ANS 3440
PRINCIPLES OF ANIMAL NUTRITION
Monday – Thursday, Period 2: 9:30 – 10:45 AM
Rm. 156 Animal Sciences Building

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CATALOG DESCRIPTION:

Credits: 4; Prerequisites: CHM 2045 and CHM 2045L

The nutrients required by animals, their functions, interrelationships and the processes of their utilization; feedstuff composition and their use in diet and ration formulation.

GENERAL SCOPE:

This course is taught as an introduction to animal nutrition with emphasis placed on both non-ruminant and ruminant species.

LEARNING OBJECTIVES:

Upon completing this course, undergraduate students should be able to:

1. Discuss historical perspective and define the major terminologies used in animal nutrition.

2. Compare and contrast the functional anatomy of the gastrointestinal systems of ruminant and non-ruminant species.

3. Understand various enzymatic and metabolic processes involved in nutrient digestion and metabolism.

4. Discuss various methods used to determine the chemical composition and biological value of feed ingredients.

5. Understand how animal diets are formulated to meet requirements for maintenance and production.

6. Discuss processing and storage of animal feeds.

GRADES AND GRADE POINTS

Grading scale will be as follows:

A = 93-100 A^- = 90-92.9 B^+ = 87-89.9 B = 84-86.9 B^- = 81-83.9 C^+ = 78-80.9 C = 75-77.9 C^- = 72-74.9 D^+ = 69-71.9 D = 65-68.9 E < 65

The final grade will be computed as follows:	Points
Exam # 1	100
Exam # 2	100
Final Exam	150
Quizzes; 4 @ 25 pts. each	100
Exercise class assignments: 4 @ 25 pts. each	100

Extra Credit – 10 unannounced quizzes @ 3 points each.

For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

NOTE: ALL EXAMS AND QUIZZES ARE TO BE TAKEN AT THEIR SCHEDULED TIMES. GRADE ASSIGNMENTS FOR EXCUSED ABSENCES WILL BE DISCUSSED WITH THE INSTRUCTOR.

COURSE TEXTBOOK: NONE REQUIRED.

Reference Text you may wish to consult:

***"Feeds and Feeding"**, 5th Edition, TW Perry, AE Cullison & RS Lowrey. Prentice-Hall, Inc. Upper Saddle River, New Jersey 07458*

ABSENCES AND MAKE-UP WORK

Class attendance is not mandatory but strongly encouraged. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.

ONLINE COURSE EVALUATION PROCESS

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at the end of the semester at https://evaluations.ufl.edu/results.

ACADEMIC HONESTY

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment*."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php.

SOFTWARE USE:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

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TENTATIVE LECTURE SCHEDULE

CLASS PERIOD **TOPIC**

WEEK 1 (May 8 – 11, 2016)

1. Introduction / Expectations / Introduce the Nutrients
2. History of Nutrition and Terminology
3. Ruminant Gastro-Intestinal Tract
4. Non-Ruminants Gastro-Intestinal Tract

WEEK 2 (May 15 – 18, 2016)

1. Organs, Enzymes and Hormones Affecting Digestion
2. Energy
3. Nutrition math class
4. Nutrition math class and ***Quiz-1***

WEEK 3 (May 22 – 25, 2016)

1. Quiz 1 Review / Carbohydrates
2. Carbohydrates
3. Carbohydrates
4 Lipids

WEEK 4 (May 29 – Jun 1, 2016)

1. ***NO CLASS Memorial Day***
2. Lipids
3. Nutrition math class
4 Nutrition math class and ***Quiz-2***

WEEK 5 (Jun 5 – 8, 2016)

1. Quiz 2 Review / Lipids
2. Protein
3. Protein
4. Protein

WEEK 6 (Jun 12 – 15, 2016)

1. Vitamins
2. Vitamins
1. Open lecture for questions
2. ***Exam 1***

WEEK 7 (Jun 19 – 22, 2016)

1. SUMMER BREAK

WEEK 8 (Jun 26 – 29, 2016)

1. Minerals
2. Minerals
3. Minerals
4. Exam 1 Review and ***Quiz-3***

WEEK 9 (Jul 3 – 6, 2016)

1. ***NO CLASS 4th of July***
2. ***NO CLASS 4th of July***
3. Quiz 3 Review / Nutrition math class
4. Nutrition math class

WEEK 10 (Jul 10 – 13, 2016)

3. Feed additives
4. Feed Additives
5. Forage types and quality

4. Forage types and quality

WEEK 11 (Jul 17 – 20, 2016)

1. Silage basics
2. GMOs
3. Open lecture for questions
4. ***Exam 2***

WEEK 12 (Jul 24 – 27, 2016)

1. Exam 2 Review / Feedstuffs and diet formulation
2. Feedstuffs and diet formulation / Nutrition math
3. Nutrition math class
4. Nutrition Math class and ***Quiz-4***

WEEK 13 (Jul 31 – Aug 3, 2016)

1. Quiz 4 Review / Course evaluation
2. Open lecture for questions
3. Open lecture for questions
4. ***Final Exam***