ABAS 4440-001 (EXL)
EQUINE NUTRITION AND FEEDING
M/W 2:20–3:45 p.m. at the Horse Science Center
COURSE SYLLABUS – FALL 2011

Description: This course reviews equine digestion and utilization of nutrients, appropriate feeds and feeding management, and diseases with a nutritional component. Nutrient requirements for horses at various stages, including maintenance, reproduction, growth, performance, age and clinical support will be examined in depth.

Course objectives:
- To understand the anatomy, physiology and metabolic processes related to equine nutrition.
- To understand horses’ nutritional requirements as related to age, work, reproductive stage and clinical support.
- To develop the skills needed for nutritional assessment used in equine nutritional consulting as well as to apply these skills to nutritional management in your personal stable.

This course is an experiential learning course. The course includes a hands-on learning project (applied learning, service-learning, creative activity, teacher education, laboratory, co-op, or internship). MTSU wants to provide relevant real-world learning opportunities that will benefit students. The course will count toward the requirements of the EXL Scholars Program that formally began on campus in fall 2006. For more information about the EXL Scholars Program, check the website: http://www.mtsu.edu/~exl.

EXL objectives:
- Students will develop an experience-based knowledge of their discipline and demonstrate the ability to apply theories and concepts to practical problems.
- Students will engage in systematic reflection and demonstrate the ability to critically examine their experiences and to create connections between those experiences and disciplinary knowledge.
- Students will develop and demonstrate managerial skills including planning, organizing, problem solving, and communicating.
- Students will develop and demonstrate leadership skills: interpersonal skills, ability to direct others, and teamwork.

Instructor:
Dr. Rhonda M. Hoffman
Professor, School of Agribusiness and Agriscience
Diplomate of the American College of Animal Nutrition
E-mail: rhoffman@mtsu.edu  URL: http://www.mtsu.edu/~rhoffman
Availability:
I will be dividing my time between my offices at the Horse Science Center and the Stark Agribusiness and Agriscience building. Office hours will be posted on each door. I have an open door policy, so if I am in and the door is open, please feel free to speak with me. If you need a guaranteed meeting time, please make an appointment.

Required Text and Materials:
The course will be supplemented with handouts provided by the instructor. Some required readings taken from the recommended reference below or from current scientific literature and publications from the horse nutrition industry will be provided as handouts. You should purchase a 3-ring binder (1½") to keep your notes organized.


You will need a calculator to use in class and for the exams. Nothing fancy…add, subtract, multiply and divide are all of the functions that are necessary.

Evaluation procedures:
- Three in-class Exams, including written as well as visual components, such as identification of slides, feeds and forages or live animals. 300 pts
- Ten Quizzes (eight for credit). The scores from the lowest two quizzes will be dropped from the average. 200 pts
- Group projects: Feeding plans for assigned horses. 100 pts
- Group projects: Horse Feeding & Performance Records. 100 pts
- Individual: Feeding & Performance Journal. 100 pts
- Final Nutrition Group Project Presentations. 200 pts
Total 1000 pts

Grading scale:
> 90% = A;
86–89% = B+; 80–85% = B;
76–79% = C+; 70–75% = C;
66–69% = D+; 60–65% = D;
< 60% = F.

Attendance policy:
Attendance for lecture will not be maintained; however, all exam information will be taken directly from lecture materials. If you miss class, it is your responsibility to obtain missed lecture handouts from the instructor. Any additional notes that may have been taken during class must be acquired from your peers.

Make-up Exams and Quizzes will not be allowed unless an absence is excused, such as in the case of family emergency, illness (with doctor’s note), university extracurricular activities, or other extenuating circumstances approved by the instructor on a case-by-case basis.
Having worked my own way through college, I am well aware that you may have work commitments; however, your work schedule is not an excuse for missed classes, incomplete or poor quality work. Two quizzes dropped from the average allow some leniency for unexcused absences.

Classroom policies:
Assignments are due on time, during the class period in which they are due. Assignments turned in late will be accepted; however, a penalty of one letter grade will be added for each class period past the due date, with the first penalty beginning at the end of the class period in which the assignment is due.

During class periods when we meet in the Horse Barn (announced in class or on the syllabus), you are expected to wear appropriate clothing to ensure your comfort and safety when working around horses. Shoes should cover your feet completely and have a hard or sturdy covering over the toe (i.e. no open-toed or open-backed shoes, no light canvas or cloth shoes). The barn and arena may be quite cold during the winter season, so dress accordingly. Please note that the soil in the arena contains red clay that may stain white or light-colored shoes and clothing.

Cell phones should be turned off or silenced prior to entering the classroom. Individual conversations during lecture periods are disrespectful and disruptive to the rest of the class. Those who persistently talk during lecture will be penalized on their participation grade and may be asked to leave the classroom.

Academic misconduct:
It is expected that all work you complete for this course is your own. The University policy for academic misconduct will be followed. Academic misconduct includes the following behaviors: plagiarism, cheating, fabrication, or facilitating any such act.

For purposes of this section, the following definitions apply:

1) **Plagiarism.** The adoption or reproduction of ideas, words, statements, images, or works of another person as one’s own without proper acknowledgment.

2) **Cheating.** Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.

3) **Fabrication.** Unauthorized falsification or invention of any information or citation in an academic exercise.

4) **Facilitation.** Helping or attempting to help another to violate a provision of the institutional code of academic misconduct.

Any student suspected of committing academic misconduct may be asked to meet with me to discuss the situation. If you are found responsible for committing an act of academic misconduct, you will be given a failing grade for the semester and reported to the Director of ABAS and the Assistant Dean for Judicial Affairs and Mediation Services for disciplinary action.
Do you have a lottery scholarship?
Do you have a lottery scholarship? To retain Tennessee Education Lottery Scholarship eligibility, you must earn a cumulative TELS GPA of 2.75 after 24 and 48 attempted hours and a cumulative TELS GPA of 3.0 thereafter. You may qualify with a 2.75 cumulative GPA after 72 attempted hours (and subsequent semesters), if you are enrolled full-time and maintain a semester GPA of at least 3.0. A grade of C, D, F, or I in this class may negatively impact TELS eligibility. Dropping a class after 14 days may also impact eligibility; if you withdraw from this class and it results in an enrollment status of less than full time, you may lose eligibility for your lottery scholarship. Lottery recipients are eligible to receive the scholarship for a maximum of five years from the date of initial enrollment, or until a bachelor degree is earned; students who first received the lottery scholarship in Fall 2009 or later will additionally be limited to 120 TELS attempted hours. For additional Lottery rules, please refer to your Lottery Statement of Understanding form, review lottery requirements on the web at http://www.mtsu.edu/scholarships/telsconteligibility_scholarships.shtml or contact the Financial Aid Office at 898-2830.

Reasonable accommodations for students with disabilities:
ADA accommodation requests (temporary or permanent) are determined only by Disabled Student Services. Students are responsible for contacting the Disabled Student Services Office at 615-898-2783 to obtain ADA accommodations and for providing the instructor with the Accommodation Letter from Disabled Student Services.

Important dates for Fall 2011:
August 29: Classes begin.
September 1: Deadline for students to add a class on RaiderNet.
September 5: Labor Day – no classes
September 9: Deadline for students to drop a course without a grade.
October 15–18: Fall Break – no classes.
November 2: Deadline for students to drop a course with a grade of “W”.
November 24–27 Thanksgiving holiday – no classes
December 2: Deadline for students to withdraw (all classes) from the University.
December 7: Last day of classes.
December 8: Study Day.
December 9–15 Final exams.
December 17: Commencement.
December 19: Deadline for professors to turn in final grades, 9:00 a.m.

The Fine Print:
The instructor reserves the right to modify the information in this syllabus if deemed appropriate during the course of this class. Any modifications will be announced in class with a reasonable time frame considered for planning purposes.
### Tentative Course Outline:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Aug 29</td>
<td>Course introduction.</td>
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<tr>
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<td>Nutrient requirements for horses: an orientation to the NRC.</td>
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<td>Body weight and body condition scoring. Assessing nutritional status.</td>
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<td>Forages: Pastures and Hays. Sampling and proximate analysis.</td>
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<td>Energy concepts. GE, DE, ME, NE. Two important macrominerals: Ca and P</td>
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<td>Nutrition for horses at maintenance.</td>
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<td>Balancing a ration. Pearson’s square.</td>
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<td>Forages: Pastures and Hays. Sampling and proximate analysis.</td>
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<td>Grains and commercially prepared horse feeds. Reading feed tags.</td>
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<td>Anatomy &amp; physiology of the equine digestive system</td>
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<td>Oct 5</td>
<td>EXAM 1</td>
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<td>Water requirements.</td>
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<td>Carbohydrates and grain overload. Lipids: fats and oils.</td>
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<td>Protein: quantity versus quality.</td>
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<td>Nutrition for performance.</td>
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<td>Oct 15-18</td>
<td>Fall Break — No class</td>
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<td>Obesity, Insulin resistance and Metabolic Syndrome.</td>
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<td>Nov 7</td>
<td>EXAM 2</td>
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<td>Vitamins: fat soluble (A, D, E, K) and water soluble (C and B-complex)</td>
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<td>More Macrominerals. Mg, K, Na, Cl, S</td>
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<td>Trace minerals. Cu, Zn, Mn, Fe, Se, I, Co</td>
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<td>Nov 24-27</td>
<td>Thanksgiving Break — No class</td>
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<td>Feed supplements and nutriceuticals.</td>
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<td>Dec 5</td>
<td>EXAM 3</td>
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<td>Last day of class.</td>
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<td>Dec 7</td>
<td>FINAL EXAM Wednesday, Dec 14, 12:30–2:30 pm. (NOTE: the exam time is different from the class meeting time!)</td>
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<td>Dec 14</td>
<td>Final Project Presentations.</td>
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### Quiz Dates: