

Fall 2020

ANSC 424

Pet Food and Feed Manufacturing

Instructor:



Dr. Maria R. C. de Godoy
Assistant Professor
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Course Overview:

This is a fast-paced 8-week online course which integrates principles of companion animal nutrition with various aspects pertaining to pet food manufacturing. Topics discussed in this course include processing technologies (e.g., extrusion, retorting, baking) involved in the manufacturing of pet foods, principles of diet formulation and nutritional guidelines, and an overview of labeling regulations, and good manufacturing practices. This course includes demonstrative videos of various process and focuses on applied and active learning.



Course Goals and Objectives:

This course is designed for senior undergraduate, entry level graduate students, and professionals in the field of pet nutrition and industry who are interested in integrating knowledge of various aspects pertaining to pet food and feed manufacturing and animal nutritional concepts and requirements. As such, this course will focus on upper categories of the significant learning and Bloom's taxonomies. This teaching approach will challenge students to use their prior foundational knowledge and to evaluate potential biases about topics discussed, to foster the application of interdisciplinary skills and to further inquire about the subject of discussion, and to critically appraise information from the literature.

Course Modules and Learning Goals:

By the end of this course, you will be able to:

- Understand and apply various concepts pertaining to pet food manufacturing.
- Demonstrate good understanding of various food processes and explain the main purpose and critical points of each process.
- Examine different scenarios related to different food processes, regulatory affairs and other topics discussed and develop viable and scientifically sound solutions.
- Demonstrate ability to interleave the concepts and materials taught in this course to critically evaluate and appraise information and apply it using real world examples.
- Feel more educated on topics discussed and develop new interests pertaining to the field and related subjects.

Modules 1 – 4:



Welcome & Career Opportunities

Maria R. C. de Godoy, Ph.D.
Assistant Professor of Companion Animal and Comparative Nutrition
Department of Animal Sciences and Division of Nutritional Sciences



Following Rules: The Importance of Compliance

Maria R. C. de Godoy, Ph.D.
Assistant Professor of Companion Animal and Comparative Nutrition
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The ABC of Pet Food Manufacturing

Maria R. C. de Godoy, Ph.D.
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Processing to Do or Not to Do: A Case for Raw and Minimally Processed Foods

Maria R. C. de Godoy, Ph.D.
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Modules 5 – 8:



Extrusion: A Versatile Process in Pet Food Manufacturing

Maria R. C. de Godoy, Ph.D.
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Who Canned the Tuna? Principles of Retort Systems

Maria R. C. de Godoy, Ph.D.
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Baking: Basic Concepts and Applications

Maria R. C. de Godoy, Ph.D.
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Packaging Technology

Maria R. C. de Godoy, Ph.D.
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Overview Course Activities

The “**Getting to know you**” assignment provides an opportunity for students to introduce themselves and build an online community during this course. More detailed guidelines are provided on Compass, including a few tips of how to complete this assignment. This will be worth 10 extra points

Weekly Overviews

Each module will begin with the module overview, which will explain what the module is about, what learning goals you are expected to achieve, how long the module will take, and in what activities you will participate. Each module is designed with the same structure and activities unless otherwise specified. The module activities are explained in greater detail below. You can find the due dates of specific assignments on each week's Overview page.

Readings and Lessons

Each module will contain a list of lessons (recorded lectures) and assigned readings. In some cases, optional or supplemental readings may be listed for further study. Lessons cover major topics from the readings but do not necessarily include all important information from the readings.

Quizzes

Each module, each student will answer questions about the material covered in the week. Some modules have 2 quizzes, one per each lesson, and some modules have only 1 quiz. A student is allowed 15 minutes to complete the quiz. Each quiz is worth 20 points. The maximum points that can be earned is 200 points for this activity.

Exams

There will be two exams. Both exams will be comprised of multiple-choice, matching, true/false, and short answer type questions, and will be worth 100 points each. The first exam will cover lecture material from modules 1 through 4, and the second exam will cover modules 5 through 8.

Weekly Live Discussion

Every Thursday evening from 7 to 9 pm CT, **weekly live discussion sessions** via Zoom will be held. Dr. Maria Godoy will be available during this time to answer questions pertaining to the course material.

Course Grading

Grade Scale:

A:	> 90%
B:	80-89.9%
C:	70-79.9%
D:	60-69.9%
F:	< 60%

The proportion of student's points earned in relation to total points will be translated to the grade scale to the left.

Note: Students with special needs should notify the instructors during the first week of class, so adjustments can be made early in the semester.

All requests for reasonable accommodations should be directed to the Disability Resources and Educational Services (DRES) Student Services Office (via phone: 217-333-1970; email: disability@illinois.edu; or website: www.disability.illinois.edu/).

Additional University Policies

University Policy on Academic Integrity: The University of Illinois at Urbana-Champaign Student Code should be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>.

Family Educational Rights and Privacy Act (FERPA): Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See <http://registrar.illinois.edu/ferpa> for more information on FERPA.

I-CAN Certificate Program

Additional Courses:

ANSC 422: Companion Animal Nutrition (Fall 2021)

Instructor: Dr. Kelly Swanson

ANSC 526: Advanced Companion Animal Nutrition (Spring 2021)

Instructors: Dr. Maria Godoy and Dr. Kelly Swanson

ANSC 499: Pet Food and Formulation, Regulation, and Market Trends

Instructors: Dr. Maria Godoy and Dr. Kelly Swanson



I ILLINOIS
College of Agricultural, Consumer & Environmental Sciences

Companion Animal Nutrition Certificate

FULLY ONLINE // 3 COURSES // 9 CREDIT HOURS

The Companion Animal Nutrition Certificate program gives industry professionals, veterinarians, animal scientists, pet breeders, and pet enthusiasts the opportunity to take in-depth courses on various aspects of companion animal nutrition. Course topics include canine and feline metabolism, nutrient functions and requirements, pet nutrition and disease, pet food ingredients, principles of diet formulation, pet food processing technologies, good manufacturing practices, pet food regulations, and market trends.



COURSE INSTRUCTOR
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Companion Animal Nutrition
(ANSC 422; 3 credits)

Required for certificate and pre-requisite for ANSC 526. First offered Fall 2019.



Pet Food & Feed Manufacturing
(ANSC 424; 3 credits)

First offered Spring 2020.



Advanced Companion Animal Nutrition
(ANSC 526; 3 credits)

First offered Fall 2020.



Pet Food Formulation, Regulations, and Market Trends
(ANSC 499; 3 credits)

First offered Fall 2020.



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