

Summarized Review of Degree Program
Animal Sciences and Industry Bachelor of Science Degree
Prepared by Don Boggs, Associate Dean, College of Agriculture

1. Mission, Centrality and Uniqueness:

The Animal Sciences and Industry Department (ASI) is central to Kansas State University's Land Grant mission. The department's mission is to provide education, service and leadership to Kansas, national and international stakeholders through development, interpretation and dissemination of knowledge of animals for food, fiber, companion and recreational purposes; for safe, responsible, ecologically sustainable, and competitive food production. With 24 percent of the gross state product provided by food related industries, higher education degree programs in the Animal Sciences are essential for sustainability and profitability of the livestock and animal foods industries within the state, and where appropriate, the region, the nation and the world. ASI is the only department in the College and University offering B.S., M.S., or Ph.D. degrees related to the production, management and processing of animals for food, fiber, companion and recreation. No other department in the Regents system or state has the breadth of training associated with research and outreach opportunities for any of these degrees and none offer graduate degrees. The department has expanded its efforts in recreational and companion animals. This has enabled the department to reach non-traditional audiences and has enhanced the diversity of the department, especially in the percentage of females enrolled in the major. Faculty also serve the animal and food science industries through the conduct of basic and applied research, extension education programs, and numerous service roles and activities.

2. Quality of Faculty

ASI has 40 tenure-track faculty within their missions of teaching, extension, research and international programs, with 14.98 instructional FTE. One hundred percent of the tenured/tenure-track faculty hold terminal degrees and most faculty have joint appointments between teaching, research, and extension. There are commodity sections in dairy, poultry, beef, swine, sheep and horses. The department has 35 support persons and 39 additional classified staff. Scholarship responsibilities include providing leaders in all areas of animal agriculture and the food industry. In the last five years, faculty members have been recognized at commencement for winning 28 teaching-related awards and 41 total awards. Meat and Poultry magazine annually ranks the K-State ASI Department as #3 in the nation. Two ASI faculty have been recognized among the "Fifty Most Influential People" in the U.S. swine industry by the National Hog Farmer magazine. Faculty members conduct original research and are highly published in the leading research journals in the discipline.

3. Quality of Students

Student demand can be shown by high enrollments over a five-year period, when undergraduate enrollment has averaged 586 with a nine-percent increase since 2001. The Animal Science major attracts a wide array of students from varying backgrounds with varying levels of scholastic abilities. The current enrollment features a balance of students from small, rural high schools to larger, urban schools. Approximately one-third of the students transfer from community colleges or other 4-year schools. Approximately 10% are out-of-state students attracted by the strong reputation for teaching in the department. The ACT score for upper class students averages a 23 with a range of 14-34. ASI students are active leaders in numerous campus and industry organizations and the major has supplied the majority of the students participating in the College Honor's program. The department sponsors numerous judging and academic teams that are consistently competitive at the national level.

4. Employer Demand

Shortages of four year college graduates have been documented by the U.S.D.A. for graduates in the following curriculum areas: marketing, merchandising, and sales representatives; managers and financial specialists; and scientists and related specialists. Most of the animal science students graduate with a specialization in production management, business, science, or animal products and are qualified to fill those areas having employee shortfalls. Career opportunities in animal sciences range from self-employment to jobs with large corporations. In the business world, positions include management, sales, product development, personnel administration, regulation, field service, and government relations. Education positions include extension agents, teacher, research technician and laboratory director. In the agricultural communications field, there are editors, field representatives, broadcasters and public relations professionals. Among others, K-State animal sciences graduates are employed by artificial insemination services, feed companies, banks, equipment suppliers, cooperatives, breed associations, meat packers, food processors, dairy plants, feedlots, poultry integrators, and commercial farms and ranches.

5. Service Provided to the Discipline, the University and Beyond

ASI is home to approximately one-third of the undergraduates in the College of Agriculture, and it is the third largest animal science program in the U.S. ASI faculty also teach and conduct research in the Food Science Institute. Departmental faculty provide leadership and advisor roles for the undergraduate Animal Sciences and Industry Degree and the undergraduate Food Science and Industry degree, plus they advise over 90 percent of the undergraduates in the Pre-Veterinary Agriculture curriculum option. ASI provides 32 distance learning courses and teaches two general education courses. Instructional service is used by all departments in the College of Agriculture and students in other colleges that have specific animal related interests. The genetics course is taken by most pre-veterinary medicine students as are many of the pre-veterinary elective courses such as Principles of Animal Science, Animal Science, Poultry, Dairy, and Companion Animal laboratories, Anatomy and Physiology, Principles of Animal Disease Control and Farm Animal Reproduction. Equine courses are in demand across the University. Companion Animal Management is taken by students from a variety of programs. In response to their recent CSREES review, the department has developed and proposed a new option in animal biotechnology to address the industries need for more professionals trained in the biosciences. ASI faculty are also highly engaged with the livestock and food industries, and they annually host numerous livestock events and activities for producers and 4-H and FFA members.

6. Cost Effectiveness

The ASI department generated 2.0% of K-State's undergraduate credit hours and 1.5% of the graduate credit hours with 2.2% of K-State's General Use Expenditures. Given the high percentage of classes that have laboratories, the high costs of maintaining teaching farms, and that over 95% of the student credit hours are generated in courses taught by tenure-track faculty, the ASI program is best described as highly cost effective. The recent CSREES Review recommendations indicated the department needs to conduct a thorough review of course offerings in order to create more time for research activities. The review team recommended consolidation of sections, eliminating some courses and reducing the frequency of offerings. While these processes would further enhance the efficiency of the department, care must be taken that larger sections and less frequent course offerings to do not negatively impact the quality of the educational experience for the students. Additional instructional FTE are warranted if the department is to continue to expand its curriculum, increase student numbers and student credit hours generated, and enhance its scholarly activities and research productivity. The program easily exceeds the BOR standards for numbers of majors, degrees conferred, faculty with terminal degrees, and average ACT composite score of students.

7. Hours Required for Degree Completion = 126