

**ANS 3440 – Section 07H5**  
**PRINCIPLES OF ANIMAL NUTRITION**  
**Monday – Thursday, Period 2: 8:30 – 9:20 AM, 4 credits**  
**Room 100 Williamson Hall (WM 100)**

**Instructor:**

Dr. Antonio Faciola – Assistant Professor of Livestock Nutrition

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**Teaching Assistants:**

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TA's office hours and location:

- Mondays: 10-11 am in 101A library conference room in Anim. Sci. Bld.
- Tuesdays: 10-11 am in 101A library conference room in Anim. Sci. Bld.
- Wednesdays 10-11 am in 101A library conference room in Anim. Sci. Bld. (**except on 1/15, which will be in room 204 conference room, in Dairy Sci. building**).
- Please see detailed TA office hours schedule below.

Instructor's office hours: Scheduled by e-mail.

**Catalog description:**

Credits: 4; Prerequisites: CHM 2045 and CHM 2045L, or equivalent. 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:

A = 90-100, B<sup>+</sup> = 85-89.9, B = 80-84.9, C<sup>+</sup> = 75-79.9, C = 70-74.9, D<sup>+</sup> = 65-69.9, D = 60-64.9, E ≤ 59.9

**Course exams/quizzes:** In-class exams (four total) 100 points each. The lowest in-class exam score will be eliminated to calculate your final grade. In-class quizzes (14 total) 10 points each. The average of the 10 best quizzes worth a total of 100 points will be used to calculate your final grade (so you can eliminate the 4 lowest quiz scores)

Final grade will be: (sum of 3 highest exams + average of 10 best quizzes) / 4

**Exams/quizzes format:** Exams and quizzes will be mostly short-answer questions because you can show better your knowledge and understanding compared to true/false or multiple choice questions, short-answer questions also allow you to get partial credits! ☺ You should expect 5-8 questions per quiz and 25-30 questions per exam.

Comprehensive Final Exam: 100 points. Final exam is optional. It can be used to improve your grade by replacing the second lowest in-class exam. However, if you decide to take it will count by automatically eliminating your second lowest in-class exam.

Example: exam 1 = 70, exam 2 = 80, exam 3 = 0, exam 4 = 90. Averages of 10 best quizzes = 90. Final Grade =  $(70 + 80 + 90 + 90)/4 = 82.5$

Let's say, this student decides to take the final exam to improve her/his score and gets a Final Exam grade = 60. Then hers/his grade will be:  $(60 + 80 + 90 + 90)/4 = 80.0$

So if you decide to take the final (which will be comprehensive) you are responsible for your grade. My personal advice is to do well during the semester and don't have to worry about another final, focusing your efforts on the other classes that do require a final exam.

There will be no make-up exams or quizzes. This is why you are allowed to drop one exam and four quizzes. If you miss two exams, you can take the comprehensive final.

**Quizzes:** Quizzes are designed with your best interest in mind (believe me!). They will help you keep up with the weekly material and will help you tremendously for the exam because the type of questions on the quizzes will be similar to the ones on the exams. The more quizzes you take the better! They won't be too hard (they will cover the last three classes) and will give you the opportunity to see what you know, as well as, what you need to study more for the exam! It may sound like a lot but this will help you if you do your work during class. Arrive to class on time, quizzes will start precisely at the bell and will end at a reasonable time to enable lecture to begin. Quizzes usually take 15 minutes. If you arrive late you will not have adequate time to do it. Your quiz grade will be based on your 10 best quizzes. This means that more quizzes can only help you out. A missed quiz is a zero, so if you miss a quiz, for whatever reason, you will then be able to drop the zero. Just don't miss too many. There are no make-up quizzes.

Also: You may send me quiz questions by e-mail ([afaciola@ufl.edu](mailto:afaciola@ufl.edu)) until Wednesday morning (9 AM). The

best questions from students may be featured in the following quizzes! So if you send me a good question (with a correct answer) chances are that you will have a free question in the following quiz!

- You can review your quizzes and exams for **one week** after grades have been posted. After one week, quizzes and exams will be archived and no longer available for revisions.

For information on current UF policies for assigning grade points, see:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

### **Course textbook: none required:**

All information will be given through lecture, class material will be provided on Canvas during the semester. You may download these, print them, and bring them to class. If you wish to have extra material, the following book can be a good source of information: Animal Feeds, Feeding and Nutrition, and Ration Evaluation. Author: David Tisch.

### **Attendance and make-up work:**

Class attendance is not mandatory but strongly encouraged. Requirements for class attendance, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

### **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. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-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/process/student-conduct-honor-code>.

## 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.

## Services for students with disabilities:

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

## Campus helping resources:

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,

[www.counseling.ufl.edu](http://www.counseling.ufl.edu)

Counseling Services  
Groups and Workshops  
Outreach and Consultation  
Self-Help Library  
Wellness Coaching

- U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)
- Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.

## Student complaints:

**Residential Course:** <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

## Tentative lecture schedule:

Date	Day	Schedule	Exams & quizzes
1/6	Mon	Syllabus, intro to class	
1/7	Tue	Anatomy and physiology of the GIT	
1/8	Wed	Anatomy and physiology of the GIT	
1/9	Thu	Anatomy and physiology of the GIT	Quiz 1
1/13	Mon	Anatomy and physiology of the GIT	

1/14	Tue	Nutrients overview and water	
1/15	Wed	Protein nutrition	
1/16	Thu	Protein nutrition	Quiz 2
1/20	Mon	Holiday, no class	
1/21	Tue	Protein nutrition	
1/22	Wed	Protein nutrition	
1/23	Thu	Protein nutrition	Quiz 3
1/27	Mon	Protein nutrition	
1/28	Tue	Carbohydrate nutrition	
1/29	Wed	Carbohydrate nutrition	
1/30	Thu	Carbohydrate nutrition	Quiz 4
2/3	Mon	<b>EXAM 1</b>	<b>EXAM 1</b>
2/4	Tue	Exam 1 review	
2/5	Wed	Carbohydrate nutrition	
2/6	Thu	Lipid nutrition	Quiz 5
2/10	Mon	Lipid nutrition	
2/11	Tue	Lipid nutrition	
2/12	Wed	Lipid nutrition	
2/13	Thu	Feed analysis	Quiz 6
2/17	Mon	Feed analysis	
2/18	Tue	Feed analysis	
2/19	Wed	Feed analysis	
2/20	Thu	Digestibility measurements	Quiz 7
2/24	Mon	<b>EXAM 2</b>	<b>EXAM 2</b>
2/25	Tue	Exam 2 review	
2/26	Wed	Digestibility measurements	
2/27	Thu	Digestibility measurements	Quiz 8
3/2	Mon	Spring break	
3/3	Tue	Spring break	
3/4	Wed	Spring break	
3/5	Thu	Spring break	
3/9	Mon	Digestibility measurements Energetics - maintenance & thermoregul.	
3/10	Tue		
3/11	Wed	Energetics - growth	
3/12	Thu	Energetics - growth	Quiz 9
3/16	Mon	Energetics - lactation	
3/17	Tue	Feed intake	
3/18	Wed	Gut microbiology	
3/19	Thu	Gut microbiology	Quiz 10
3/23	Mon	Gut microbiology	
3/24	Tue	Gut microbiology	
3/25	Wed	Enzymes and hormones in digestion	
3/26	Thu	Enzymes and hormones in digestion	Quiz 11
3/30	Mon	<b>EXAM 3</b>	<b>EXAM 3</b>

3/31	Tue	Exam 3 review	
4/1	Wed	Nutritional metabolic disorders	
4/2	Thu	Nutritional metabolic disorders	Quiz 12
4/6	Mon	Ca, P, K, Na, and Cl	
4/7	Tue	Mg, Cu, I, and Fe	
4/8	Wed	Mn, Se, Co, and Zn	
4/9	Thu	Vit A, D, E, K	Quiz 13
4/13	Mon	B1, B2, and B3	
4/14	Tue	B5, B6, and B7	
4/15	Wed	B9 and Vit B12	
4/16	Thu	Choline, and Vit C.	Quiz 14
4/20	Mon	<b>EXAM 4</b>	<b>EXAM 4</b>
<b>5/1</b>	<b>Fri</b>	<b>FINAL EXAM at 7:30-9:30 am</b>	<b>FINAL EXAM</b>

Disclaimer: Information in the syllabus is subject to changes as the instructor sees fit, or as required by UF, IFAS, CALS, or the Department, provided that reasonable notice is given to the students.

### Tentative TA office hours schedule:

Date	Day	Time	Room	TA
1/7	Tue	10-11am	101A Anim Sci.	Richard
1/8	Wed	10-11am	101A Anim Sci.	Anay
1/13	Mon	10-11am	101A Anim Sci.	Ally
1/14	Tue	10-11am	101A Anim Sci.	Aneesa
1/15	Wed	10-11am	204 Conf. Room Dairy Sci.	Anay
1/21	Tue	10-11am	101A Anim Sci.	Richard
1/22	Wed	10-11am	101A Anim Sci.	Anay
1/28	Tue	10-11am	101A Anim Sci.	Aneesa
1/29	Wed	10-11am	101A Anim Sci.	Sarah
2/3	Mon	10-11am	101A Anim Sci.	Ally
2/4	Tue	10-11am	101A Anim Sci.	Richard
2/5	Wed	10-11am	101A Anim Sci.	Anay
2/10	Mon	10-11am	101A Anim Sci.	Ally
2/11	Tue	10-11am	101A Anim Sci.	Aneesa
2/12	Wed	10-11am	101A Anim Sci.	Sarah
2/17	Mon	10-11am	101A Anim Sci.	Anay
2/18	Tue	10-11am	101A Anim Sci.	Richard
2/19	Wed	10-11am	101A Anim Sci.	Anay
2/25	Tue	10-11am	101A Anim Sci.	Aneesa
2/26	Wed	10-11am	101A Anim Sci.	Anay
3/2	Mon	10-11am		
3/3	Tue	10-11am	Spring Break	
3/4	Wed	10-11am		
3/9	Mon	10-11am	101A Anim Sci.	Ally
3/10	Tue	10-11am	101A Anim Sci.	Aneesa
3/11	Wed	10-11am	101A Anim Sci.	Anay
3/16	Mon	10-11am	101A Anim Sci.	Ally

3/17	Tue	10-11am	101A Anim Sci.	Richard
3/18	Wed	10-11am	101A Anim Sci.	Sarah
3/23	Mon	10-11am	101A Anim Sci.	Ally
3/24	Tue	10-11am	101A Anim Sci.	Aneesa
3/25	Wed	10-11am	101A Anim Sci.	Sarah
3/31	Tue	10-11am	101A Anim Sci.	Richard
4/1	Wed	10-11am	101A Anim Sci.	Sarah
4/6	Mon	10-11am	101A Anim Sci.	Ally
4/7	Tue	10-11am	101A Anim Sci.	Aneesa
4/8	Wed	10-11am	101A Anim Sci.	Sarah
4/13	Mon	10-11am	101A Anim Sci.	Ally
4/14	Tue	10-11am	101A Anim Sci.	Richard
4/15	Wed	10-11am	101A Anim Sci.	Sarah

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