



AG 120 – Agricultural Engineering & Fabrication I

Mrs. Dorsey

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Google Classroom:

Course Description - Students in this course will learn mig welding, arc welding, oxy-fuel cutting, plasma arc cutting, equipment operation, plumbing, cold metal, hot metal, and project construction skills. Students will learn to read working drawings and complete project plans. FFA activities and agricultural mechanics are emphasized. A Supervised Occupational Experience is required. The purchase of project materials 2nd semester is the responsibility of the student/parent/guardian.

STANDARD 1.0 EXAMINE THE NATURE, SCOPE, AND ROLE OF AGRICULTURE IN THE SOCIETY AND THE ECONOMY

1.1 Investigate the impact of the agricultural industry on population, food, energy, and environment

1.6 Investigate how the agriculture sector provides employment opportunities to the labor force

STANDARD 2.0 EXAMINE THE IMPACT OF TRENDS, TECHNOLOGIES, AND POLICIES ON AGRICULTURE

2.1 Identify the major milestones and technological advancements on agriculture and the impact to society (e.g., advances in mechanization)

2.9 Describe the effect of agriculture on the web cycle

STANDARD 14.0 DEMONSTRATE OPERATION OF TOOLS, EQUIPMENT, AND INSTRUMENTS

14.1 Demonstrate safe operating instructions and procedures as recommended by the manufacturer

14.2 Utilize service manuals to perform preventative maintenance and determine scheduled service on tools, equipment, and instruments, including small engines

14.3 *Identify, safely use, and Maintain* hand tools and power equipment (i.e., hand saws, power saws, welders, leaf blowers, etc.)

14.4 Demonstrate a variety of metal fabrication, welding, soldering, cutting, and finishing processes (i.e., SMAW, GMAW, GTAW, fuel-oxygen, plasma arc torch, etc.)

14.7 Utilize manufacturers' guidelines to diagnose, troubleshoot, and repair machinery, equipment, and power

source systems

Extra:

Construct a project using metal fabrication skills – draft a plan, calculate the materials needed, calculate the cost, plan the steps.

Grading - Students will earn points by written assignments, quizzes, tests, projects and hands on activities in the laboratory. Approximate point values are as follows:

Assignment	Percentage of Total Grade	Description
Laboratory work/Laboratory Projects	40%	A large portion of the grade is based on laboratory activities and projects. Proper preparation, punctuality, and participation will greatly affect the laboratory points.
Written assignments, quizzes, tests, article summaries, career reports	20%	Any assignment assigned within the class that is not within the class. Tests and quizzes will be given periodically



		covering content students are expected to know and understand.
Quarterly leadership	10%	The objective of the assignment is to encourage students to better themselves through active participation in extracurricular activities.
Supervised Agricultural Experience	10%	Students are required to conduct a Supervised Agricultural Experience (SAE). This is a work, research, or entrepreneurial project in agriculture. Students will keep records and be graded on completion and number of hours involved in the project each semester.
Employability	8%	Employability points include: being on time, attitude, attendance, being prepared for class, participating in class discussion, working with classmates, and clean up.
Interactive Notebook	12%	Students are required to maintain an interactive notebook to keep notes and store assignments. Notebook checks will be performed periodically.

Course Procedures - Performance objectives for this course can only be completed by student participation in planned activities. Student grades will be based upon the completion of assignments given both in class and in the laboratory. Students are expected to dress appropriately for activities planned and work conducted. Safety procedures will be emphasized at all times. Students **cannot** make-up work when they do not dress out or choose not to work that day. Students that choose to not work in a safe manner will be removed from the work area and given written assignments due that day. Students that are not dressed properly and/or show up late will lose daily points that cannot be made up. If a student falls behind in their skill development, work outside of class time will be necessary to get caught up and earn the appropriate grade. A locker and lock is provided for students to store their personal work clothes.

Students will not receive credit for partial work. The final project must be completed, safe, paid for and taken home before a grade will be issued on the project.

Policies:

School policies for late assignments will be implemented. Incomplete assignments are not accepted.

- **Absences:** There are two types of absences: **excused and unexcused**. Excused absences will carry the same weight in implementing the policy. An **excused absence** only means that a student has the right to receive credit for make-up work.
 - o **Excused Absences** (May be one of the following):
 - **School related:** If a student misses a class for a school activity (i.e. field trip, counselor, etc.) he/she is not reported absent to the office, but is responsible for making up all missed work.
 - **Other excused absences:** An excused absence is one in which the parent has notified the school within 24 hours of the student’s absence and the school administrator has approved the absence. When a parent knows that the student will be absent for more than one day, one phone call to the school will be sufficient.
 - o **Unexcused Absences:** An absence is considered unexcused if the school has not been notified within 24 hours of the student’s absence. ***Any student who has 10 consecutive unexcused absences from school may be withdrawn.***



- **Tardiness:** Any student entering the classroom AFTER the bell has rung, and who does NOT have a written excuse from a staff member or the administration, will be considered tardy. If a student arrives after 10 minutes, it will be recorded as an absence. A tardy may result in 9th hour (junior high only), parent conference or any other consequence deemed necessary by the administration.
- **Late work:** Assignment point value will be reduced 10% a day it is not turned in to the teacher. In order for a student to receive the opportunity for an extra credit assignment, the original assignment must be completed and turned in to the teacher in person.
- **Make up:** for missed lab days (Work Points): Come at lunch or after school to make up the work time.

Class Supply List

- A 3-ring binder (available in class \$0.75 or bring your own)- to be kept in the classroom
- 1- clear tape
- 3- different colored highlighters
- 1- non-pointed pair of scissors (yes the little kid scissors are best)
- 1- 12 pack of multi-colored post-it type notes 3"x3"

See Also – Ag Engineering Course Requirements document

