

School of Agribusiness and Agriscience

Warren Gill, Director
Stark Agribusiness and Agriscience Center 100

The School of Agribusiness and Agriscience offers a minor at the graduate level.

Courses in Agribusiness and Agriscience [ABAS]

- 5100 Microcomputer Applications in Agriculture.** Three credits. Prerequisite: CSCI 1150 or INFS 2200. Includes use of agricultural software, agricultural communications network, computer daily feeding machines, and farm records.
- 5130 Agricultural Marketing and Price Analysis.** Three credits. Prerequisite: ABAS 3130 or approval of instructor. Agricultural prices and their relationship to production and marketing. Agricultural marketing systems, functions, institutions, and structural changes.
- 5140 Economics of Agribusiness Management.** Three credits. Prerequisite: ABAS 3130 or approval of instructor. The application of economic concepts to agribusiness firms.
- 5150 Agricultural Policy.** Three credits. Prerequisite: ABAS 3130 or approval of instructor. Agricultural policy in a democratic society; relationship of farm groups to public policy; types of agricultural programs and appraisal of their results.
- 5200 Fruit and Vegetable Marketing.** Three credits. Prerequisites: PSCI 1030/1031 and BIOL 1030/1031 or approval of instructor. Basic biochemistry of respiration, handling techniques and practices, quality assessment, and marketing of fruit and vegetable crops. Both domestic and international marketing of fruit and vegetable products discussed. Examines economic impact of improper handling on both the local producer and the end user.
- 5210 Farm Power and Equipment.** Three credits. Gasoline engines with actual work experience in overhaul. Work also with transmissions, hydraulics, braking systems, and other farm equipment including use of shop manuals, operation manuals, and parts books.
- 5220 Methods of Teaching Agriscience and Agricultural Mechanics.** Three credits. Emphasis on performing shop skills such as welding, brazing, electrical wiring, etc.
- 5230 Adult Education in Vocational-Education and Program Development.** Three credits. How to teach adults and administer adult programs. Emphasis on planning, organizing, and arranging courses for adults in agriculture.
- 5260 Behavior of Domestic Animals.** Three credits. Behavior aspects of raising and managing domestic animals to include equine, swine, goats, cattle, sheep, dogs, and cats. Communicative, ingestive, sexual, social, aggressive, and abnormal behaviors emphasized.

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- 5310 Forage Crops.** Three credits. Adaptation, distribution, establishment, management, cultivation, and utilization of forage legumes and grasses.
- 5330 Turf Management.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Establishment and management of turf grasses for lawns, golf courses, and parks.
- 5340 Soil Formation and Remediation.** Three credits. Prerequisite: ABAS 3340. Environmental factors affecting soil formation and utilization.
- 5350 Soil Survey and Land Use.** Three credits. Prerequisite: ABAS 3340 or approval of instructor. Soil properties used to determine suitability for land use. Lecture/lab.
- 5400 Horsemanship—Equitation.** Three credits. Prerequisite: ABAS 2400 or approval of instructor. Proper horseback riding, handling, mounting, and dismounting. Various gaits and proper equitation stressed. One lecture and two two-hour laboratory periods.
- 5410 Animal Nutrition and Feeding.** Three credits. Gastrointestinal tract, process of digestion, and nutrient utilization. Application of principles of animal nutrition to formulation of supplements and complete rations for livestock.
- 5420 Genetics of Domestic Livestock.** Three credits. Basic principles of genetics, inbreeding, quantitative traits in livestock, prediction of breeding value and genetic progress, method of selection, mating systems, methods of genetic evaluation, computer software for animal breeding and genetics, and genetic engineering.
- 5430 Horse Production.** Three credits. Prerequisite: ABAS 2400, 3400, and one of the following: ABAS 3300, 4090, or 4440 or consent of instructor. Scientific principles relevant to production requirements of horses as related to exercise physiology and performance, growth, reproductive physiology and state, age, and clinical support. Facilities management, marketing, legal aspects of horse ownership and career opportunities covered.
- 5460 Care and Training of Horses.** Three credits. Prerequisites: ABAS 2400, 3400, and 4400 or approval of instructor. Theory, fundamentals, and practices of breaking, training, fitting, showing, and the use of light horses for riding and driving, with special emphasis on the Tennessee Walking Horse and the needs of the local area.
- 5470 Advanced Beef Production.** Three credits. Prerequisite: ABAS 3470 or approval of instructor. In-depth look at various systems of beef production from standpoint of function, economics, and suitability to locale. Extensive field trips to commercial cow-calf, feedlot, performance testing, stocker, and purebred operations.
- 5510 Domestic Animal Reproductive Physiology.** Three credits. Advanced topics in the anatomy, physiology, and endocrinology of reproduction in domestic livestock species. Topics include male and female physiology and an overview of comparative anatomy and physiology between species. Current technologies and methods in controlling reproduction in livestock species also discussed.
- 5620 Greenhouse Management.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Analysis of soils, fertilizers, irrigation techniques, container preparation, ventilation, growth regulation, and carbon dioxide enrichment for greenhouse operation. Two hours lecture and one two-hour lab.
- 5630 Floriculture.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Propagation and other cultural practices for the production and maintenance of plants and flowers in the home. Two hours lecture and one two-hour lab.
- 5640 Landscaping.** Three credits. Application of the principles of design, the use of proportionate-sized woody landscape plants, and other practices to produce low-maintenance-cost landscapes. One hour lecture and one four-hour lab.
- 5670 Plant Propagation.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120/1121. Anatomical features and physiological principles involved in propagating plants from seed and by division, cutting, budding, and grafting. Use of growth regulators and environmental factors. Two hours lecture and one two-hour lab.
- 5700 Agriculture in Our Lives.** Three credits. The national and international importance of U.S. agriculture. Emphasis on food production and marketing, land conservation, and agriculture related recreation. Accepted as a natural science elective for education majors. NO CREDIT GIVEN TOWARD A MAJOR IN THE SCHOOL OF AGRIBUSINESS AND AGRISCIENCE.
- 5830 Food Quality Control.** Three credits. Prerequisites: PSCI 1030/1031 and BIOL 1030/1031 or approval of instructor. Quality control and sensory evaluation techniques utilized in food processing. Instrumental and physical methods of quality determination of raw and processed food products, hazard analysis and critical control point (HACCP), and quality philosophies employed in the industry. Sensory evaluation techniques and statistical analysis of evaluation results covered.
- 5910 Problems in Agriculture.** One to six credits. Problem or problems selected from one of the major disciplines. May involve conferences with instructor, library work, field study and/or laboratory activity. Students can take from one to three credits with a maximum of three per semester.
- 5980 Seminar in Horse Science.** One credit. Familiarizes horse science majors with important current scientific investigation in horse science.
- 5990 Seminar.** One credit. Students required to research and make an oral report on a current agricultural topic.
- 6450-6455 Problems in Agriscience Technologies.** Three credits each. Prerequisite: Teaching experience or approval of instructor. Provides agricultural education teachers with intensive training in advanced technologies. A MAXIMUM OF SIX CREDIT HOURS IN EACH DIVISION.
- 6451 Animal Science**
 - 6452 Plant Science**
 - 6453 Agricultural Mechanics**
 - 6454 Agribusiness**
 - 6455 Forestry and Agricultural Products**