Department of Poultry Science

Students within the Department of Poultry Science learn about the food system from poultry production on the farm through processing and food safety to the manufacturing of poultry products for the consumer. The department houses the B.S. degree in poultry science, where two curriculum options are available. The traditional poultry production option prepares students to enter and advance within the poultry industry. The poultry science/pre-veterinary medicine option prepares students for professional schools (e.g., veterinary medicine, pharmacy, dental, or medical school). Enrollment in an internship, usually during the summer, is required for the B.S. degree in poultry science.

Majors

- Poultry Science — Production Option (http://bulletin.auburn.edu/undergraduate/collegeofagriculture/poultrysciencepoul/poultryscience_poultryproductionoption_major/)
- Poultry Science — Pre-Veterinary Medicine Option (http://bulletin.auburn.edu/undergraduate/collegeofagriculture/poultrysciencepoul/poultryscience_pre-veterinarymedicineoption_major/)

Minors

- Poultry Science (http://bulletin.auburn.edu/undergraduate/collegeofagriculture/poultrysciencepoul/poultryscience_minor/)

Food Science Courses

FDSC 1000 INTRODUCTORY FOOD SCIENCE (3) LEC. 3. Overview of food science discipline including food selection, food composition, food safety and sanitation, food processing, packaging, commodity types, and food laws.

FDSC 4290 PROFESSIONAL DEVELOPMENT IN FOOD SCIENCE (1) LEC. 1. Preparing for careers; enhancing computer and communication skills; planning for professional advancement.

FDSC 4920 FOOD SCIENCE INTERNSHIP (3) INT. 3. Departmental approval. Practical on-the-job training in the food industry. Course may be repeated for a maximum of 9 credit hours.

FDSC 4960 SPECIAL PROBLEMS IN FOOD SCIENCE (1-3) IND. 2.50 GPA or departmental approval. Individual or group projects with a faculty member in food science. May include literary research, data analysis or a combination of these. Course may be repeated for a maximum of 6 credit hours.

FDSC 4970 SPECIAL TOPICS (1-4) LEC. Departmental approval. Instruction and discussion of current topics associated with food science. Course may be repeated for 8 hours. Course may be repeated for a maximum of 8 credit hours.

FDSC 4980 UNDERGRADUATE RESEARCH (2-4) IND. Departmental approval. Directed research in the area of specialty within the department. Course may be repeated for a maximum of 4 credit hours.

FDSC 5660 FOOD MICROBIOLOGY (4) LEC. 3. LAB. 1. Pr. BIOL 3200. Introduction to basic and applied microbiology in food; including how bacteria, viruses, parasites, yeasts and molds affect and are in turn affected by foods both positively and negatively. May count either FDSC 5660, BIOL 5660, FDSC 6660 or BIOL 6660.

FDSC 6660 FOOD MICROBIOLOGY (4) LEC. 3. LAB. 1. Pr. BIOL 3200. Introduction to basic and applied microbiology in food; including how bacteria, viruses, parasites, yeasts and molds affect and are in turn affected by foods both positively and negatively. May count either FDSC 5660, BIOL 5660, FDSC 6660 or BIOL 6660.

FDSC 7430 FLAVOR CHEMISTRY (3) LEC. 3. Chemistry of flavor compounds; Analytical approaches and sensory evaluation to characterize flavor.

FDSC 7600 MOLECULAR PATHOGENESIS OF FOODBORNE PATHOGENS (3) LEC. 3. Pr. BIOL 6260 or VBMS 7460. This course covers a detailed description of major foodborne pathogens that affect human health and their pathogenesis. Lectures will detail how the pathogen's adherence and invasion, host dissemination, and host cell damage lead to pathogenesis.

FDSC 7730 SENSORY EVALUATION (3) LEC. 2. LAB. 2. History and methods of sensory testing of food products, factors affecting results.

FDSC 7950 GRADUATE SEMINAR (1) SEM. 1. Literature in poultry science, food science or related field. Emphasis given to preparation, organization, and presentation of research materials and to reporting current literature in the field. May count either POUL 7950 or FDSC 7950. Course may be repeated for a maximum of 3 credit hours.

FDSC 7960 SPECIAL PROBLEMS (1-4) IND/ST1. Departmental approval. Critical analysis of classic and current research. Course may be repeated for a maximum of 8 credit hours.

FDSC 7970 SPECIAL TOPICS IN FOOD SCIENCE (1-4) LEC. Instruction and discussion of current advanced topics associated with food science. Course may be repeated for a maximum of 8 credit hours.

FDSC 7980 NONTHESIS RESEARCH (1-4) RES. Departmental approval. enrolled as FDSG MAg student. Research conducted as part of the Master of Agriculture degree.

FDSC 7990 RESEARCH AND THESIS (1-10) MST. Departmental approval. Research in an area of specialization. Course may be repeated with change in topic.

FDSC 8990 RESEARCH AND DISSERTATION (1-10) DSR. Departmental approval. Research in an area of specialization. Course may be repeated with change in topic.

Poultry Science Courses

POUL 1000 INTRODUCTORY POULTRY SCIENCE (3) LEC. 2. LAB. 2. Introduction to the poultry species and their commercial production, physiology, nutrition and management. Fall.

POUL 2000 POULTRY AND EGG EVALUATION AND SELECTION (1) LAB. 1. A hands-on approach to poultry and egg evaluation based on the U.S. poultry and Egg guidelines and how to properly care for and handle the birds. Spring and Fall. Course may be repeated for a maximum of 4 credit hours.

POUL 2100 PROFESSIONAL DEVELOPMENT FOR ANIMAL AGRICULTURE, PRODUCTION, PROCESSING & FEED INDUSTRIES (1) LEC. 1. Development of professional skills and career preparation for students in animal agriculture.

POUL 3030 COMMERCIAL POULTRY PRODUCTION (4) LEC. 3. LAB. 3. The organization and management principles of the commercial poultry meat and egg production industries. Fall.

POUL 3060 POULTRY REPRODUCTION (3) LEC. 2. LAB. 2. Pr. POUL 3030. This course explores the reproductive physiology and endocrinology of poultry species, emphasizing genetics and management strategies impacting production, fertility, and hatchability in the industry. Students will also learn hatchery management and embryonic development of the chick.

POUL 3150 POULTRY PHYSIOLOGY (4) LEC. 3. LAB. 3. The physiological principles and anatomical characteristics of poultry species which directly interact with commercial management systems. Spring.

POUL 4920 POULTRY SCIENCE INTERNSHIP (3) INT. 3. Departmental approval. Practical on-the-job training in the poultry industry. Course may be repeated for a maximum of 9 credit hours.

POUL 4960 SPECIAL PROBLEMS IN POULTRY SCIENCE (1-3) IND. 2.5 GPA or departmental approval. Individual or group projects with a faculty member in poultry science. May include literary research, data analysis or a combination of these. Course may be repeated for a maximum of 6 credit hours.

POUL 4970 SPECIAL TOPICS IN POULTRY SCIENCE (1-4) LEC. Departmental approval. Instruction and discussion of selected current topics in poultry science. Course may be repeated for 8 hours. Course may be repeated for a maximum of 8 credit hours.

POUL 4980 UNDERGRADUATE RESEARCH (2-4) IND. Departmental approval. Directed research in the area of specialty within the department. Course may be repeated for a maximum of 4 credit hours.

POUL 5020 PRINCIPLES OF ANIMAL FEED MANUFACTURING (3) LEC. 2. LAB. 2. Principles of animal food manufacturing for cattle, swine, poultry, horses, aquaculture, and pet foods with emphasis on current animal food manufacturing practices, current animal food ingredient manufacturing, and current animal food regulatory landscapes. May count either POUL 6020 or POUL 5020.

POUL 5030 ADVANCED COMMERCIAL POULTRY PRODUCTION (3) LEC. 3. Pr. POUL 3030 and POUL 3150 and POUL 5050 and POUL 5110. The course covers the major principles of the integrated poultry industry, including the interactions and interrelationships between business segments in the poultry industry.

POUL 5050 POULTRY FEEDING (3) LEC. 3. Pr. ANSC 3410. The application of the principles of nutrition to poultry; the functions of individual nutrients, their deficiency symptoms and their supply in terms of feedstuffs and practical poultry diets. May count either POUL 5050 and POUL 6050.

POUL 5070 ANIMAL WELFARE (3) LEC. 3. Pr. (POUL 1000 or ANSC 1000) and (POUL 3150 or ANSC 3600). This course covers the key principles and application of animal welfare, and concepts will be applied to livestock, companion animals, wildlife, animals in research, and animals in entertainment. May count either POUL/ANSC 5070 or POUL/ANSC 6070.

POUL 5080 POULTRY HEALTH (3) LEC. 3. Pr. BIOL 3200 and POUL 3150. Study of the prevention, diagnosis, control and treatment of economically important diseases of poultry. May count either POUL 5080 or POUL 6080.

POUL 5110 POULTRY PROCESSING (3) LEC. 2. LAB. 3. Pr. POUL 3030 and (CHEM 1110 or CHEM 1030). The course focuses on poultry processing and related aspects. Students will learn the effects of live production, feed withdrawal and haul on poultry processing and quality as well as pre- and post-harvest food safety, USDA regulations, Halal and Kosher standards. May count either POUL 5110 or POUL 6110.

POUL 5140 POULTRY FURTHER PROCESSING AND PRODUCTS (3) LEC. 2. LAB. 3. Pr. CHEM 1110 or CHEM 1030. The course will provide an in-depth understanding of poultry product development, principles and practices, biochemistry, modern technologies used to assess product quality, sensory analysis, food safety as well as USDA regulations associated with poultry products. May count either POUL 5140 or POUL 6140.

POUL 5160 PRINCIPLES OF FOOD SAFETY (3) LEC. 2. LAB. 3. Pr. BIOL 3200. Identification and control of foodborne hazards in foods of animal origin. Introduction to Hazard Analysis and Critical Control Points. May count either POUL 5160 or POUL 6160.

POUL 6020 PRINCIPLES OF ANIMAL FEED MANUFACTURING (3) LEC. 2. LAB. 2. Principles of animal food manufacturing for cattle, swine, poultry, horses, aquaculture, and pet foods with emphasis on current animal food manufacturing practices, current animal food ingredient manufacturing, and current animal food regulatory landscapes. May count either POUL 5020 or POUL 6020.

POUL 6030 ADVANCED COMMERCIAL POULTRY PRODUCTION (3) LEC. 3. The course covers the major principles of the integrated poultry industry, including the interactions and interrelationships between business segments in the poultry industry. Graduate student standing.

POUL 6050 ADVANCED POULTRY FEEDING (3) LEC. 3. An advanced study and review of the literature on the application of the principles of nutrition to poultry; the functions of individual nutrients, their deficiency symptoms and their supply in terms of feedstuffs and practical poultry diets. May count either POUL 5050 or POUL 6050.

POUL 6070 ANIMAL WELFARE (3) LEC. 3. This course covers the key principles and application of animal welfare, and concepts will be applied to livestock, companion animals, wildlife, animals in research, and animals in entertainment. May count either POUL/ANSC 5070 or POUL/ANSC 6070.

POUL 6080 ADVANCED POULTRY HEALTH (3) LEC. 3. Departmental approval. An advanced study of the prevention, diagnosis, control and treatment of economically important diseases of poultry. May count either POUL 5080 or POUL 6080.

POUL 6110 POULTRY PROCESSING (3) LEC. 2. LAB. 3. Students will acquire strong knowledge on each step of poultry processing from hanging to chilling and transportation. The course will cover topics on food safety (pre- and post-harvest), spoilage, antimicrobial interventions, USDA regulations as well as Halal and Kosher standards. May count either POUL 5110 or POUL 6110.

POUL 6140 POULTRY FURTHER PROCESSING AND PRODUCTS (3) LEC. 2. LAB. 3. The course will provide an in-depth understanding of poultry product development, principles and practices, biochemistry, modern technologies used to assess product quality, sensory analysis, food safety as well as USDA regulations associated with poultry products. May count either POUL 5140 or POUL 6140.

POUL 6160 ADVANCED PRINCIPLES OF FOOD SAFETY (3) LEC. 2. LAB. 3. Departmental approval. An advanced study and literature review of the identification and control of foodborne hazards in foods of animal origin. Introduction to Hazard Analysis and Critical Control Points. May count either POUL 5160 or POUL 6160.

POUL 7100 SUPERVISED INVESTIGATION (1-4) IND. Departmental approval. Advanced independent investigation in major field of poultry or avian science. Requirements include review of literature, successful and timely completion of research project, and presentation of results in written and/or oral report. Course may be repeated for a maximum of 8 credit hours.

POUL 7950 GRADUATE SEMINAR (1) SEM. 1. Literature in poultry science, food science or related field. Emphasis given to preparation, organization, and presentation of research materials and to reporting current literature in the field. May count either FDSC 7950 or POUL 7950. Course may be repeated for a maximum of 3 credit hours.

POUL 7960 SPECIAL PROBLEMS IN POULTRY SCIENCE (1-3) IND. Critical analysis of classic and current research in poultry science, including literary research and/or data analysis. Course may be repeated for a maximum of 6 credit hours.

POUL 7970 SPECIAL TOPICS IN POULTRY SCIENCE (1-4) LEC. Instruction and discussion of current advanced topics associated with poultry science. Course may be repeated for a maximum of 8 credit hours.

POUL 7980 NON-THESIS RESEARCH (1-4) RES. Departmental approval. enrolled as POUL MAg student. Research conducted as part of the Master of Agricultural degree.

POUL 7990 RESEARCH AND THESIS (1-10) MST. Technical laboratory problems related to poultry. Course may be repeated with change in topics.

POUL 8100 GI SYSTEMS AND NUTRIENT UTILIZATION (3) LEC. 3. Pr. POUL 5050. Structure of feedstuffs and strategy in nutrient recovery from the gastrointestinal systems of fowl, swine, and ruminants.

POUL 8960 SPECIAL PROBLEMS (1-4) IND. A) Nutrition, B) Physiology, C) Health, D) Microbiology, E) Processing, F) Product Safety and Quality, G) Teaching, H) Immunonutrition. Course may be repeated with change in topic. Departmental approval.

POUL 8990 RESEARCH AND DISSERTATION (1-10) DSR. Technical laboratory problems related to poultry. Course may be repeated with change in topics.