

## Animal Sciences and Agricultural Education

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### **ASCI 61. Dairy Cattle Production (3 units)**

Prerequisite: ASCI 1 (may be taken concurrently). Principles and practices of milking, feeding, breeding, evaluating, housing, health, behavior, and management of dairy cattle. (2 lecture, 3 lab hours)

### **ASCI 68. Pre-Vet Orientation (1 unit)**

Detailed information for students preparing for veterinary school including course requirements, admission policies, application procedures, interview sessions, and career opportunities in vet medicine.

### **ASCI 71. Meat Science (3 units)**

Prerequisite: ASCI 1 (may be taken concurrently). Basic meats course covering topics from harvest to consumption. Discussion of meat quality versus quantity, general food safety, and meat preparation. Lab will demonstrate all aspects of modern meat industry practices including harvest, fabrication, and further processing. (2 lecture, 3 lab hours)

### **ASCI 81. Introduction to Livestock, Meat, and Dairy Evaluation (3 units)**

Introductory course in evaluating livestock, meat, and dairy cattle. Utilizes visual and performance data in establishing the economic value of animals representing the beef, sheep, swine, dairy, and horse industries. (2 lecture, 3 lab hours)

### **ASCI 91. Poultry Production (3 units)**

Prerequisite: ASCI 1 (may be taken concurrently). Management principles and practices of commercial poultry production. Nutrition, reproduction, environmental management, health, and processing of broilers and layers. (2 lecture, 3 lab hours)

### **ASCI 121. Advanced Beef Management (3 units)**

Prerequisite: ASCI 21. Prevailing and alternative management systems and techniques of beef production in the United States and California including economic analysis. (2 lecture, 3 lab hours)

### **ASCI 131. Advanced Swine Management (3 units)**

Prerequisite: ASCI 31. A comprehensive study of the swine industry. Laboratory exercises designed to improve the management decision ability of students. (2 lecture, 3 lab hours; field trips)

### **ASCI 151. Advanced Horse Management (3 units)**

Prerequisite: ASCI 51. Advanced principles of horse management, reproduction, breeding systems, nutrition, facilities, business aspects, exercise physiology, training colts. (2 lecture, 3 lab hours)

### **ASCI 152. Equine Nutrition (3 units)**

Prerequisite: ASCI 51. Principles of equine nutrition; digestive anatomy and physiology nutrient requirements; feed formulation, nutritional management, and diseases.

### **ASCI 153. Stable Management (3 units)**

Prerequisite: ASCI 51. An overview of horse farm and stable management theories and applications. The impact of management practices on the animal, on the environment, and on economic viability is considered. (2 lecture, 3 lab hours)

### **ASCI 161. Advanced Dairy Farm Management (3 units)**

Prerequisite: ASCI 61. A comprehensive study of dairy industry management strategies and practices. Exercises involve recognition of problems and recommendation of solutions associated with managing commercial dairy operations. (2 lecture, 3 lab hours; field trips)

### **ASCI 162. Dairy and Meat Systems Management (3 units)**

Prerequisite: ASCI 61 or 71. A comprehensive study of technological systems employed in commercial dairies and meat processing facilities. Exercises involve analysis of systems for application in various facilities and evaluation of dairy and meat plant sanitation systems, HACCP, and production/processing systems. Control of food specific pathogens and their impact on the animal, on food safety, on public health, and on environment. Economic viability is considered. (2 lecture, 3 lab hours)

### **ASCI 164. Advanced Commercial Dairy Management Evaluation (2; max total 4 units)**

Detailed analysis of dairy management. Procedures and methodologies in assessing dairy management productivity and profitability. Actual dairy assessment is emphasized. (Formerly ASCI 185T)

### **ASCI 171. Advanced Meat Science (3 units)**

Prerequisite: ASCI 11 or 71. Basic advanced meats course that covers comprehensive study of the conversion of muscle to meat and factors that affect meat quality. Topics include muscle structure and function and muscle anatomy. Laboratory exercises involve hands-on techniques of harvest, fabrication, and further processing of various products from the major species of production livestock. (2 lecture, 3 lab hours)

### **ASCI 172. Meat Technology (3 units)**

Comprehensive study of meat science topics. Emphasis placed on food safety systems including HACCP and current product development efforts in the meats industry. Laboratory exercises are designed to improve student application of HACCP principles

and to strengthen understanding of the vast array of new and innovative products on the market. (2 lecture, 3 lab hours)

## ***Special Topics and Industry Relations (ASCI)***

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### **ASCI 83. Issues and Opportunities in Animal Sciences (2; max total 4 units)**

Prerequisite: ASCI 1. Invited speakers provide insight on current industry issues. Comprehensive study of career opportunities available in animal science. Field experience is offered in specific areas. (Formerly ASCI 183)

### **ASCI 94. Agri Internship (1-6; max total 6 units)**

Prerequisite: minimum GPA of 2.0 and instructor approval. Emphasis on acquisition through experience of practical animal production skill integrated with basic principles acquired in the classroom. This course is for on-campus internships at animal science related units only. *CR/NC* grading only.

### **ASCI 180. Undergraduate Research (1-4; max total 4 units)**

Open to juniors and seniors. Exploratory work on a suitable agricultural problem in animal science. Approved for *RP* grading.

### **ASCI 181. Advanced Livestock, Meat, and Dairy Evaluation (3; max total 6 units)**

Prerequisite: ASCI 11 or 81 or permission of instructor. Detailed analysis of animal form related to functional efficiency, economic value, and sound livestock production management. Written and oral defense of judgments (dairy, horse, livestock, meats). (2 lecture, 3 lab hours; field trips)

### **ASCI 182. Livestock Marketing and Show Management (1-2; max total 4 units)**

Development of skills in the organization, administration, and operation of livestock activities at a district fair level. Emphasis on practical application of skills. Approved for *RP* grading. (2 lab hours per unit)

### **ASCI 185T. Topics in Animal Science (1-4; max total 4 per discipline if no topic repeated)**

Prerequisites: junior standing and permission of instructor. Anatomy, physiology, pathology, nutrition, genetics, livestock management. Topics may require labs.

### **ASCI 186. Animal Science Seminar (1 unit)**

Prerequisite: senior standing or permission of instructor; 12 upper-division units in the major. Latest developments in research; assigned papers in animal science to be presented in both oral and written form.