# AGRICULTURAL ENGINEERING AE

## 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.

**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. Offered first ten weeks of semester.

**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. Offered first ten weeks of semester.

**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 engineering.