

Descriptions — Agricultural Economics of Courses

899. Master's Thesis Research
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 99 credits in all enrollments for this course.
R: Open only to graduate students in Agricultural Economics. Approval of department.

923. Theory of Resource and Environmental Economics
Spring of even-numbered years. 3(3-0) Interdepartmental with Resource Development; Forestry; Park, Recreation and Tourism Resources; and Economics.
P: AEC 829, EC 805.
Economic theory of environmental change and control. Market and non-market allocation mechanisms. Temporal issues of conservation and growth. Contemporary issues in research and policy.

947. Analysis of Food Systems Organization
Summer. 3(3-0)
P: AEC 810, AEC 841, AEC 845.
Public and private policy issues related to the organization and performance of food systems.

991. Advanced Topics in Agricultural Economics (MTC)
Fall, Spring, Summer. 2 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.
Topics such as international agricultural development, environmental economics, and trade policy.

992. Seminar in Agricultural Economics
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course.
R: Open only to Ph.D. students in Agricultural Economics. Approval of department; application required.
Price analysis, development, risk, trade, dynamic modeling research methods, finance and environmental economics.

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.

AGRICULTURAL TECHNOLOGY AND SYSTEMS MANAGEMENT ATM

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

315. Occupational and Personal Safety
Spring. 2(2-0)
P: CSS 101 or ANS 110 or AEE 101 or HRT 201. R: Open only to College of Agriculture and Natural Resources majors.
Principles of safety problem solving. Accident causation and prevention. Laws and regulations. Machinery, electrical, chemical and fire safety. Security. Safety program development.

326. Principles of Animal Environments
Spring. 2(2-0)
P: MTH 116 or MTH 120; CPS 101 or CPS 131. R: Open only to College of Agriculture and Natural Resources majors.
Heat and moisture balances for confined livestock. Interior environment and its control. Waste management.

431. Irrigation, Drainage and Erosion Control Systems
Fall. 3(2-2)
P: MTH 116 or MTH 120; CSS 210. R: Not open to freshmen and sophomores.
Principles of soil and water conservation engineering including: land and soil surveying, basic hydraulics, hydrology, soil moisture, and soil and water conservation practices with applications to irrigation, drainage and erosion control systems.

490. Independent Study
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
P: ATM 231 or ATM 240 or BCM 311. R: Open only to majors in Agricultural Technology and Systems Management. Approval of department; application required.
Supervised individual student research and study in agricultural technology and systems management.

491. Special Topics in Agricultural Technology and Systems Management
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
P: ATM 231 or ATM 240 or BCM 311. R: Open only to majors in Agricultural Technology and Systems Management.
Special topics in agricultural technology and systems management.

804. Agricultural Mechanization in Developing Countries
Fall of odd-numbered years. 3(3-0)
R: Open only to graduate students in College of Agriculture and Natural Resources or College of Engineering.
Human, animal and mechanical power for smaller farms. Machine selection, local manufacturing, ownership patterns.

807. Human Factors Engineering
Fall of even-numbered years. 3(3-0)
R: Open only to graduate students in College of Agriculture and Natural Resources or College of Engineering.
Ergonomics. Analysis of machine designs, operation, and working environment in relation to human limitations and capabilities. Procedures to develop maximum human-machine compatibility and performance.

831. Water, Technology and International Development
Spring of even-numbered years. 3(3-0)
P: AE 481 or ANR 489 or ATM 431 or CSS 210. R: Open only to graduate students in College of Agriculture and Natural Resources or College of Engineering.
Water resources planning and development for irrigated agriculture. Technological, agronomic, environmental, social and political constraints. Case studies.

840. Analysis of Physical Systems
Fall. 3(3-0)
P: ATM 440 or BCM 311 or MGT 306. R: Open only to graduate students in College of Agriculture and Natural Resources.
Identification and definition of systems problems in agricultural and construction industries. Model formulation and estimation.

845. Process Network Theory Applied to Agroecosystems
Spring of odd-numbered years. 4(4-0)
R: Open only to graduate students in College of Agriculture and Natural Resources or College of Engineering.
Numerical framework for the technical, economic and environmental analysis of agricultural and biological systems.

890. Special Problems
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.
R: Approval of department.
Individual study of selected topics.

891. Advanced Topics in Agricultural Technology and Systems Management
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course.
R: Open only to graduate students in College of Agriculture and Natural Resources or College of Engineering.
New developments in agricultural technology and systems management.

899. Master's Thesis Research
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 99 credits in all enrollments for this course.
R: Open only to graduate students in Agricultural Technology and Systems Management.

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 Technology and Systems Management.

AGRICULTURE AND NATURAL RESOURCES ANR

College of Agriculture and Natural Resources

101. Preview of Science
Fall. 1(1-0) Interdepartmental with Natural Science, Engineering, and Social Science. Administered by Natural Science.
R: Approval of college.
Overview of natural sciences. Transitional problems. Communications and computer skills. Problem solving skills. Diversity and ethics problems in science and society.

192. Environmental Issues Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 4 credits in all enrollments for this course. Interdepartmental with Natural Science, Engineering, and Social Science. Administered by Natural Science.
R: Open only to students in the College of Agriculture and Natural Resources, College of Engineering, College of Natural Science, and College of Social Science. Approval of college.
Environmental issues and problems explored from a variety of perspectives, including legal, scientific, historical, political, socio-economic, and technical points of view.

350. Leadership Development for Agriculture and Natural Resources
Spring. 2(2-0)
R: Not open to freshmen and sophomores. Approval of college; application required.
Preparation for community leadership. Field observation of social, economic and political problems. Emphasis on awareness, action and involvement. Seminars and interviews.

392. Agriculture and Natural Resources Seminar
Spring. 1(2-0)
R: Not open to freshmen and sophomores.
Current agricultural, natural resources and environmental problems and solutions. Discussion leaders from various disciplines.