

# Agricultural Mechanics 1

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**Teacher:** Ms. Robyn Bechtel  
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**Meeting Time:** Period 1

## **Course Description**

In Agricultural Mechanics 1, we will study a variety of topics within agricultural mechanics. The following are just some of the topics to be covered within the next year:

1. Shop Safety
  - Safe use of power tools, fire extinguisher and shut off switch locations, eye wash stations, safety features of the shop, demonstrations of the proper use of equipment.
2. Shop Organization and Clean-Up
  - Layout of the shop, proper clean-up techniques, disposal of common chemicals.
3. Measuring
  - Proper use of common measuring devices. Using fractions and decimals. Properly manipulating shop equipment according to measurements.
4. Electricity
  - Generation of electricity and basic home wiring rules and practices.
5. Woodworking
  - Tool box, small projects and Adirondack chair construction. Wood identification
6. Finishing
  - Preparing wood for finish, sanding, steel wool and finish applications.
7. Tool Identification
  - Identification of various common, traditional and non-traditional tools found in an agricultural shop.
8. Plumbing
  - Importance of potable water and different materials used in interior plumbing.
9. Welding
  - Arc welding, striking an arc, Ohm's Law, metal fabrication, Oxy/Act use, welding techniques, safety, MIG welding.

## **Course Materials**

3 ring binder for storing handouts – **CAN** be stored in classroom  
Pen and/or Pencil  
Calculator (Occasionally)  
Notebook paper for note-taking  
When working on shop projects - Appropriate clothing  
Closed toed shoes – ABSOLUTELY NO FLIP FLOPS  
Long pants ( jeans)  
Old cotton shirt to wear in the shop – especially when painting

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## Safety in the Lab

At times, this course will be working in the shop and lab areas. Safety is critical in the lab setting. Students must follow all shop and lab procedures outlined by the instructor. Common sense is also essential when dealing with machines, tools, etc. As a safety rule, NO FOOD OR DRINK SHOULD BE CONSUMED IN CLASS (except for specific, designated food labs!!!!)

PRACTICE SAFE WORK HABITS AT ALL TIMES. FAILURE TO DO SO WILL RESULT IN EXPULSION FROM THIS CLASS. ALL ACCIDENTS, NO MATTER THE SEVERITY, SHOULD BE REPORTED TO THE INSTRUCTOR.

**Safety glasses ARE NOT provided by the Agriculture Department. Students need to bring one pair of Z87 safety glasses to use when working in the Ag Mechanics Lab. You will be given notice as to the date when glasses are needed. Students will be REQUIRED to wear safety glasses at all times while in the Ag Mechanics Lab area!! If a student is seen by ANY teacher or adult not wearing safety glasses, he or she will receive one warning for the day. If seen twice in one day, the student will be asked to leave the lab area. If the student is caught more than once in a week, detention will be assigned with the Ag Department OR through the high school office. Repeat offenders may be asked to leave the course.**

## Skill Journal

Each student enrolled in a Williamsburg Agriculture course needs to keep a skill journal with entries of skills or principles learned and or completed. This is a requirement of the course. **If the student does not fulfill the requirement, grades will be affected.** Skill Journals are supplied by the Ag Department and time is given in class to complete them and are collected and checked the last Friday of every month.

## Grading

Grades are based on the total points received divided by the total maximum points for the marking period. The final grade will be based on all information covered during the course of the class. **ALL** missed work must be made up or a grade of zero is awarded. After returning from an absence, it is YOUR RESPONSIBILITY to CHECK for any work missed, ask a student for additional notes and then check with Ms. Bechtel for additional information.

Students will receive a daily grade for participation / safety / attitude.

Coursework will be divided APPROXIMATELY as follows:

5%	Skill Journal
25%	Tests/Quizzes/Homework
50%	Project/Lab work
20%	Class Participation/Safety/Attitude

The Williamsburg Jr./Sr. High School utilizes the following grading scale:

93 – 100%	A
85 – 92%	B
77 – 84%	C
70 – 76%	D
69% and below	F

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## FFA/SAE

**FFA** and **SAE** are two very integral components of the complete agricultural education program. The National FFA Organization is **the premier youth leadership organization in the US**. Members learn and practice many leadership skills. FFA is a part of the Agriculture Curriculum; **all classes have FFA components**. You will receive more information during class.

**SAE (Supervised Agricultural Experience)** is another extremely important part of agricultural education. This is a project done outside of school and is a place to apply what you learn in the classroom. **Records must be kept on your project**. You will receive more information in class

## Classroom Expectations

Classroom order and discipline are an important part of this course, as well as other courses you are taking. In addition to expecting "normal" acceptable behavior, I expect you to demonstrate **ABOVE AVERAGE** behavior due to safety concerns and the fact that you will be in the "public eye" many times (fieldtrips, contests, etc.)

As a member of an agricultural science course, your actions and appearance must be in line with industry standards in order for you to participate fully in class. **Unsafe or unacceptable behavior and/or appearance (shirt / pants) will NOT be tolerated.**

As a member of an agricultural science course, you are expected to:

1. Respect others, property and yourself
2. Exhibit ABOVE AVERAGE behavior
3. Complete ALL assignments and tasks
4. Actively participate in class and activities
5. Arrive to class on time
6. Share ideas and thoughts one person at a time
7. Keep hands, and feet to yourself
8. Clean-up materials, supplies, etc. everyday
9. Remain in seat during instruction
10. Store backpacks and extra sweatshirts on chairs or under tables
11. Ask permission before leaving the room
12. Submit assignments in course box at the back of the room

Failure to follow procedure will result in disciplinary actions according to the student handbook.