

# ANIMAL SCIENCES, B.S.

## LEARNING OUTCOMES

1. (Knowledge and comprehension) Develop the working vocabulary of an animal scientist, a working knowledge of the basic anatomy, biochemistry, physiology, and genetics of animal and meat biology, and the applied nutrition, breeding, product harvest and processing skills, necessary to manage animal production systems. Demonstrate knowledge through rigorous examination and demonstration through hands-on instructional laboratory activities.
2. (Analytical processing) Develop the ability to reduce complex datasets and scientific information into meaningful relationships and correlations, and using the scientific literature, develop hypotheses to test the cause of predicted relationships using the scientific method. Demonstrate skills through a senior capstone experience and through individualized research opportunities and instructional activities.
3. (Integration for application) Apply knowledge to develop solutions to real world problems. Identify problems yet to be investigated and in need of advanced study. Ability to integrate and apply knowledge is demonstrated through our internship programs, animal related job experiences, club activities, and problems sets that students solve in exams and laboratory settings.
4. (Critical thinking) Find their sources of information using peer reviewed research articles. Learn not only to question popular press, but understand that even in the scientific literature there are contradictory findings. Capacity to synthesize scientific literature such that they can communicate a position backed with strong scientific support. Skills are demonstrated through the reading, writing and discussion of science-based papers in key courses during their educational process and through an oral presentation in their capstone course.
5. (Effective communication) Communicate, both in writing and orally, the science behind the biology and management of domestically farmed animals. Communications provide new insights into animal production, and are explained in a manner fitting with the audience. Ability to communicate is measured by their effectiveness in presenting research posters and presentations, their analysis of the literature in papers and presentations in class and during their senior capstone course.