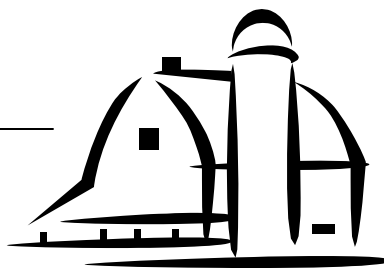


Agricultural Science

Truman State University 2009-2010



The Program

Truman State University offers a Bachelor of Science Degree in Agricultural Science. Students complete a set of core courses covering the breadth of agriculture and have great flexibility in choosing courses to specialize their degree in one of four areas:

- 🌾 Equine Studies
- 🌾 Pre-Veterinary Medicine & Animal Science
- 🌾 Agricultural Business
- 🌾 Plant Science/Horticulture

Minors are available in Agriculture Studies, Equine Science, and Agricultural Business

Our Vision

Our approach emphasizes the interconnections between farms, ecosystems, and consumers that are necessary to achieve sustainable food production for the future. The agriculture curriculum is multidisciplinary, hands-on, and problem-focused. Students not only develop technical expertise, but cultivate the entrepreneurial attitude and breadth of understanding to succeed in a range of careers and further study.

Farm & Facilities

Activities at the University Farm and Magruder Hall science facility, ranging from classwork to research to recreation, are a critical component of student learning.

The 400-acre farm is located just 1.5 miles from campus and features:

- 🌾 Classroom/lab, equine, and cattle facilities
- 🌾 40-head riding/breeding horse herd
- 🌾 Indoor and outdoor riding arenas
- 🌾 A herd of Gelbvieh beef cattle
- 🌾 Two greenhouses, an orchard, vineyards, and garden plots
- 🌾 Agronomy research plots and crops
- 🌾 Beautiful, rolling grassland and woodland areas
- 🌾 Horse boarding available by contract

Our approach emphasizes experiential learning:

- 🌾 A student:faculty ratio of 15:1 allows for close interaction and mentoring of students.
- 🌾 Each year, on average, 20 percent of agriculture students present their research results at the Truman Research Conference.
- 🌾 On average, 15 percent of seniors graduate with departmental honors.
- 🌾 Students learn skills and practice procedures that they would not undertake until the graduate level at a larger institution.

Student Organizations

Agricultural Science students are active members and leaders in a broad spectrum of campus and community organizations and activities. Organizations based in Agricultural Science include:

- 🌾 Pre-Veterinary Club
- 🌾 Horseman's Association
- 🌾 Equestrian Team
- 🌾 Cattle Show Team
- 🌾 Collegiate Farm Bureau
- 🌾 Delta Tau Alpha National Honorary

Faculty

- 🌾 Abdo Alghamdi, Ph.D., University of Minnesota; abdo@truman.edu Equine Science; Animal Reproduction
- 🌾 Mark Campbell, Ph.D., Iowa State University; campbell@truman.edu Soils; Plant Science; Forage Crops
- 🌾 Emily Costello, B.S., Truman State University; ecostello@truman.edu Horsemanship; Horse Training; Equestrian Coach
- 🌾 Susan Guffey, DVM, University of Illinois; sguffey@truman.edu Animal Health; Anatomy & Physiology
- 🌾 Bill Kuntz, B.S., Truman State University; brkuntz@truman.edu Farm Manager, Instructor—Agronomic Techniques
- 🌾 Tom Marshall, Ph.D., Purdue University; temarsh@truman.edu Animal Agriculture; Genetics; Sheep & Swine Production
- 🌾 Michael Seipel, Ph.D., University of Missouri; mseipel@truman.edu Marketing; Ag. Policy; Sustainable Agriculture
- 🌾 Glenn Wehner, Ph.D., University of Tennessee; gwehner@truman.edu Beef Production; Nutrition; Meat Science

Learn more at <http://agriculture.truman.edu>
Questions? Email Dr. Michael Seipel at mseipel@truman.edu

Research

Students have numerous opportunities to undertake mentored research with a faculty member and can apply for funding to pursue independent projects. Current and recent agricultural research projects include:

- 🌱 Determination of Dominance Hierarchy and the Influence of Preferred Association in Horses
- 🌱 Comparison of Seasonal Transition in Mares Treated with Artificial Light Treatment and Those Exposed to Natural Light
- 🌱 Levels of Aggression and Social Hierarchies in the Quarter Horse
- 🌱 Anti Gelling Additives to Optimize Winter Use of Biodiesel
- 🌱 Scanning Electron Microscopy of High Amylose Corn Starch
- 🌱 Development of a NITS Calibration for Starch Amylose Using Materials from an Amylomaze VII Yield Trial
- 🌱 The Effects of Resistant Starch from High Amylose Corn on Swine Growth, Feed Efficiency, and Odor
- 🌱 The Effects of Shearing, Sex, and Time of Feeding on Growth and Feed Efficiency in Sheep
- 🌱 Effects of Finishing Lambs on Standing Grain Pasture versus Finishing Lambs in a Feedlot
- 🌱 Efficacy of Subjective Visual Udder Scores in Beef Cows for the Prediction of Weaning Weight of Calves
- 🌱 Association of Pasture Intake with Milk Production in Grazing Gelbvieh Cow-Calf Pairs
- 🌱 Determination of Time Difference Between Two Commonly Used Estrus Detection Systems in Gelbvieh Cattle
- 🌱 Use of Glycerol from Biodiesel Production as a Supplemental Cattle Feed
- 🌱 The Effect of Health Ordinances on Agricultural and Economic Indicators in Missouri Counties
- 🌱 The Effect of Nitrogen Application Dates & Amounts on Fescue & Fescue/Red Clover Stockpiled Pasture Yield
- 🌱 Yield in Commercial Tomato Plots Mulched with Painted Polyethylene or Straw Mulch

Internships

An internship experience can enrich a student's education. Up to five credit hours can apply directly to major requirements. Recent sites include:

- 🌱 St. Louis Zoo; Omaha Zoo; Milwaukee Zoo
- 🌱 Grant's Farm
- 🌱 Lane's Farm (KY) & other horse breeding
- 🌱 U.S. Department of Agriculture (NRCS)
- 🌱 USDA Meat Animal Research Center
- 🌱 Missouri Department of Conservation
- 🌱 Montana State University
- 🌱 North Carolina State University Center for Environmental Farming Systems
- 🌱 Greenley Research Center
- 🌱 Shaw Nature Reserve (Botanical Gardens)
- 🌱 Miner Institute (Equine Management), Chazy, NY
- 🌱 Theodore Roosevelt National Park (ND)

Careers

Approximately 67-75% of graduates go directly into the work force, some as self-employed business owners, others with these and many other employers:

- 🌱 USDA-NRCS—Soil Conservationist, Grasslands Conservationist
- 🌱 USDA-FSA—County Executive Director
- 🌱 Land O'Lakes Animal Nutrition
- 🌱 Diamond V Animal Nutrition
- 🌱 Growmark
- 🌱 Grant's Farm
- 🌱 Tyson/IBP
- 🌱 Peace Corps
- 🌱 Fastenal Corporation

Graduate and Professional Schools

Approximately 25-33% of students attend graduate or professional schools following graduation. Over seven years, AGSC graduates have averaged a 51% acceptance rate to Missouri's vet school, compared to a 39% rate for other applicants.

In recent years, Truman agriculture students have attended these graduate/professional schools:

- 🌱 Vet Schools-Missouri, Iowa St., Illinois, Nebraska
- 🌱 Colorado State (Integrated Resource Mgmt)
- 🌱 University of Wyoming (Animal Science)
- 🌱 Univ. of Wisconsin-Madison (Nutrition)
- 🌱 Univ. of Nebraska (Turf Management)
- 🌱 Iowa St. Univ. (Wetland Ecology, Genetics)
- 🌱 Virginia Tech (Plant Breeding)
- 🌱 Michigan St. Univ. (Agric. Economics)
- 🌱 University of Missouri (Ag. Educ., Animal Science)

Study Abroad

The flexible structure of the AGSC major makes it possible for students to pursue study abroad opportunities and apply hours earned toward their degree. Recently, students have studied in

- 🌱 Ireland (University of Limerick)
- 🌱 New Zealand (Christchurch)
- 🌱 Costa Rica
- 🌱 Germany
- 🌱 Australia
- 🌱 South Africa