ANIMAL SCIENCES (ASCI)

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 111 and ASCI 120; or ASCI 141; or Instructor permission.

ASCI 216. Endocrinology. 3 Credits.
Physiology of endocrine and autocrine/paracrine systems and growth factors. Prerequisites: BIOL 001, BCOR 011, or BCOR 021; CHEM 026 or CHEM 141; ASCI 120, ASCI 141, 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: CHEM 023 or CHEM 031; and ASCI 141 or both ASCI 111 and ASCI 120.

ASCI 263. Clin Top: Companion Animal Med. 3 Credits.
Case studies in companion animal medicine are used to develop clinical, analytical, and diagnostic skills based on a knowledge of anatomy and physiology. This course also explores problem-based learning in medicine. Prerequisites: ASCI 118; and ASCI 141 or both ASCI 111 and ASCI 120; minimum 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 278. Molecular Epidemiol Infect Dis. 3 Credits.
Provides a foundation of knowledge on the use of molecular biology tools to study infectious disease problems; explores how biologists and health scientists link epidemiological methods and molecular biology techniques to address global health issues. Prerequisites: Minimum Junior standing, one 100-level course in BioCore, Biology, Health, Health Sciences, or Microbiology and Molecular Genetics or ASCI 118 or ASCI 177 or Graduate student standing or Instructor permission.

ASCI 279. One Health: Antimicrob Resist. 3 Credits.
Provides a foundation of knowledge on the problem of antimicrobial resistance and factors that contribute to the emergence and spread of resistant micro-organisms. Considers antimicrobial resistance from a One Health perspective, integrating animal, environmental and human health. Prerequisites: Minimum Junior standing, one 100-level course in BioCore, Biology, Health, Health Sciences, or Microbiology and Molecular Genetics or ASCI 118 or ASCI 177 or Graduate student standing or Instructor permission.

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/Corequisites: 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. Cross-listed with: PH 322.

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

ASCI 395. Special Topics. 1-6 Credits.

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

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

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