wide through the Dragon **PRIDE** acronym. We strive to teach our students to take **PRIDE** in themselves and the school by demonstrating: **Purpose, Respect, Integrity, Determination, and Empathy** at all times. For more information, please see the [Student/Parent Handbook](#).

Student Electronic Devices at Dallas High School:

Students are allowed to possess personal electronic devices at school and at school-sponsored activities provided such devices are not used in any manner that may disrupt the learning environment, school-sponsored activities or violate Board policies, administrative regulations, school or classroom rules, or state and federal laws. Cell phone usage is **only** permitted during scheduled passing periods and lunch times. Students are not allowed to be on their phones in the hallways and other common areas during class time and cell phone usage in the bathrooms and locker rooms is prohibited **at all times**. Students must use a Chromebook or laptop to complete and submit coursework. Cell phones cannot be used for this purpose and can only be used during class time with express advance permission from the teacher.

Diversity

Dallas School District #2 recognizes the diversity and worth of all individuals and groups and their roles in society. It is the policy for the Dallas School District #2 Board of Education that there will be no discrimination or harassment of individuals or groups on the grounds of age, color, creed, disability, marital status, national origin, race, religion, sex or sexual orientation in any educational programs, activities or employment.

Gender

Dallas High School will be proactive in creating a school culture that respects and values all students and fosters understanding of gender identity within the school community. Such guidelines are intended to ensure a safe learning environment free of discrimination and harassment, and to promote the educational and social integration of transgender students. They do not anticipate every situation that may occur and the needs of each student will be assessed on a case-by-case basis.

DHS SHOP USER SAFETY AGREEMENT

I, _____ (printed name) the undersigned, a student in the Dallas High School Career and Technical Education Center, agree to follow all safety rules and procedures and agree to the statements below. I will:

- Successfully complete the Safety Orientation Unit.
- Have shop policies and procedures explained to me.
- Received demonstrations on all the major machines.
- Be instructed to ask for help on any machine with which I am not familiar.
- refrain from using any machine without such instruction.
- Receive a pair of safety glasses.
- Be responsible for wearing eye protection at all times in the shop facilities.

I understand that there are certain risks associated with the use of this equipment and if I have any questions or think that a piece of equipment is not functioning properly, I will ask the person in charge.

Additionally, I know that I must:

- dress appropriately for the shop and lab areas. (closed toed shoes, eye protection, etc.)
- Follow school policy regarding any and all other regulations to include: use of tobacco, foul language, etc.

Student Signature:

_____ Date: _____

Parent or Guardian

Name (Print) _____ Signature _____

Below please indicate the best method of contact as well as the best time to contact. (email, phone, etc.)

With the passage of senate bill 2444 all students enrolled in agricultural education course at Dallas High School will have paid membership in the National FFA Organization. Students have access to and are encouraged to participate at the level with which they feel comfortable. The FFA is a youth leadership organization that is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. If you have any questions please ask.