Principles of Agricultural Mechanics

Principles of Agricultural Mechanics is an intermediate course introducing students to basic skill and knowledge in construction and land management for both urban and rural development. This course covers topics including project management, basic engine and motor mechanics, land surveying, irrigation and drainage, agriculture structures, and basic metalworking techniques. Upon completion of this course, proficient students will be prepared for more advanced coursework in agricultural mechanics. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical subjects, Tennessee State Standards for Mathematics, and National Agriculture, Food, and Natural Resources Career Cluster Content Standards.

Goals and Objectives

* Develop good habits, attitudes, judgments, and the ability to get along with others in a work environment.
* Create a desire for good workmanship, attention to detail, and job completion.
* By good example, stimulate the student to keep an orderly shop.
* Give students confidence in their abilities and skills in working with different tools.
* Create a desire in students to seek additional skills and knowledge in a given area of interest.

Course Outline

|  |  |
| --- | --- |
| Topic/Subject | Time |
| Shop Safety | 1 week |
| Shop/Tool Orientation | 1 week |
| Wood Construction | 2 weeks |
| Metal Working | 2.5 weeks |
| Electricity | 1 week |
| Brick/Masonry | 3 days |
| Surveying/ Land Measuring | 1 week |
| Small Engine  | 1 week |
| Plumbing | 1 week |
| Skills Rotation | 1.5 weeks |
| Capstone Project | 2 weeks |

Grading Procedure:

* Participation/Job Sheets – 40%
* Test and Projects – 35%
* Shop Notebook/Journal – 25%

Required Material:

* 3-Ring Binder / Shop Notebook
* Paper and writing utensils
* Proper/Safe clothing for Shop
* Z87 Safety Glasses

Things to remember:

* FFA membership - $20
* You can earn extra-credit points on a situational bases
* Safety Violations can cost you shop privileges
* Don’t be scared to ask
* Learn, have fun, and do what’s right