Undergraduate Minor in ANVS

The Departments of Animal Science and Veterinary Sciences offer a minor in animal and veterinary science for non-majors. The courses required for a minor must be taken for a letter grade and the student must receive a grade of C or better in each course. Courses required are: ANSC 3010, 3100, 4120, 4540, FDSC 3060; PATB 4110 and at least one of the following: ANSC 3150, 4220, 4230. The Department of Animal Science or Veterinary Sciences undergraduate minor adviser may be contacted by students needing assistance or having questions.

3010. Comparative Anatomy and Physiology of Domestic Animals. 4. [S1<>](none)] Teaches comparative anatomy and physiology of digestion, circulation, production, reproduction and environment of farm animals. Prerequisites: LIFE 1010 and 2022 with a grade of C or better in each. (Normally offered spring semester)

3100. Principles of Animal Nutrition. 3. Description of the nutrients, nutrient digestion and absorption, and nutrient function within the body of various domesticated animals. Prerequisites: CHEM 2300 or ANSC 2010. (Normally offered fall semester)

4120. Principles of Mammalian Reproduction. 3. Overview of the anatomy, physiology, endocrinology and biochemistry of reproductive processes in male and female mammals. Dual listed with ANSC 5120. Prerequisite: a course in systemic anatomy and physiology/endocrinology or consent of instructor. (Normally offered fall semester and on a continual basis by independent study)

4540. Principles of Animal Breeding. 3. [M3<>](none)] Discusses genetic principles underlying animal improvement; introductory population genetics; heritability; systems of mating; and selection. Prerequisites: MATH 1000 or a statistics course; LIFE 4000 or consent of instructor. (Normally offered fall semester)

3060. Principles of Meat Science. 4. Fabrication of carcasses into cuts and associated processing techniques; muscle growth, structure and metabolism; conversion of muscle into meat; fresh meat properties and quality; chemical properties of meat; meat microbiology, preservation and storage; meat by-products; HACCP. Prerequisites: CHEM 1000 and LIFE 1010.

4110. Diseases of Food Animals and Horses. 3. Acquaints students with general principles of animal disease. Systematically discusses specific diseases of cattle, sheep, swine and horses. Prerequisite: junior standing. (Normally offered spring semester)
One of the following:

3150. **Equine Nutrition and Physiology.** 3. Provides general knowledge of nutrition, physiology and biochemistry of exercise and reproductive processes of equine. Prerequisite: 4 hours of biology. (Normally offered fall semester)

4220. **Advanced Beef Production and Management.** 3. Integrates animal breeding, nutrition and reproductive physiology in beef production management schemes. Emphasizes analysis and decision making. Consists of two hours of lecture and two hours of lab, with approximately one-half of labs meeting at Animal Science Livestock Center. Prerequisite: ANSC 3100, 4120, 4540 or consent of instructor. (Normally offered spring semester)

4230. **Advanced Sheep Production Management.** 3. Integrates animal breeding, nutrition and reproductive physiology in sheep production management schemes. Prerequisite: ANSC 3100, 4120, 4540 or consent of instructor. (Normally offered spring semester)