

## Equine Nutrition

Course #: 11:067:390, Sect. 90 (On Line)

Spring Semester – 3cr.

*Prerequisites:* Animal Nutrition 11:067:330 & Horse Management 11:067:384 (or special permission)

*Time:* Self-paced with weekly assignment deadlines

*Location:* This course is fully online. To access the course, please visit [canvas.rutgers.edu](https://canvas.rutgers.edu).  
<https://rutgers.instructure.com/courses/215975>. For more information about course access or support, contact the Canvas Help Desk via email at [help@canvas.rutgers.edu](mailto:help@canvas.rutgers.edu) or call 877-361-1134.

*Instructor:* Carey Williams, Ph.D.  
Office: 213E Bartlett Hall  
e-mail: [carey.williams@rutgers.edu](mailto:carey.williams@rutgers.edu)  
Phone: 848-932-5529

*Office Hours:* Email for Appointment Only

### Course Description:

This is an upper-level course focused on the proper way to feed horses and reason behind it.

### Course Objectives:

At the conclusion of this course you will be able to:

1. Identify and compare the basic digestive anatomy of horses and how it relates to digestion and absorption (PLG 3)
  - Assessment: There will be in class exams and quizzes which will have questions directed toward assessing this learning goal.
2. Recognize the diversity of a horse's nutritional requirement based on different life stages (PLG 2 & 3)
  - Assessment: There will be in class exams, quizzes which will have questions directed toward assessing this learning goal.
3. Critically evaluate feeding programs and to recognize deficits/excesses in the rations and the signs to look for in horses fed the deficient or excess nutrients (PLG 2 & 3).
  - Assessment: There will be case studies throughout the class that will help evaluate the students understanding of ration evaluation. These will be assessed for content as well as clarity of expression and analysis of the case studies.
4. Critique feeds and supplements with regard to quality, nutrient content and necessity in a horses' ration (PLG 2 & 3).
  - Assessment: There will be case studies throughout the class that will help evaluate the students understanding of feed quality and nutrient content. These will be assessed for content as well as clarity of expression and analysis of the case studies.
5. Design a feeding program for a farm incorporating 3-4 different life stages and one problem horse (PLG 6)
  - Assessment: This project will be a written analysis of the farm's diet. Students will also peer-review another group's project. This project will be assessed for content, written clarity as well as understanding of the subject material.

*Course Format:*

- Readings from texts below
- Mini-case studies
- Videos and computer programs for ration balancing
- Class group written and video project

*Texts:*

1. REQUIRED: National Research Council: Nutrient Requirements of Horses, 6th Revised Edition, 2007, <https://www.nap.edu/catalog/11653/nutrient-requirements-of-horses-sixth-revised-edition>, Can be purchased for \$99.95, or \$79.99 for eBook.
2. SUPPLEMENTAL: Horse Pasture Management, ed. Paul H. Sharpe, 1<sup>st</sup> Edition, 2018, Academic Press, hard copy or eBook (<https://www.elsevier.com/books/horse-pasture-management/sharpe/978-0-12-812919-7>). Chapters will be supplied. Or you can purchase (on sale now) for \$69.96 print or eBook.
3. Videos on course website

*Technology Requirements:*

- Computer: current Mac (OS X or newer) or PC (Windows 7 or newer) with high-speed internet connection
- Speakers
- Webcam: built-in or external webcam, fully installed (optional)
- Microphone: built-in laptop or tablet mic or external microphone
- More information on [Canvas Basic Computer Specifications](#) and [Supported Browsers](#)

*Grading:*

The grade is based on discussions, assignments, quizzes, case studies and a final project. There will be discussions each week using **PackBack (\*see below)** (13) for 10 points each (19% of grade), 3 small assignments worth 10 points each (4.4%), 2 video assignments worth 40 points each (11.6%), 4 quizzes worth 30 points each (17.6%), 3 case studies worth 40 points each (17.6%), and a final project worth 200 points (with paper (70 pts), rough draft (20 pts), peer review (30 pts), video (60 pts) and discussion (20 pts)) (29.4%). There will be NO makeup work of any kind! **PLEASE check the website at the start of each week to see what will be expected!** Quizzes will include a combination of fill-in the blank, multiple choice, and short answer. There is no final exam for this class. The final project will serve as your final evaluation of your complete understanding of equine nutrition and the proper way to feed different types of horses.

Quizzes = 120	A = 90-100%
*PackBack Discussions = 130	B+ = 87-89%
Assignments = 30	B = 80-86%
Video Assignments = 80	C+ = 77-79%
Case Studies = 120	C = 70-76%
Final project = 200	D = 60-69%
<b>Total Points = 680</b>	F = < 59%

*\* Packback Discussions Info:*

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online community where you can be fearlessly curious and ask open-ended questions to build on top of what we are covering in class and relate topics to real-world applications.

**Packback Requirements: (\*more on how to register at the end of syllabus)**

- Your participation on Packback will count toward 19% of your overall course grade.
- There will be a Weekly Saturday at 11:59PM EST deadline for submissions. In order to receive full credit, you should submit the following per each deadline period:
  - 1 open-ended Question every week with a minimum Curiosity Score of 50, worth 6 pts of each assignment grade by THURSDAY at 11:59PM EST
  - 2 Responses every week with a minimum Curiosity Score of 50, worth 4 pts of each assignment grade by Saturday at 11:59PM EST
    - Half credit will be provided for questions and responses that do not meet the minimum curiosity score.

*Final Project:*

Students will work in groups of 3-4 which I will assign for you. Each group will choose a farm (real or fictional, or any combination of these) and create a diet management plan for that farm. The farm must consist of at least 3 different life stages, and 1 'problem' horse (1 horse per group member). The diet management plan must consist of the total diet (forage, concentrates and any possible supplements) using key points we used in class. Pastures must be evaluated and used for at least 1 of the horses on the farm. If pasture is not used, you must provide a good justification as to why not. If the farm is fictional you can use one of the Rutgers pastures to evaluate however, approval MUST be obtained before entering any of the horse fields. Hay can be analyzed, or you can use what is found on equi-analytical.com (as shown in class). For more details please see the Group Project Assignment. See more details for this assignment on Canvas.

*Course Website:*

Canvas: <https://rutgers.instructure.com/courses/215975>. Login to the site using your NetID (or email) and password. If you are enrolled in the course there should be a tab identified by the course number.

*Student Participation Expectations:*

Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Logging in: AT LEAST TWICE PER WEEK**

Be sure you are logging in to the course in Canvas twice each week, including weeks with holidays or weeks with minimal online course activity. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.
- **Time Commitment:**

To be successful in this course, you should plan to dedicate approximately 8-10 hours per week.
- **Participating in discussion forums: 3 OR MORE TIMES PER WEEK**

As participation, each week you can expect to post at least three times as part of our substantive class discussion on the week's topics.
- **Weekly assignments:**

Even though this class is an on-line class and is basically self-paced, each week there are assignments due. PLEASE check in each class module by Monday of each week to see when things are due. For the most part the Discussions start on the Thur. and most major assignments are due on Sunday or Monday. For full credit these MUST be turned in on time! See my policy below.

*Discussion and Communication Guidelines:*

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:**

While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics. Please also refrain from using all CAPITAL LETTERS, as this is often interpreted as shouting.

- **Tone and civility:**

Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. Treat your instructor and fellow students with respect at all times, and in all communications.

- **Citing your sources:**

When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.) For papers and other assignments please use this citation format:

[https://academic.oup.com/jas/pages/General\\_Instructions](https://academic.oup.com/jas/pages/General_Instructions).

*Late Work and Make-up Exams:*

PLEASE check the website at the start of each week to see what will be expected! Very few exceptions to these deadlines will be made, but if you feel you are one of the extreme circumstances please email me. Assignments that are turned in more than 24 hours late will not be able to count towards class credit. Assignments turned in within 24 hours of the assignment deadline will only be worth up to half credit.

*Other Policies:*

The university's policy on Academic Integrity is available at

<https://academicintegrity.rutgers.edu/sites/default/files/pdfs/current.pdf>.

*SEBS DEI Statement:*

It is our intention that students of all backgrounds will be well served by this course. We will work to create an environment of inclusion which respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities, and perspectives. We are lucky to have a diverse university. Diverse voices and life experiences enhance the learning process, and we welcome students to share their personal experiences. We will not tolerate disrespectful language or behavior against any individual or group. If you feel as though you have been disrespected or treated unfairly by the instructors or any other individual, please let us know. You may speak with the instructors in person, over email or report anonymously via the Office of Academic Programs. In addition, you may also report bias to the Rutgers Diversity and Inclusion initiative using this link:

<http://inclusion.rutgers.edu/report-bias-incident/>.

*Support Services:*

Counseling, ADAP & Psychiatric Services (CAPS) (848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/  
[www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

Violence Prevention & Victim Assistance (VPVA) (848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 /  
[www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)

Disability Services (848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue,  
Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

DoSomething button through Rutgers Dean of Students office: <http://health.rutgers.edu/do-something-to-help/>

Wellness Coaching through Rutgers HOPE: <http://health.rutgers.edu/education/hope/wellness-coaching/>

Self-Help Apps found on the Rutgers Student Health website: <http://health.rutgers.edu/education/self-help/self-help-apps/>

NJ Hopeline - (1-855-654-6735) | National Suicide Hotline - (1-800-273-825)

*Turnitin:*

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com (directly or via learning management system, i.e. Sakai, Blackboard, Canvas, Moodle) for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

Students who do not agree should contact the course instructor immediately.

**Course Schedule: (Subject to change, please see Canvas for final due dates and readings)**

**HINT:** Weekly PB discussions are required EVERY WEEK; first post is always due by Midnight on Thur. (Day 4) with 2 responses due by Midnight on Saturday (Day 6). **Weekly minor assignments and quizzes are always due on Sunday (Day 7)** of each week there are assignments. Major assignments (i.e. case studies and video assignments) will always be due 8 days after the assignment opens (or Monday at midnight). It is your job to log onto the course on Day 1 to see what is due each week! Please see my policy above on late assignments.

Class Start Date/Module #	Lecture Topics	Major Assignment Deadlines	Reading/Videos (all listed in Canvas)
Jan. 17 Module 1	Digestive Anatomy/ Physiology Fermentation	<b>PB (D4+6) Assign. (D7)</b>	Lecture Notes Videos: in Canvas
Jan. 23 Module 2	Nutrients and the NRC	<b>PB (D4+6) Quiz 1 (through Nutrients) (D7)</b>	Lecture Notes NRC: Summary & CH 2, 3, 4 (up to p. 57 & 64-66), 5 (through macrominerals) & 6 Videos: in Canvas
Jan. 30 Module 3	Energy Consumption and Metabolism	<b>PB (D4+6) Assign. (D7)</b>	Lecture Notes NRC: CH 1 (up to p. 7, & 27-28)
Feb. 6 Module 4	Feedstuffs – Roughages Reading a Forage Analysis	<b>PB (D4+6) Assign. (D7)</b>	Lecture Notes NRC: CH 8 (up to p. 159) & 10 Videos: in Canvas
Feb. 13 Module 5	Feedstuffs – Concentrates Reading Feed Tags	<b>PB (D4+6) Quiz 2 (through Concentrates) (D7) Project outline due (D8)</b>	Lecture Notes NRC: CH 8 (p. 159-162 & 167-174) Videos: in Canvas
Feb. 20 Module 6	Feedstuffs – Supplements	<b>PB (D4+6) Case Study 1 Assignment (D8)</b>	Lecture Notes NRC: CH 8 (p. 162-166) & 9 Videos: in Canvas
Feb. 27 Module 7	Feeding the horse at maintenance Body Condition Score/Body weight	<b>PB (D4+6) Video Assignment 1 Due (D8)</b>	Lecture Notes NRC: CH 1, 4, 5, 6 (parts/recommendations on Maint. only) Videos: in Canvas
Mar. 6 Module 8	Feeding the Stallion and Broodmare Feeding the Growing Horse	<b>PB (D4+6) Case Study 2 Assignment (D8 * NOTE, this is during Spring Break, plan ahead and submit early if needed!)</b>	Lecture Notes NRC: CH 1, 4, 5, 6 (parts/recommendations on Growth and Reproduction only) Videos: in Canvas
Mar. 13	NO CLASS! Spring Break!		
Mar. 20 Module 9	Feeding the Exercising Horse	<b>PB (D4+6) Quiz 3 (through Exercising Horse) (D7)</b>	Lecture Notes NRC: CH 1, 4, 5, 6 (parts/recommendations on Exercise only) & 7
Mar. 27 Module 10	Ration Formulation	<b>PB (D4+6) Case Study 3 Assignment (D8)</b>	Lecture Notes NRC: CH 14 Videos: in Canvas
Apr. 3 Module 11	Pasture Management Evaluating a Pasture	<b>PB (D4+6) Video Assignment 2 Due (D8) Project Rough Drafts due (D8)</b>	Pasture Text: CH 9 (online, see course website for details) Videos: in Canvas

<b>Apr. 10</b> <b>Module 12</b>	Feeding the Senior/Geriatric Horse Nutritionally Related Problems	<b>PB (D4+6)</b> <b>Peer Reviews Due (D8)</b>	Lecture Notes NRC: CH 12 Videos: in Canvas
<b>Apr. 17</b> <b>Module 13</b>	Feeding Myths, Behavior and Management	<b>PB (D4+6)</b> <b>Quiz 4 (through Myths, Mgt, etc.) (D7)</b> <b>Final Videos due (D8)</b>	Lecture Notes NRC: CH 11 Videos: in Canvas
<b>Apr. 24</b> <b>Module 14</b>	Final Project Videos Post-Test	<b>Final Papers due (D8)</b> <b>Video discussion (D4+6)</b>	
<b>May 1</b>	LAST DAY	<b>Just submit your Final Papers!</b>	

### *How to Register on Packback:*

You will register for Packback via Canvas. Navigate to the “Assignments” tab on the left hand side of your screen and click into your first Packback assignment. From there, you’ll follow the instructions on your screen to finish registration.

Note: If you already have an account on Packback you can log in with your credentials.

If needed, you can enter our class community’s lookup key into the “Looking to join a community you don't see here?” section in Packback at the bottom of the homepage.

Community Lookup Key: **ba0dc487-74e4-4bbe-b41d-fc28d9cdce3b**

### *Syncing Scores from Packback to Canvas:*

Every week, **you** are responsible for syncing your grades from Packback to Canvas. [Here](#) are step by step instructions on how to manage and complete this sync. There are additional instructions below:

## How to send my Packback grade to the Canvas gradebook?



**Only access Packback via Canvas to activate the grade transfer process:**

1. Go to your course on Canvas
2. Click the link for a Packback assignment you want to sync.
3. Allow Packback to load so you see the community feed. You may need to click “Load Packback in a new tab.”

***For your grade to transfer from Packback to Canvas you must do this for each assignment. You can still activate the assignment if the deadline is passed.***



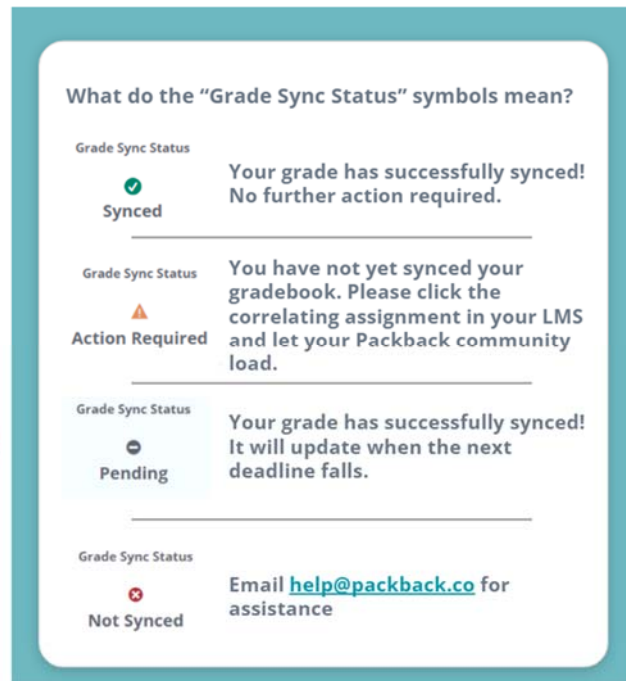
### Questions?

If you have any issues getting your grade to transfer to Canvas, please email [help@packback.co](mailto:help@packback.co)



## You are responsible for your gradebook sync!

How do you check?



Packback may require a paid subscription. Refer to [www.packback.co/product/pricing](http://www.packback.co/product/pricing) for more information.

### *How to Get Help from the Packback Team:*

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at [help.packback.co](http://help.packback.co). If you need more help, contact their customer support team directly at [help@packback.co](mailto:help@packback.co).

For a brief introduction to Packback Questions and why we are using it in class, watch this video:

<https://www.youtube.com/watch?v=OV7QmkrD68>