Spring Semester

ANSC 526 Advanced Companion Animal Nutrition

Instructors:



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Dr. Kelly S. Swanson
Professor
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Course description:

This is a fast-paced 8-week online course in which students will learn how to effectively apply advanced concepts related to pet nutrition and disease, including the metabolism within healthy and diseased dogs and cats, how nutrition may aid in preventing and treating disease, and the science behind use of nutraceutical ingredients in diet formulation and manufacturing. Students will develop critical-thinking and problem-solving skills by applying the concepts taught in this course using real-world scenarios.



Course objectives:

- 1. Understand the importance of obtaining a dietary history and learn how veterinarians apply nutritional assessment guidelines to manage healthy and diseased dogs and cats.
- 2. Understand and apply advanced concepts pertaining to canine and feline metabolism and nutrition, including the role of diet in clinical disease.
- 3. Use evidence-based nutrition and medicine from peer-reviewed literature to effectively design specialized pet food products and/or evaluate pet food labels and claims.
- 4. Effectively evaluate and apply peer-reviewed literature to 'real world' situations.

Course modules and learning goals

- Understand risk factors and pathogenesis of chronic conditions discussed
- Recognize
 physiological and
 metabolic
 alterations due to
 disease status or
 stage
- Become familiar with diagnostic tools and assessment
- Explore goals of dietary strategies to support animals with chronic diseases

Modules 1 – 4: Taught by Dr. Kelly Swanson

Module 1

Interpreting and Critiquing Peer-Reviewed Literature

Essential Nutrients of Dogs and Cats

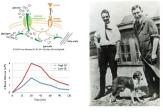
Pet Food Research and Development of Specialized

Diets

Diets

Module 2

Therapeutic Diet Strategies: Diabetes Mellitus

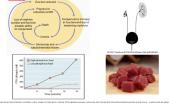


Therapeutic Diet Strategies: Obesity and Metabolic Health

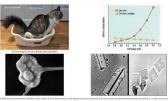


Module 3

Therapeutic Diet Strategies: Chronic Kidney Disease



Therapeutic Diet Strategies: Feline Lower Urinary Tract Diseases



Module 4

Therapeutic Diet Strategies: Gastrointestinal Diseases



Breed-Specific Diet Strategies for Dogs and Cats



Course modules and learning goals

- Define normal physiological processes and organ function during health
- Describe disease etiology, risk factors, and common clinical symptoms
- Understand onset and physiological and (or) morphological processes associated with disease progression
- Discuss treatment options and examine dietary management strategies
- Analyze and appraise current literature on this topic.
- **Appreciate** veterinarian perspective on therapeutic nutrition assessment and guidelines of pet animals

Modules 5 – 8: Taught by Dr. Maria Godoy

Module 5

Mobility and Osteoarthritis



Therapeutic Dietary Strategies: Therapeutic Dietary Strategies: Oral **Health and Periodontal Disease**



Module 6

Skin and Coat Health



Therapeutic Dietary Strategies: Therapeutic Dietary Strategies: Food Allergy



Module 7

Therapeutic Dietary Strategies: Aging



Therapeutic Dietary Strategies: Cognitive Function



Module 8

Therapeutic Nutrition: Veterinary Perspective



Overview Course Activities

Activities	Total points
	15
Get to know you video	10
Weekly quizzes	120
Exams	200
Weekly assignments	165
TOTAL	500

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.

Eight **weekly quizzes** will be given on Compass. Content covered in each quiz is not cumulative – it will only reflect the content of the module being covered that week. Each quiz is worth 15 points.

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 assignments will allow students to critically appraise information and apply concepts learned in this course through evaluation of case-studies or specific scenarios using real-world examples.

Every Wednesday evening from 8 to 10 pm CT, weekly live discussion sessions via Zoom will be held. Drs. Godoy and Swanson will be available during this time to answer questions pertaining to the course material.

Course Grading

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

Grade Scale: A: > 90% B: 80-89.9% C: 70-79.9% D: 60-69.9%

< 60%

F:

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/).

Suggested texts (not required)

- 1. Case, L. P., L. Daristotle, M. G. Hayek, and M. F. Raash. 2011. Canine and feline nutrition, 3rd edition. Mosby, Inc., Maryland Heights, MO.
- 2. Hand, M. S., C. D. Thatcher, R. L. Remillard, P. Roudebush, L. D. Lewis. 2011. Small Animal Clinical Nutrition, 5th edition. Mark Morris Institute, Marceline, MO.
- 3. Fascetti, A. J., and S. J. Delaney. 2012. Applied Veterinary Clinical Nutrition, 1st edition. Wiley-Blackwell, Oxford, UK.

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 Instructor: Dr. Kelly Swanson

ANSC 424: Pet Food and Feed Manufacturing
Instructor: Dr. Maria Godoy

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

Instructors: Dr. Maria Godoy and Dr. Kelly Swanson

