ANIMAL SCIENCE

OVERVIEW
The research program focuses on farm animal agriculture involving a combination of courses and graduate research. Areas of research interest include lactation physiology, mastitis, calf and cow nutrition, immunology, and genetics.

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

FACULTY
Barbano, David Mark; Adjunct Professor, Department of Animal and Veterinary Sciences; PHD, Cornell University
Barlow, John; Associate Professor, Department of Animal and Veterinary Sciences; DVM, University of Illinois Urbana-Champaign; PHD, University of Vermont
Dann, Heather; Adjunct Assistant Professor, Department of Animal and Veterinary Sciences; PHD, University of Illinois
Fobare Erickson, Patricia Ann; Senior Lecturer, Department of Animal and Veterinary Sciences; DVM, Cornell University
Grant, Richard; Adjunct Professor, Department of Animal and Veterinary Sciences; PHD, Purdue University
Greenwood, Sabrina Louise; Assistant Professor, Department of Animal and Veterinary Sciences; PHD, University of Guelph
Kraft, Jana; Associate Professor, Department of Animal and Veterinary Sciences; PHD, University of Jena
McKay, Stephanie Dawn; Assistant Professor, Department of Animal and Veterinary Sciences; PHD, University of Alberta
Smith, Julia M.; Research Associate Professor, Department of Animal and Veterinary Sciences; PHD, Cornell University
Townson, David H; Professor, Department of Animal and Veterinary Sciences, PHD, Michigan State University
Van Amburgh, Michael; Adjunct Professor, Department of Animal Science; PHD, Cornell University
Zhao, Feng-Qi; Professor, Department of Animal and Veterinary Sciences; 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. Prerequisite: ASCI 141 or equivalent or Instructor permission.

ASCI 216. Endocrinology. 3 Credits.
Physiology of endocrine and autocrine/paracrine systems and growth factors. Prerequisites: BIOL 001 or BCOR 011 and ASCI 141 or ANPS 019 or ANPS 020.

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. Prerequisites: 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. Prerequisites: ASCI 171 and Instructor permission.

ASCI 297. Advanced Special Topics. 1-18 Credits.
Written courses, seminars or topics beyond the scope of existing offerings. See Schedule of Courses for specific titles. Prerequisite: Department Chair permission. May enroll more than once for maximum of fifteen hours.

ASCI 298. Advanced Special Topics. 1-18 Credits.
Written courses, seminars or topics beyond the scope of existing offerings. See Schedule of Courses for specific titles. 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. 2 Credits.
Students discuss and practice the grant/proposal writing process by developing and writing a research proposal in response to a specific request for proposals. Students practice grant writing and review, and they share their work and review the work of others. Pre/Co-requisites: Graduate standing; recommended be taken prior to/during the semester of student's first committee meeting.
ASCI 322. One Health: Zoonoses. 3 Credits.
Zoonoses and vector-born disease account for the majority of emerging and re-emerging diseases. Students will learn about the drivers that influence infection in animals and humans, tools used for disease monitoring and prevention, and policies and programs aimed at prevention.

ASCI 391. Master’s Thesis Research. 1-10 Credits.

ASCI 392. Independent Literature Rsch. 1-6 Credits.
Reading and literature research culminating in a paper on a topic of current interest in Animal Sciences.

ASCI 393. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

ASCI 395. Special Topics. 1-6 Credits.

ASCI 396. Advanced Special Topics. 1-6 Credits.

ASCI 491. Doctoral Dissertation Research. 1-12 Credits.

ASCI 492. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

ASCI 496. Advanced Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.