I. TITLE:

Introduction to Agricultural Systems Technology

II. CATALOG DESCRIPTION:

Agricultural power and machinery fundamentals, agricultural electrification applications, agricultural metal working, and surveying & precision farming.

III. PURPOSE:

To introduce students to selected fields of Agricultural Engineering/Agricultural Systems Technology.

IV. COURSE OBJECTIVES:

A. Agriculture Power and Machinery
B. Agricultural Electrification
C. Agricultural Metal Work
D. Agricultural Surveying & Precision Farming.

V. CONTENT OUTLINE:

1. To show opportunities in agricultural systems technology.
2. To develop a vocabulary of agricultural engineering principles and applications.
3. To develop basic knowledge of:
   - Operating principles of engines & machinery
   - Using surveying and GPS equipment.
   - Electrical wiring & electrical theory
   - Arc and MIG welding
   - Oxy-acetylene and plasma arc cutting

VI. INSTRUCTIONAL ACTIVITIES:

1. Labs with various hands-on activities
2. Demonstration boards
3. Lecture
4. Discussion
5. Audio-video presentation  
6. Various Computer Applications

VII. FIELD AND CLINICAL EXPERIENCES:

Field trips used when applicable.

VIII. RESOURCES:

Hako Models  
Cutaways  
Lab buzzboards and test panels  
Hand Held GPS Units  
Wiring Boards  
Surveying Instruments  

IX. GRADING PROCEDURES:

90 - 100 = A  
80 - 89 = B  
70 - 79 = C  
60 - 69 = D  
Below 60 = E

1. A semester will be divided into four units consisting of approximately four week’s duration. Each period will deal with a different phase of Agriculture Systems Technology.  
2. A test will be given at the end of each unit, and a comprehensive exam will be given at the end of the semester.  
3. Unit exams and the final exam will all count equally. All tests will be worth 100 pts.  
4. All Make-up exams and assignments for excused absences will be given at the instructor convenience.  
5. Labs will be equally weighted among the four subject areas.  
6. Certain labs cannot be made up due to set up complexity.

X. ATTENDANCE POLICY:

Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin.

XI. ACADEMIC HONESTY POLICY:

(Adopted by the MSU Board of Regents)  
Cheating, plagiarism (submitting another person’s material 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, term papers, or the presentation of unacknowledged material 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 School of Agriculture Faculty at Murray State University has adopted and implemented an Academic Honesty Policy. The policy sets guidelines regarding acts of dishonesty and the procedure to follow should an event occur. It is each agriculture student’s responsibility to obtain and read a copy of this document. The School of Agriculture academic Honesty Policy can be obtained by asking for a copy from any Agriculture Faculty member, the secretary, or by viewing the School’s Website.

XII. TEXT AND REFERENCES:

Required Text: Mechanical Technology in Agriculture by Johnson
Additional Text (none required)
  A. Basic Electricity & Practical Wiring
  B. Engineering Applications in Agriculture
  C. Small Gasoline Engines
  D. Welding Skills and Practices

XIII. PREREQUISITES:

None

XIV. STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact Sabrina Y. Dial, Director of Equal Opportunity, Murray State University, 103 Wells Hall, Murray, KY 42071-3318. Telephone: 270-809-3155 (voice), 270-809-3361 (TDD).

XV. MSU SCHOOL OF AGRICULTURE CELL PHONE POLICY
The School of Agriculture recognizes that in today’s world cell phones are a familiar and often necessary form of communication for students.

It shall be the policy of the School that no cell phone usage shall be allowed in class and/or labs without the prior consent of the course instructor. This shall include verbal calling, incoming calls, email, text messaging, and use of cell phone calculators on tests and quizzes.

Cell phones must be kept off and out of sight (i.e. secured to a person’s belt or kept in a bag or purse away from desks and lab counters).

Should a student’s cell phone be visible, ring, or other form of unauthorized usage that is interruptive to the class or lab, the student may be asked to leave class and not return for that class/lab period.

Upon prior consent of the instructor, a student may obtain permission to have their phone on in case of an emergency or in critical family situations.

This policy also includes pagers and other electronic equipment such as blackberries and/or computers/laptops.