

**ANS 5446, Section 061G: Animal Nutrition  
Spring 2017**

**Description**

Carbohydrates, fats, proteins, minerals, and vitamins and their functions in the animal body.

Credits: 3

Prerequisite: ANS 3440, BCH 3025 or BCH 4024, or permission of instructor

**Lecture**

T, Period 2

R, Period 2&3

Building 459, Room 102

**Instructor**

Timothy J. Hackmann

thackmann@ufl.edu, 352-392-7566

Office hours: TBA, 210E Bldg 459

**Texts**

Required:

Pond WG, Church DB, Pond KR, Schokhecht PA. 2005. Basic Animal Nutrition and Feeding. Wiley.

Nelson DL, Cox MM. 2012. Lehninger Principles of Biochemistry. 5<sup>th</sup> ed. W.H. Freeman

**Grades and Grade Points**

Four written assignments will be given and will be worth ten points each. Four exams will be given and will be worth 100 points each.

Grades will be based on the total points earned as a percentage of total points possible (440). Letter grades will be assigned as follows:

<u>Percentage</u>		<u>Percentage</u>	
93-100	A	73 to <77	C
90 to <93	A-	70 to <73	C-
87 to <90	B+	67 to <70	D+
83 to <87	B	60 to <67	D
80 to <83	B-	<60	E
77 to <80	C+		

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

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

**Objectives**

Students will learn

- 1) The major nutrients and energy sources in feeds fed to livestock, their requirements, and their measurement;
- 2) Digestive physiology and gastrointestinal microbes and their role in nutrient utilization;
- 3) Carbohydrates, lipids, and proteins with regard to their classification, chemical structure, function, and their distribution in various classes of feeds;
- 4) Major pathways in intermediary metabolism of carbohydrates, lipids, and proteins;
- 5) Water, vitamins, and minerals and their roles in nutrient metabolism;
- 6) The regulation of nutrient metabolism and feed consumption.

## Schedule

Lecture	Topic
Jan 5	Introduction
Jan 10	Nutrients and requirements
Jan 12	Feed analysis and composition
Jan 17	Measurement of feed and nutrient utilization
Jan 19	Digestive physiology & GIT microbiology
Jan 24	GIT microbiology (cont')
Jan 26	EXAM 1
Jan 31 & Feb 2&7	Carbohydrates
Feb 9,14&16	Lipids
Feb 21	EXAM 2
Feb 23&28 & Mar 2	Protein and nitrogen
Mar 7&9	SPRING BREAK
Mar 14	Water & vitamins
Mar 16	Vitamins (cont') & minerals
Mar 21	Minerals (cont')
Mar 23	EXAM 3
Mar 28&30 & Apr 4	Energy
Apr 6&11	Hormonal regulation of nutrient partitioning
Apr 13&18	Regulation of feed consumption
Apr 20	Reading day
Apr 26	EXAM 4

Due dates for written assignments will be announced in class and posted online.

### Attendance and Make-Up Work

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 <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/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.

### **Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general well-being 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/cwc/](http://www.counseling.ufl.edu/cwc/)
  - Counseling Services
  - Groups and Workshops
  - Outreach and Consultation
  - Self-Help Library
  - Training Programs
  - Community Provider Database

- *Career Resource Center*, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)

### **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, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)