

School of Agribusiness and Agriscience

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Stark Agribusiness and Agriscience Center 100

The School of Agribusiness and Agriscience cooperates with the Departments of Business Education, Marketing Education, and Office Management; Human Sciences; and Engineering Technology and Industrial Studies to offer the Master of Vocational-Technical Education (M.V.T.E.) degree. The school also offers a minor at the graduate level.

Courses in Agribusiness and Agriscience [ABAS]

- 5100 (510) 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 (513) 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 (514) Economics of Agribusiness Management.** Three credits. Prerequisite: ABAS 3130 or approval of instructor. The application of economic concepts to agribusiness firms.
- 5150 (515) 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 (520) Fruit and Vegetable Marketing.** Three credits. Prerequisites: PSCI 1030 and BIOL 1030 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 (521) 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 (522) Methods of Teaching Agricultural Mechanics.** Three credits. Emphasis on performing shop skills such as welding, brazing, electrical wiring, etc.
- 5230 (523) 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 (526) 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.
- 5310 (531) Forage Crops.** Three credits. Adaptation, distribution, establishment, management, cultivation, and utilization of forage legumes and grasses.
- 5330 (533) Turf Management.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120. Establishment and management of turf grasses for lawns, golf courses, and parks.
- 5340 (534) Soil Formation.** Three credits. Prerequisite: ABAS 3340. Environmental factors affecting soil formation and utilization.
- 5350 (535) 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 (540) 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 (541) 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 (542) 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 (543) Light Horse Production.** Three credits. Prerequisite: ABAS 2400 or approval of instructor. Breeding, feeding, management, and disease control practices essential for economical light horse production.
- 5460 (546) 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 (547) 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 (551) 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 (562) Greenhouse Management.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120. 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 (563) Floriculture.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120. 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 (564) 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.
- 5650 (565) Plant Breeding.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120. Application of genetics to theory and breeding practices for improvement of agronomic and ornamental plants.
- 5670 (567) Plant Propagation.** Three credits. Prerequisite: ABAS 1610 or BIOL 1120. 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 (570) 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 (583) Food Quality Control.** Three credits. Prerequisites: PSCI 1030 and BIOL 1030 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 (591) 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 (598) Seminar in Horse Science.** One credit. Familiarizes horse science majors with important current scientific investigation in horse science.
- 5990 (599) Seminar.** One credit. Students required to research and make an oral report on a current agricultural topic.
- 6450- (645 A, B, C, D, E) Problems in Agriscience Technologies.**
- 6455** 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 (645A) Animal Science**
- 6452 (645B) Plant Science**
- 6453 (645C) Agricultural Mechanics**
- 6454 (645D) Agribusiness**
- 6455 (645E) Forestry and Agricultural Products**