

On Line Animal Nutrition
11:067:330:90 (3 credits)
Fall 2016

Course Coordinator/Instructor: Dr. Perri Stark

Stark@aesop.rutgers.edu

It is best to contact me by email at any time!!

Course Description: Animal nutrition is designed to provide the student with a basic background of the variety of factors that must be considered when feeding any animal. Regardless of whether the student is feeding a cow, horse, dog, elephant or even a snake, there is a set of basic questions that need to be answered. This course will spend a large amount of time discussing the domestic species because the most is known about these animals but it is important to think about how that information applies more broadly.

The course is divided into three sections. The first section deals with anatomy and physiology (modules 1 -7 and corresponding chapters), the second with metabolism and biochemistry (modules 8 through 14 and corresponding textbook chapters), and the third on how to feed specific physiological states and species (modules 15 through 24 and corresponding chapters)

The on line component will consist of the student covering the lecture material through a series of modules found on the course home page and corresponding textbook chapters. The student will be reading the material, analyzing graphs, and watching and listening to animations, and performing calculations.

Learning Goals: At the conclusion of this course, students will:

- Critically evaluate different methods and models that are used to determine feed quality
- Develop an understanding of the various digestive processes and strategies used by different species
- Gain an appreciation of the major nutrients and how they are utilized by various types of animal
- Evaluate various types of diets that are used during and animal's different life stages and production as well as the appropriate diets that are fed to the major animal species

Course Website: <http://onlinelearning.rutgers.edu/ecollege>

Log into the site using your net id and password. This will take you directly to the course homepage. On this page, you will find links to all the modules, announcements, document sharing, and live chats. If you can not access the eCollege website, email help@ecollege.rutgers.edu or call 877-778-8437 (24/7/365) or 848-932-4702.

Email List: I have set up a mail tool that I will use to disseminate pertinent information on a timely basis. It will be your responsibility to check your emails on a daily basis.

Materials: The required textbook for the course is “Animal Feed, Feeding, and Nutrition and Ration Evaluation by David Tisch. I will be assigning readings from the text that will complement and supplement the material from the on line modules that can be found on the course homepage. Many of the concepts that are discussed and presented in the text complement the material in the modules. In addition, this is a solid reference text that you can keep for a long time. The book is available on line from the Rutgers bookstore. Go to the following website: www.rutgers.bncollege.co. Input fall for the term, 067 for the department, and 90 for the section. If you are in the New Brunswick area, you can also purchase it from the main Barnes and Noble bookstore. You can also purchase the book on line at www.amazon.com.

On Line Live Chats: I will be scheduling on line live chats twice a week. The chats will be an informal discussion of the material you read in the modules and textbooks. The chats are also a chance for you to ask questions and get to know your fellow on line students. The times and days of the chats will vary each week. I will send out an email on Sundays with the chat information for the upcoming week. The live chats can be accessed off the main page of the website.

Grading/Exams: Grading will be assigned based on the results of the following:

1. Two on line hourly exams (100 points each – 200 points total)
2. On line final exam (200 points)
3. 10 take home assignments (10 points each – 100 points total)

All the exams will be on line and will cover the material every 7 to 10 modules (including corresponding textbook chapters). The exams are timed for 80 minutes and everyone will take them at the same time. The exam format will consist of a combination of short answers, multiple choice, true/false, short essays. The on line exams will be available at 9 pm EST on the dates listed below. **There are NO make - up exams.** You have been given the times and dates of the exams so you can schedule your activities accordingly.

In addition, there are 10 take home assignments – roughly once a week (except for exam weeks). The assignments will be posted on the course web page on the Thursday before the due date so you will have approximately 5 days to complete the assignment.

The maximum number of points that can be accumulated is 500. Your grade will be based on the accumulation of total points from the above activities:

- A = 450 to 500 points
- B+ = 425 to 449
- B = 400 to 424
- C+ = 375 to 3
- C = 350 – 374
- D = 300 – 349
- F = 299 and below

Academic Integrity: Academic dishonesty includes, but is not limited to cheating, plagiarism, unauthorized prior possession of exams and submitting work of another as your own. Academic dishonesty will be dealt with according to the procedures outlined in the Rutgers University policy on Academic Integrity (<http://academicintegrity.rutgers.edu>)

Disabilities: Students with disabilities who need special accommodations are encouraged to contact the appropriate disability service provider on campus as soon as possible. Accommodations will be given to any student who submits an official letter from the Office of Disability. Students will not be afforded any special accommodations for academic work completed prior to disclosure of disability.

Optimizing the On Line Experience: There are 24 modules and corresponding textbook chapters that you will work on as the course progresses. The modules are found on the left hand side of the main page of the website. The semester is 14 weeks long so you have about 3 days to move through a module and corresponding chapter. You will work on the modules and chapters at your own pace, however, I am providing an optimal outline. If you follow the recommended dates and reading material, this will keep you on pace for preparation of the exams. I also encourage you to contact me as soon as possible with any questions/comments that you have.

Course Schedule

<u>Date</u>	<u>Topic/Readings/Assignments</u>
9/1	Introduction: textbook chapter 1
9/3	Feeds and Feedstuff: module 1/textbook chapter 3
9/7	Assessing Nutritive Value: module 2/textbook chapter 4
<u>9/8</u>	<u>Homework Assignment #1</u>
9/10	Comparative Anatomy: module 3/textbook 2
9/14	Rumen Fermentation: module 4
<u>9/15</u>	<u>Homework Assignment #2</u>
9/17	Nutrient Digestion: module 5
9/21	Energy Balance: module 6
<u>9/22</u>	<u>Homework Assignment #3</u>
9/24	Introduction to Nutrients: module 7
<u>9/28</u>	<u>Exam Number 1 (modules 1 through 1 and chapters 1 through 4)</u>
10/1	Bioenergetics: module 8/textbook 5
10/5	Water: textbook 11
<u>10/6</u>	<u>Homework Assignment #4 due</u>
10/8	Carbohydrates: module 9/textbook 6
10/12	Volatile Fatty Acids: module 10/textbook 6
<u>10/13</u>	<u>Homework Assignment #5 due</u>
10/15	Lipids: module 11/textbook 8

<u>Date</u>	<u>Topics/Readings/Assignments</u>
10/19	Protein: module 12/textbook 7
<u>10/20</u>	<u>Homework Assignment #6 due</u>
10/22	Vitamins and minerals: modules 13 and 14/textbook 9 and 10
10/26	Vitamins and minerals: modules 13 and 14/textbook 9 and 10
<u>10/29</u>	<u>Exam Number 2 (modules 8 through 14 and chapters 5 through 11)</u>
11/2	Practical Nutrition: module 15/textbook 12
11/5	Maintenance and Reproduction: modules 16 and 17
11/9	Lactation: module 18
<u>11/10</u>	<u>Homework Assignment #7 due</u>
11/12	Growth: module 19
11/16	Feeding Beef and Dairy Cows: textbook 16 and 18
<u>11/17</u>	<u>Homework Assignment #8 due</u>
11/19	Feeding Poultry: module 20/textbook 26
11/23	Feeding Swine: module 21/textbook 14
11/30	Feeding Equine: module 22/textbook 24
<u>12/1</u>	<u>Homework Assignment #9 due</u>
12/3	Feeding Dogs and Cats: module 23/textbook 28 and 30
12/7	Feeding Grazing Animals: module 24/textbook 20 and 22
<u>12/8</u>	<u>Homework Assignment #10 due</u>
<u>12/10</u>	<u>Final Exam (modules 15 through 24 and chapters 12 through 30)</u>