ANIMAL SCIENCE

OVERVIEW
The research program focuses on lactation physiology and mammary gland biology involving a combination of courses and graduate research. Areas of research interests include lactation physiology, breast cancer, mastitis, developmental biology, nutrition, immunology, cell signaling and metabolism, biotechnology, and transgenics.

DEGREES
- Animal Science AMP
- Animal Science M.S.

FACULTY
- Barlow, John W.; Assistant Professor, Department of Animal Science; DVM, University of Illinois Urbana-Champaign
- Dann, Heather; Adjunct Assistant Professor, Department of Animal Science; PHD, University of Illinois
- Fobare Erickson, Patricia Ann; Senior Lecturer; DVM, Cornell University
- Grant, Richard; Adjunct Professor, Department of Animal Science; PHD, Purdue University
- Greene, Elizabeth Ann; Extension Professor, Department of Animal Science; PHD, Kansas State University
- Greenwood, Sabrina Louise; Assistant Professor, Department of Animal Science; PHD, University of Guelph
- Kerr, David E; Associate Professor, Department of Animal Science; PHD, University of Saskatchewan
- Kraft, Jana; Assistant Professor, Department of Animal Science; PHD, University of Jena
- McKay, Stephanie Dawn; Assistant Professor, Department of Animal Science; PHD, University of Alberta
- Smith, Julia M.; Extension Associate Professor, Department of Animal Science; PHD, Cornell University
- Wright, Andre-Denis G.; Professor, Department of Animal Science; PHD, University of Guelph
- Zhao, Feng-Qi; Associate Professor, Department of Animal Science; PHD, University of Alberta

Courses
- ASCI 215. Physiology of Reproduction. 3 Credits.
  Fundamental principles of the physiology of reproduction with emphasis on, but not limited to, farm animals. Prerequisites: ASCI 141 or Instructor permission.
- ASCI 216. Endocrinology. 3 Credits.
  Physiology of endocrine and autocrine/paracrine systems and growth factors. Prerequisites: Course in both Biology and physiology; one course in Anatomy desirable.
- ASCI 220. Lactation Physiology. 3 Credits.
  Physiological mechanisms that control and affect lactation in domestic and laboratory animals with emphasis on dairy cattle. Includes mammary anatomy, development and health, and milk synthesis. Prerequisite: One chemistry course and one course in anatomy and physiology, or Instructor permission.
- ASCI 230. Agricultural Policy & Ethics. 3 Credits.
  Examines American agriculture and policies from various perspectives - historical, political, ecological, technological, social, economic, and ethical. Emphasis on contemporary issues, policy options, future developments. Prerequisite: Junior standing or permission.
- ASCI 263. Clin Top:Companion Animal Med. 3 Credits.
  The use of case studies in companion animal medicine to develop clinical, analytical, and diagnostic skills. Prerequisite: ASCI 118; ASCI 141; Junior standing.
- ASCI 264. Clin Topics:Livestock Medicine. 3 Credits.
  An advanced study of diseases in cattle, sheep, goats, and pigs, emphasizing disease detection, pathobiology, treatment and prevention. Prerequisites: ASCI 118, ASCI 141, Junior standing.
- ASCI 272. Adv Top:Zoo,Exotic,Endang Spec. 3 Credits.
  An exploration of modern zoo philosophy and ethics and the extent of human intervention necessary for the preservation of endangered species. Prerequisite: ASCI 171 and Instructor permission.
- ASCI 297. Advanced Special Topics. 0.5-15 Credits.
  Written courses, seminars or topics beyond the scope of existing offerings. See Schedule of Courses for specifics. Prerequisite: Department Chair permission. May enroll more than once for maximum of fifteen hours.
- ASCI 298. Advanced Special Topics. 0.5-15 Credits.
  Written courses, seminars or topics beyond the scope of existing offerings. See Schedule of Courses for specifics. Prerequisite: Department Chair permission. May enroll more than once for maximum of fifteen hours.
- ASCI 301. ASCI Graduate Journal Club. 1 Credit.
  Students learn to critically read and discuss current scientific literature in terms of scientific method and merit. Pre/corequisite: Graduate standing.
- ASCI 302. ASCI Graduate Seminar. 1 Credit.
  Topics of current faculty and graduate student interest presented in a seminar-discussion format. Pre/corequisite: Graduate standing.
- ASCI 303. Research Proposal Writing. 1 Credit.
  Students develop and write a formal proposal for their graduate research project. Pre/co-require: Graduate standing; must be taken prior to/during the semester of student’s first committee meeting.
- ASCI 391. Master’s Thesis Research. 1-10 Credits.
- ASCI 392. Independent Literature Rsch. 1-6 Credits.
- ASCI 395. Special Topics. 1-6 Credits.
ASCI 396. Special Topics. 1-6 Credits.
ASCI 491. Doctoral Dissertation Research. 1-12 Credits.