



ANEQ 345

Principles of Nutrition: Equine Applications
Syllabus and tentative schedule – Spring 2018
Classroom Clark A 207

INSTRUCTORS: Coordinator Tanja Hess (tanja.hess@colostate.edu; 970-491-8612).
(Office hours in Animal Science room 36, Mo, We Fri, 8:30 to 9:45 or by appointment)

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COURSE CATALOG DESCRIPTION:

Principles of nutrition and their application in feeding horses in different physiological states to promote their health and well-being.

COURSE OBJECTIVES:

Upon successful completion of this course students will:

- Understand the principles of nutrition (i.e. feed chemical composition and associated measures, factors influencing feed intake, digestion, absorption, metabolism, dietary requirement estimation, ration evaluation, and ration formulation)
- Apply the principles of nutrition in feeding horses in a variety of different physiological states in an effort to promote their health and well-being.

TEXT: (Recommended)

- 1) *Equine Nutrition and Feeding* by David Frape, Fourth edition (2013)
- 2) *Feeding and Care of the Horse* by Lon D. Lewis
- 3) *Nutrient Requirements of Horses, Sixth Revised Edition* (2007).

POLICIES:

- If absent from class, **students are solely responsible** for obtaining any information (e.g., notes, handouts, change in test dates etc...) announced in class.
- Students have one week following the return of exams and other graded items to resolve grading issues. Following that time all grades are final.
- Exams and other graded materials should be retained by students until a final course grade is assigned.
- Academic integrity is **expected**.

CSU policy on academic integrity, found in the Student Rights and Responsibilities section of the University General Catalog(<http://www.catalog.colostate.edu>), applies to this course. All incidents of academic misconduct (e.g., cheating, plagiarism, unauthorized possession or distribution of academic materials, falsification, facilitation of cases of academic misconduct, etc.) may result in a failing grade on the relevant assignment, exam or for the course. Furthermore, all incidents of academic misconduct will be reported to the Office of Conflict Resolution and Student Conduct Services. Students sign assignments and tests to declare that the work was completed independently and without unauthorized aid. This represents student commitment to honorable and trustworthy behavior, in the spirit of the Honor Pledge. The course instructor will list items such as class and study group notes, review assignments, formula sheets, and (or) tests from previous courses, that can be shared without violating academic integrity.

CSU **HONOR PLEDGE:** "I have not given, received, or used any unauthorized assistance."

Assistance for maintaining academic integrity can be found here:

<http://learning.colostate.edu/integrity/index.cfm#>

It is very important to me that you practice academic integrity in this class, and that you make it a habit in your own lives. In this class, I want to know what you have learned, not what you can “copy” from someone else. That also applies to “giving” others your work – it is your own intellectual property! Don’t enable someone else to do the wrong thing!

I will give you specifics on each type of assignment given.

- All students will take all examinations and in-class quizzes on announced dates. Make-up exams and quizzes will only be given for the legitimate reasons **approved by the instructor**. All make-up exams and quizzes may be short answer, essay or oral in nature. Students must notify the professor **BEFORE** the scheduled exam time or when assignments are due and present the requested verification in order to make up missed work. In the case of absence due to emergency, students **MUST** call the professor and come by to arrange for make-up work immediately after the absence (within 2 business days of the absence: Monday = by the class time on Wednesday; Friday by 10:00 on Tuesday). No make ups for any work will be given unless scheduled within 2 business days of the absence or earlier if known.
- Late Assignments: Late assignments will be allowed up to 1 week after the due date with points **deducted in an increasing manner**. Late assignments after 1 week of the due date will not be accepted unless the student has extenuating circumstances (in which case they must contact and meet with the professor).
- Summary of total course points:
 - Three (3) Regular Exams (100 pts each; scheduled throughout the semester) AND
 - One (1) Comprehensive Final Exam (100 pt exam)
 - Top THREE count 300 pts
 - Class assignments: Quizzes: – 5 quizzes, 10 pts each; top 4 count 40 pts.
 - Assignments/ration/ Discussions 100 pts

Total Possible points 440 pts.

GRADING SCALE:

- 89.5% - 100% = A**
- 79.5% - 89.4% = B**
- 69.5% - 79.4% = C**
- 59.5% - 69.4% = D**
- Below 59.5% = F**

TENTATIVE SCHEDULE SPRING ANEQ-345

Week one January 17, 19	TOPIC 1:-Introduction TOPIC 2:-Nutrient classification and functions
Week two January 22, 24, 26	TOPIC 3: Feed classification QUIZ 1 Friday, January 26 - 10 pts.
Week three : January 29, 31, February 2	TOPIC 4: Feed Related Problems TOPIC 5: Nutrient Distribution and Measures of Feed Nutritive Value
Week four February 5, 07, 09	TOPIC 6:-Digestion and Absorption QUIZ 2 – Wednesday, February 07; 10 pts. TOPIC 7: Digestive disorders and prevention
Week five February 12, 14, 16	<u>EXAM 1-Wednesday, February 14 100 pts.</u> TOPIC 7: Digestive disorders and prevention
Week six February 19, 21 , 23	TOPIC 8: Digestive Management and prevention of problems
Week seven February 26, 28 March 2	TOPIC 9: Minerals and Vitamins TOPIC 10: Metabolism – Protein and Water QUIZ 3 10 points (28)
Week eight March 05, 07, 09	TOPIC 11: Energy Metabolism TOPIC 12: Body Condition Scoring lecture (BCS assignment)
Week nine MARCH 12-16	SPRING BREAK – NO CLASS
Week ten March 19, 21, 23	TOPIC 13: Nutrient Requirements and the Maintenance Horse TOPIC 14 –<u>Ration Evaluation: in class assignment, ration evaluation (20 point) Wednesday</u> <u>EXAM 2 (23)</u>
Week Eleven March 26, 28, 30	TOPIC 17 – The Young Horse TOPIC 16 – Feeding Breeding Horses
Week Twelve April 2, 4, 6	TOPIC 20 –Ration Balancing <u>Friday ration balancing in class 25 points</u> TOPIC 18 – Refeeding, Obese Horses and Changing BCS TOPIC 19-Insulin resistance and metabolic syndrome
Week Thirteen April 9, 11, 13	TOPIC 21– Feeding Performance Horses cont. QUIZ 4– Friday, April 13 – 10 pts.
Week Fourteen April 16, 18, 20	TOPIC 15 Feeding Older Horses, Temperature Stress TOPIC 21- Feeding Supplements (Sarah Matlock)
Week Fifteen April 23, 25, 27	<u>EXAM 3 –Wednesday, April 25-100 pts.</u> Dr. Engle ruminant digestive system
Week Sixteen April 30, May 2, 4	TOPIC 22 -Managing Pastures for Horses Pasture managing homework in class (10 points) QUIZ 5– Monday, April 30- 10 pts. Equine nutritionist.
Final Exam Th, May10	7:30-9:30