978 Research Methodologies in Agricultural and Resource Economics
Spring. 3(3-0) R: Open only to Ph.D. students in the College of Agriculture and Natural Resources or College of Business or College of Social Science. SA: AEC 981F

991 Advanced Topics in Agricultural Economics
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to Ph.D. students in the colleges of Agriculture and Natural Resources, Business, and Social Science; or with department approval.
Advanced topics such as price analysis, finance, risk and modeling techniques, agri-food systems, environmental economics and management, and agricultural and natural resource development and policy.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in Agricultural Economics. Approval of department.
Doctoral dissertation research.

Agricultural and Natural Resources

Agricultural 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
Spring. 3(2-2) P:M: (CSE 101 or CSE 131 or AT 000) 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) R: Open only to students in Agriculture and Natural Resources. 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. SA: AE 061, ATM 261

Agricultural Technology
College of Agriculture and Natural Resources

290 Independent Study
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to freshmen or sophomores in the Institute of Agricultural Technology. Supervised individual student research and study in agricultural engineering.

291 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. P:NM: AE 152 or ME 391 or MTH 235. R: Open only to students in the College of Agriculture and Natural Resources. Approval of department; application required.
Special topics in agricultural engineering.

AGRICULTURAL AND NATURAL RESOURCES

College of Agriculture and Natural Resources

101 Preview of Science
Fall. 1 credit. Interdepartmental with Natural Science; Engineering; Social Science. Administered by College of Natural Science. R: Approval of college.

101A Academic and Career Decision Making
Fall, Spring. 2(0-0)
Exploration of the career possibilities in agriculture, natural resources and related areas.