

**MURRAY STATE UNIVERSITY
COURSE SYLLABUS OUTLINE**

DEPARTMENT: AGRICULTURE (AGRICULTURE EDUCATION)

COURSE NUMBER: AED 687

CREDIT HOURS: 3

I. TITLE:

Teaching Agricultural Mechanics

II. CATALOG DESCRIPTION:

Role of agricultural mechanics in the vocational agriculture curriculum. Course building, selecting, procuring, developing and using instructional aids in teaching agricultural mechanics with emphasis on demonstrating use of such materials. Building equipment needs.

III. PURPOSE:

To develop teacher competency in planning, conducting, and evaluating an instructional program in Agricultural Mechanics.

**IV. COURSE OBJECTIVES: Experienced Teacher Standards 1-10.
Vocational Teacher Education Standards 1-7.**

Students will--

1. Determine the meaning and importance of agricultural mechanics.
2. Develop an understanding of the inter-relationship of agricultural mechanics to the supervised occupational experience programs of Agribusiness students.
3. Learn the need for safety precautions and develop the necessary safety skills.
4. Develop the ability to plan, establish, equip, and maintain an agricultural shop.
5. Develop the ability to select and use hand and power tools.
6. Develop the ability to repair and sharpen tools.

7. Develop the abilities needed in the area of Agricultural Woodwork and Carpentry:
 - * Figuring bills of material
 - * Making simple sketches and reading blueprints
 - * Selecting and caring for lumber
 - * Selecting and using wood fasteners
 - * Cutting rafters

8. Develop the abilities needed in the area of Painting and Glazing:
 - * Selecting and using paints
 - * Selecting and using glazing materials

9. Develop the abilities needed to Weld:
 - * With the electric arc and tig welders
 - * By the oxyacetylene process

10. Develop the abilities to work Hot and Cold Metals:
 - * Working hot metal
 - * Working cold metal

11. Learn Agricultural Power Fundamentals:
 - * Understanding the fundamental principles of engines
 - * Operating and lubricating engines
 - * Maintaining and adjusting internal combustion engines

12. Learn to select, operate, and maintain trucks.

13. Learn to select, operate, and maintain tractors.

14. Develop understandings and skills needed in the area of transmitting power by belts, chains, gears, and clutches.

15. Develop the abilities needed in the area of Field Machinery:
 - * Selecting field machinery
 - * Using and maintaining field machinery
 - * Adjusting and repairing field machinery

16. Develop the abilities needed in the area of Agricultural Buildings

and Conveniences:

- * Constructing and repairing buildings
- * Understanding concrete technology
- * Using concrete blocks and concrete
- * Establishing and maintaining water supply systems
- * Selecting, using, and maintaining plumbing equipment
- * Establishing sewage disposal systems
- * Constructing and maintaining fences

17. Develop the abilities needed in the area of Rural Electrification:

- * Understanding electrical sources and terms
- * Wiring
- * Selecting and maintaining motors

V. Academic Honesty Policy

Cheating, plagiarism (submitting another person's materials as one's own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, or term papers, or the presentation of unacknowledged materials as if it were the student's own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

NOTE: The Department of Agriculture Faculty at Murray State University have adopted and implemented an Academic Honesty Policy in addition to the University Honesty Policy. The policy sets guideline regarding acts of dishonesty and the procedure to follow should an event occur. It is each Ag. Student's responsibility to obtain and read a copy of this document. The Dept. Academic Honesty Policy can be obtained by asking for a copy from any Ag Faculty member or the Secretary.