

# AGRICULTURAL      AE ENGINEERING

## Department of Biosystems and Agricultural Engineering College of Agriculture and Natural Resources

### 150    **Metal Fabrication Technology**

Fall. 2(1-2) SA: ATM 150

Physical principles and safety techniques for electric and gas welding. Soldering, brazing, cutting, tool use, machine shop equipment use, and hot and cold metalworking.

### 240    **Machine Systems and Management**

Fall. 3(2-2) P:M: CSE 101 or CSE 131 SA:  
ATM 240

Principles, analysis, performance, operation, and management of agricultural machines.

### 252    **Gasoline and Diesel Engine Technology**

Fall. 3(2-2) SA: ATM 252

Operating principles of gasoline and diesel engines and their systems. Operation and maintenance requirements.

### 254    **Fluid Power Technology**

Spring. 2(2-2) SA: AE 054, ATM 254

Fluid power in mobile equipment. Operation and characteristics of system components and circuits. Component disassembly. System testing and diagnosis.

### 261    **Principles of Animal Environments**

Spring. 2(1-2) Interdepartmental with Animal Science. Administered by Agricultural Engineering. SA: AE 061, ATM 261

Animal environment requirements. Heat and moisture production rates. Psychrometrics of air and building materials. Heat loss and ventilation systems.

### 290    **Independent Study**

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: approval of department; application required.

Supervised individual student study in electrical technology or agricultural technology.

### 490    **Independent Study**

Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 5 credits in all enrollments for this course. R: Open only to students in the College of Agriculture and Natural Resources. Approval of department; application required.

Supervised individual student research and study in agricultural engineering.

### 491    **Special Topics in Agricultural Engineering**

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to students in the College of Agriculture and Natural Resources. Approval of department.

Special topics in agricultural