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## Agriculture Mechanics I II III

Teacher: Mr. Boyes

Classroom: AG Shop

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Semester: Fall 2025







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### Welcome to the Ag Mechanics Shop!

This course is all about the hands-on skills needed to keep a farm or ranch running. You'll become a jack-of-all-trades, learning how to troubleshoot, repair, and build a wide variety of systems and equipment. From tearing down a small engine to welding a gate, you'll gain practical, real-world knowledge that you can use for the rest of your life.

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### Key Learning Areas

-  **Comprehensive Safety:** Learn and apply safety standards across multiple disciplines, including tool use, electrical work, and equipment operation.
  -  **Small Engine Systems:** Diagnose, troubleshoot, and repair two-stroke and four-stroke engines on equipment like mowers, trimmers, and pumps.
  -  **Welding & Cutting:** Gain foundational skills in SMAW (Stick) welding, oxy-acetylene cutting, and basic metal fabrication.
  -  **Electrical Wiring:** Understand basic electrical theory and safely wire circuits, outlets, and switches according to code.
  -  **Plumbing & Irrigation:** Learn to work with PVC and copper pipe to design, install, and repair basic plumbing and irrigation systems.
  -  **Concrete & Masonry:** Gain experience planning, forming, pouring, and finishing concrete for small pads and posts.
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<b>Our Shop Rules &amp; Expectations</b>	<b>Grading Breakdown</b>
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1. <b>Safety First, Always.</b> The correct <b>Personal Protective Equipment (PPE)</b> must be worn for every task. At a minimum, <b>safety glasses</b> and <b>closed-toed shoes/boots</b> are required in the shop at all times.	<b>Shop Labs &amp; Projects (50%)</b>   The quality, craftsmanship, and completion of your hands-on work.
2. <b>Use the Right Tool for the Job.</b> Use tools only after you have been properly trained. Always report any broken or malfunctioning tools and equipment immediately.	<b>Safety &amp; Daily Participation (30%)</b>   Based on your daily safety habits, positive attitude, and focus in the shop.
3. <b>Focus on the Task at Hand.</b> This shop contains electrical, mechanical, and chemical hazards. Your full attention is required to ensure a safe environment for everyone.	<b>FFA / Supervised Agricultural Experience (SAE) (10%)</b>   Participation in FFA activities and/or completion of your SAE project.
4.  <b>Phone-Free Zone.</b> Upon entering the class, you will place your cell phone in the designated locked container. It will be returned at the end of the period.	<b>Knowledge Checks &amp; Quizzes (10%)</b>   Written tests on safety procedures and technical concepts.
5. <b>Clean Up is a Team Sport.</b> We all work together to clean our work areas, put away tools, and organize the shop during the last 10 minutes of class.	
6. <b>Meet Your Deadlines.</b> Late work will be accepted for reduced credit (10% deduction per day late) up to one week past the due date.	

<b>Required Materials</b>	<b>Stay Connected!</b>
* <b>ANSI Z87-rated Safety Glasses</b>  * <b>Leather, Closed-Toed Boots</b> (recommended) * <b>Pencil &amp;</b>	Scan the code for links to our FFA Chapter and other class resources.      (You can paste your generated QR code

**Notebook<br>\* A Problem-Solving  
Attitude!**

*image here)*