

Undergraduate Certificate in Poultry Production Management

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Summary and Implications

Iowa State University (ISU) offers undergraduate certificates to allow students to customize their curriculum and demonstrate completion of focused study in a specialized area across a variety of disciplines. The Poultry Production Management Certificate is offered within the Animal Science Department at ISU and integrates technical topics in animal science with practical considerations in enterprise management. Certificate requirements, including a faculty-approved internship, are organized to correspond with needs defined by faculty and employers for a successful transition from student to poultry industry professional.

Students who complete the certificate will have the baseline background knowledge to identify and address challenges in modern poultry production enterprises. Further, the certificate assists employers to identify students that have shown the interest, discipline, and ability to complete this specialized study program.

Introduction

Iowa is first in egg-laying hen population and egg production, a top 10 turkey producer, and a top 5 turkey processor. This makes Iowa a national leader in the poultry industry. As such, many types of significant poultry corporations are headquartered in Iowa including layer and meat bird genetic companies and hatcheries, several integrated shell and liquid egg layer operations, allied industry, two major turkey processing facilities and over 130 turkey producers. In addition to laying hens and turkeys, Iowa also produces broilers and specialty poultry, including capons and game birds. Therefore, it is not surprising that there is a consistently growing need to develop a workforce with technical and enterprise management skills that are unique to the poultry industry. This workforce demand creates a pressing need to establish

modern curriculum options for students to develop these skills and document completion of a specialized curriculum to employers.

The ISU Poultry Production Management Certificate will encompass the aspects of the layer, broiler, and turkey industry from hatchery through processing, including recruitment of individuals to the poultry industry through exposure to the industry and opportunities that will serve to address employment short-falls.

Approach

The objective was to develop a poultry production management course of study within the requirements of an undergraduate certificate. Students that complete the certificate will be able to:

- a. Demonstrate a breadth of understanding of nutrition, physiology, and breeding applications in contemporary poultry production systems.
- b. Evaluate production systems and provide solutions to ensure the efficient production of safe, high-quality poultry and egg products.
- c. Recognize challenges to environmental sustainability in poultry production systems.
- d. Demonstrate competence in hands-on and practical applications in their field.
- e. Integrate technical knowledge with enterprise management to ensure profitable and sustainable poultry production management.
- f. Demonstrate the development of the knowledge, skills, and abilities necessary for a poultry production management career.

Requirements of the Poultry Production Management Certificate

The Poultry Production Management Certificate program prompts the student to customize their certificate with specific scientific disciplines and production practices. This 24-credit certificate provides the appropriate background and context for students to develop their poultry production and management expertise.

The certificate requirements are organized to correspond with needs defined by faculty and employers for a successful transition from student to poultry industry professional. Successful certificate completion requires a minimum of 18 credits at the 300 (junior) or 400 (senior) level. The program integrates poultry production principles with foundation disciplines in animal science. All courses in the certificate are available and full descriptions are

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available in the Iowa State University Catalog (<https://catalog.iastate.edu>).

The certificate requires completion of courses within the following categories: Foundation (3 credits), Fundamental Disciplines (9 credits), Expertise Expansion (3 credits from a menu), Management (3 credits from a menu), and Poultry Production Emphasis (6 credits). Six course offerings (AN S 373A, AN S 373B, AN S 373C, AN S 373D, ANS 473A, and AN S 473B) are part of the Midwest Poultry Consortium Center of Excellence Courses. Students enrolled in the certificate program are eligible to complete these courses. Per ISU policy, nine credits will be unique to the certificate and will not be applied to a major, minor, or another certificate.

Availability of the Poultry Production Management Certificate

The Poultry Production Management Certificate has been approved by the Department of Animal Science Curriculum Committee, the College of Agriculture and Life Sciences College Curriculum committee, and the Faculty Senate. Therefore, the Poultry Production Management Certificate will be available to ISU undergraduate students beginning in the fall of 2021.

POULTRY PRODUCTION MANAGEMENT CERTIFICATE (24 CREDITS)

Foundation Course (3 credits)		Credits
ANS 223	Poultry Science	3
Fundamental Disciplines (9 credits)		
AN S 320	Animal Feeds and Feeding	3
AN S 331	Domestic Animal Reproduction	3
AN S 352	Genetic Improvement of Domestic Animals	3
Expertise Expansion (3 Credits)		
AN S 336	Domestic Animal Behavior and Well-Being	3
AN S 345	Growth and Development of Domestic Animals	3
AN S 360	Fresh Meats	3
AN S 373A	Poultry Products	3
AN S 373B	Poultry Physiology	3
AN S 373C	Avian Health	3
AN S 373D	Poultry Nutrition	3
TSM 327	Animal Production Systems	3
TSM 455	Feed Processing and Technology	3
TSM 457	Feed Safety, Ingredient Quality and Analytics	3
VDPAM 487	Livestock Disease Prevention	3
Enterprise Management (3 credits)		
AGEDS 451	Agricultural Law	3
ECON 230	Farm Business Management	3
ECON 235	Introduction to Agricultural Markets	3
ECON 332	Cooperatives	3
ECON 334	Entrepreneurship in Agriculture	3
Poultry Production Emphasis (6 credits to include 399 and choice of 473A or 473B)		
AN S 399	Poultry Internship Experience	3
AN S 473A	Poultry Enterprise Management	3
AN S 473B	Poultry Breeder Flock Management	3