

Animal Nutrition (ABIO 598H) – 3 credits Spring 2009

Instructor:

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Lab: SBDG 219B

Lecture: SBDG 200: MWF 9AM – 9:50AM

Textbook: Principles of Companion Animal Nutrition, JP McNamara

Course Description and Objectives: This specialized course will focus on companion animal nutrition to include exotics but excluding large agricultural mammals. Topics will include: 1) The primary macromolecules, vitamins and minerals required in an animal's diet including how the body uses these molecules in biochemical pathways and specific conditions that arise if there are nutrient deficiencies. 2) The comparative anatomy and physiology of companion animal digestive and metabolic processes; how nutrients are obtained, digested, stored and used. 3) Analysis and comparison of the commercially available feeds including source, additives, supplements, and labeling. 4) Specific nutrient requirements for companion animals of different species and life stages.

Evaluation:

Exams: There will be four lecture exams throughout the semester as noted on the calendar. They will only cover the material given since the previous exam and be worth 100 points each. Expect a combination of multiple-choice, fill in the blank, short answer and essay questions on each exam.

Writing assignment: Your assignment will be to write a research paper on any topic in animal or human nutrition. You will be graded on how thoroughly you research your topic – a minimum of 5 appropriate primary research articles will be required, as well as how well you integrate what you have learned in the course with what you have researched. More information on this assignment will be given soon. 50 points.

Presentations: You will give a very brief (5 minute) summary of your researched topic at the end of the term. This will allow you to share your area of expertise with the class. Everyone must have a unique topic which must be cleared with me early in the semester. 25 points.

Label Analysis Project: To demonstrate a competency in critically assessing the nutritional qualities of commercial pet foods you will be given several labels from pet foods to compare. You will then write a "recommendation" of which food is best taking into consideration the principles learned in lecture. 25 points.

Open Opportunities: There will be many opportunities throughout the semester to do short write-ups or give brief reports on nutritional topics. Point values for each opportunity will vary but you can earn up to 50 points.

Course Calendar:

Date	Lecture Topic
12-Jan	Introduction, life cycles
14-Jan	Carbohydrates
16-Jan	Fats
19-Jan	MLK Day - No Class
21-Jan	Fats
23-Jan	Proteins
26-Jan	Vitamins
28-Jan	Vitamins and Minerals
30-Jan	Minerals
2-Feb	Phytochemicals
4-Feb	EXAM 1
6-Feb	Water
9-Feb	Kidney Physiology I
11-Feb	Kidney Physiology II
13-Feb	Energy needs
16-Feb	Amino acid and nitrogen needs
18-Feb	Digestive Anatomy & Physiology I
20-Feb	Digestive Anatomy & Physiology II
23-Feb	Digestive Anatomy & Physiology III
25-Feb	Exam 2
27-Feb	Metabolism I
2-Mar	Metabolism II
4-Mar	Metabolism III
6-Mar	Preparing food I
9-Mar	Spring Break - No Class
11-Mar	Spring Break - No Class
13-Mar	Spring Break - No Class
16-Mar	Preparing food II
18-Mar	Preparing food III
20-Mar	Diet analysis I
23-Mar	Diet analysis II
25-Mar	Diet analysis III
27-Mar	Exam 3
30-Mar	Dog Nutrition
1-Apr	Dog Nutrition II
3-Apr	Cat & Ferret Nutrition
6-Apr	Horse Nutrition
8-Apr	Horse Nutrition II
10-Apr	Rabbit Nutrition
13-Apr	Rodent Nutrition
15-Apr	Llama and Alpaca Nutrition
17-Apr	Bird Nutrition
20-Apr	Reptile Nutrition
22-Apr	Fish Nutrition
24-Apr	Exam 4
27-Apr	Paper due - Presentations
TBA	Presentations

Grade Breakdown:

Exams: 100 pts each	400 pts
Paper:	50 pts
Short Presentation:	25 pts
Label analysis project:	25 pts
Open opportunities:	50 pts
Total:	550 pts

Grading Scale:

A	495-550
B+	470-494
B	440-469
C+	415-439
C	385-414
D+	360-384
D	330-359
F	Below 330

Additional Comments:

The textbook provided gives a good overview of the subject of companion animal nutrition and much of the material for the first, third and last exams of the semester come from this book. This text lacks content on the anatomy and physiology of the digestive and urinary system and metabolism of nutrients which I think is critical to the understanding of nutrition. Material for this portion of the course comes from several sources (human anatomy and physiology texts, comparative animal anatomy and physiology texts, veterinary texts). Additional material for all of the topics in the course have come from primary journal articles and government reports which are available to you on the web. Feel free to ask me to share the source of any lecture material that you can not find in your textbook.

If you have questions or need help with anything in this course please email me and set up an appointment to meet. I will generally be available every afternoon MWF but I can not guarantee I will be in my office unless you set up an appointment with me.

You are expected to follow the honor pledge on every assignment:

“On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid on the assignment/examination. To the best of my knowledge, I am not in violation of academic dishonesty.” This includes plagiarism which will be covered in more detail when I assign papers. Violation of the honor code will result in a grade decrease and letter to the Vice Chancellor of Academic Affairs.

If you have a physical, psychological and/or learning disability which might affect your performance in this course please contact the Office of Disability Services, 126A B&E, (803)641-3609 as soon as possible.