

POSC - POULTRY SCIENCE (POSC)

POSC 201 General Avian Science

Credits 3. 3 Lecture Hours. Introduction to the poultry industry to include past, present and future industry dynamics; avian anatomy/physiology as they impact commercial production; management principles and practices of breeding, incubation, brooding, nutrition, disease control and marketing technology.

POSC 285 Directed Studies

Credits 1 to 4. 1 to 4 Other Hours. Directed studies in specific problem areas of poultry science. **Prerequisite:** Approval of instructor.

POSC 289 Special Topics in...

Credits 1 to 4. 1 to 4 Lecture Hours. Selected topics in an identified area of poultry science. May be repeated for credit. **Prerequisite:** Approval of instructor.

POSC 291 Research

Credits 1 to 2. 1 to 2 Other Hours. Research conducted under the direction of faculty member in poultry science. May be repeated 2 times for credit. **Prerequisites:** Freshman or sophomore classification and approval of instructor and department head.

POSC 302 Avian Science Laboratory

Credit 1. 2 Lab Hours. Field trips and application of basic skills in production of poultry meat and eggs. Recommended supplement to POSC 201. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 304 Judging

Credits 3. 6 Other Hours. Intensive, individualized training in selection standards for meat and egg strains of poultry, grading standards for egg and live and ready-to-cook poultry, and organizing and managing poultry shows; practice requires visits to processing plants. May be repeated for credit. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 308 Avian Anatomy and Physiology

Credits 3. 2 Lecture Hours. 3 Lab Hours. Anatomy and physiology of the major body systems of the bird, including the cardiovascular, gastrointestinal, respiratory, endocrine and reproductive systems; influence of the environment on bird physiology, including effects of stress. Laboratory exercises include dissection and microscopic analysis of the major body system and assessment of environmental conditions. **Prerequisites:** BIOL 111; POSC 201; junior or senior classification or approval of instructor.

POSC 309 Poultry Meat Production

Credits 4. 3 Lecture Hours. 2 Lab Hours. Modern integrated broiler and turkey production; housing and equipment, nutrition, flock health, pest control, grower relations, marketing and financial management; lab involves blood testing, growth trials, posting birds, processing, and observation of a local integrated poultry operation. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 313 Game Birds and Ornamental Fowl

Credits 3. 3 Lecture Hours. Commercial game bird production; nutrition, incubation, rearing, breeder care, diseases, marketing, housing requirements and economic considerations; management of rare and ornamental fowl. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 319 Breeder and Hatchery Management

Credits 3. 2 Lecture Hours. 2 Lab Hours. Housing and equipment, incubation technology, embryology, nutrition and flock health; lab involves hatchery management, blood testing, semen evaluation, artificial insemination, basic embryology and observation of a local hatchery. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 326 Commercial Egg Industry

Credits 3. 3 Lecture Hours. Production, management, marketing, economics and integration of commercial laying hen operations. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 333 Instincts and Behavior

Credits 3. 3 Lecture Hours. Investigation of the reasoning behind evolved reproductive strategies with integration of veterinary and avian science perspectives; examination of individual differences in behavior and their development in particular environments. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 381 Investigation of Professional Development in Poultry Science

Credits 2. 2 Other Hours. An investigation of career options and the research process as applied to poultry science. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 405 Egg and Poultry Meat Processing

Credits 3. 3 Lecture Hours. Principles of egg and poultry meat processing, understanding egg and poultry meat markets, egg and meat grading, product safety, packaging and consumer acceptance of shell eggs and poultry meat, specifically turkey and broilers. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 406 Poultry Further Processing

Credits 4. 3 Lecture Hours. 2 Lab Hours. Science and practice of value-added products; physical, chemical, microbiological and functional characteristics of value-added poultry products as they affect consumer acceptance, efficiency of production and regulatory approval. **Prerequisites:** CHEM 222; DASC 326 or FSTC 326/ANSC 326; POSC 309; POSC 405; junior or senior classification or approval of instructor.

POSC 411 Poultry Nutrition

Credits 3. 3 Lecture Hours. Principles of poultry nutrition with emphasis on all major nutrient classes and their relationships with the avian digestive system. **Prerequisites:** CHEM 222 or equivalent; junior or senior classification or approval of instructor.

POSC 412 Poultry Feed Formulation

Credit 1. 1 Lecture Hour. Practical feeding of poultry with emphasis on specific nutrient requirements of various species and computer least cost diet formulations. **Prerequisites:** POSC 411; junior or senior classification or approval of instructor.

POSC 414 Avian Genetics and Breeding

Credits 3. 2 Lecture Hours. 2 Lab Hours. Basic concepts of avian genetics and breeding principles, inheritance of economically important qualitative and quantitative traits; statistical analysis of breeding results; application of molecular genetics, mating systems analyses, breeder management; and incubation of hatching eggs. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 427 Animal Waste Management

Credits 3. 3 Lecture Hours. An applied approach to current and emerging issues relating to responsible management of animal waste; the role of biological aspects of production management decisions evaluated in an examination of regulatory and environmental requirements; current case studies and exposure to field situations. Field trips may be required for which departmental fees may be assessed. **Prerequisite:** Junior or senior classification or approval of instructor.

POSC 429 Advanced Food Bacteriology

Credits 4. 3 Lecture Hours. 2 Lab Hours. Microbiology of foodborne human pathogens of food animals, raw and processed food, and human disease; methods to control incidence of pre- and post-harvest contamination. **Prerequisites:** DASC 326 or FSTC 326/ANSC 326 or BIOL 351 or VTPB 405; junior or senior classification.

POSC 444 International Poultry Production

Credits 3. 3 Lecture Hours. Two-week intensive and comparative on-site study of international poultry production; rearing and husbandry, housing and equipment, nutrition, flock health and processing. **Prerequisite:** Junior or senior classification.

POSC 454 Animal Welfare

Credits 3. 3 Lecture Hours. Issues from an animal's perspective; opportunities to study the general questions that typically affect the welfare of an animal; insight to practices that can be used to improve the welfare of an animal. **Prerequisite:** Junior or senior classification.

POSC 481 Poultry Science Systems

Credits 2. 1 Lecture Hour. 2 Lab Hours. Individual and team approaches for the collection, interpretation, synthesis and presentation of information on integration of all aspects of the poultry industry to address issues facing it; emphasis on oral and written communication. **Prerequisite:** Senior classification.

POSC 484 Internship

Credits 0 to 5. 0 to 5 Other Hours. A supervised internship in the poultry industry to provide practical experience in a real world setting that is consistent with the student's professional interests. **Prerequisites:** Junior or senior classification and approval of department head.

POSC 485 Directed Studies

Credits 1 to 4. 1 to 4 Other Hours. Directed study of selected problems not covered by other courses in the department. Content of course will be adapted to interest and needs of students. **Prerequisites:** Junior or senior classification and approval of instructor.

POSC 489 Special Topics in...

Credits 1 to 4. 1 to 4 Lecture Hours. Selected topics in an identified area of poultry science. May be repeated for credit. **Prerequisites:** Junior or senior classification and approval of instructor.

POSC 491 Research

Credits 0 to 4. 0 to 4 Other Hours. Research conducted under the direction of faculty member in poultry science. May be repeated 3 times for credit. Registration in multiple sections of this course are possible within a given semester provided that the per semester credit hour limit is not exceeded. **Prerequisites:** Junior or senior classification and approval of instructor and department head.