course description

ANS 3405 is an applied nutrition course focusing on feeding programs for all types and classes of horses. Topics will include digestion & absorption, selection of feeds, nutrient requirements, diet evaluation and formulation, feeding management, and treatment and prevention of feeding-related disorders. Classroom activities and assignments will integrate the science of nutrition with practical horse management, enabling you to create feeding programs that promote equine health and well-being.

learning objectives

1) Differentiate the digestive anatomy and digestive processes unique to equids;
2) Evaluate and select appropriate feeds for horses;
3) Design effective diets and feeding programs to meet the horse’s nutritional and psychological needs;
4) Apply basic math (e.g., percentages, ratios, unit conversions, algebra) to formulate equine rations;
5) Analyze feeding-related problems and develop practical solutions.

prerequisites for this course

Before taking this course you must have:
✓ ANS 3440 Principles Animal Nutrition
✓ College Algebra (minimum math level)
✓ 1 semester of general chemistry

what’s in this syllabus?

class time & location p. 1
course description p. 1
prerequisites p. 1
instructor & TA contact p. 1
course resources p. 2
course requirements p. 2
grading policy p. 3
other course policies p. 3
UF policies & services p. 4
schedule of topics p. 5

instructor

Dr. Lori K. Warren
office: ANS Suite 210, Office 210G
phone: (352) 392-1957
email: LKWarren@ufl.edu
*email is the preferred way to reach me

office hours

Tues & Thurs 10:00 – 11:30 a.m.
Thurs 12:35 – 2:00 p.m.
Or, email for an appointment
I will usually respond within 24 hours

teaching assistant

Sorry, no TA this semester! If you need assistance, please contact Dr. Warren. Don’t let yourself get too behind before you seek help!
Applied nutrition is a balance of science and mathematics. This course will involve simple and algebraic calculations, reading, group & individual work, and outside effort. You will be required to apply what you’ve learned to solve practical feeding problems. To develop independent-thinking that will serve you beyond your time in this course, you will be asked to research topics not covered in lecture and use your nutritional foundation to determine how the diet should be changed to improve management practices. You will need to put in consistent effort throughout the semester, as each topic and skill you learn will build upon previous ones. To get the most out of this course, come to lecture, ask questions, and get help before you get too far behind! 

Learning is not a spectator sport.

**calculator** – You will need a standard calculator to perform simple and algebraic calculations. Use of the calculator function on your phone will NOT be allowed during quizzes and exams.

**assignments** – You will have 8 major homework assignments, as well as a few smaller (minor) assignments in this course. Many are case studies that depict practical feeding scenarios. Your task will be to evaluate the problems presented and develop solutions. In some cases, background information will be provided in lecture. In other cases, you will have to conduct your own background research in order to complete the assignment. Each assignment (with instructions) will be provided at least 5 days before it’s due. They will also be posted to CANVAS.

**quizzes** – expect both announced and unannounced quizzes.

**exams** – There will be 3 exams, each covering approximately one-third of the course material. Although exams are not technically cumulative, new material does build upon previous information throughout the semester. Exam format will consist of multiple choice, true/false, short answer, essay questions, and math calculations.

**extra credit** – bonus points will be available on all exams and on most assignments.

---

Forage is the foundation of the horse’s diet. Whether pasture or hay, they should consume 1.5 – 2.0% of body weight in dry matter to meet nutrient requirements and maintain gut health.
grade policy

grade distribution
Assignments & Quizzes …………... 40 %
3 Exams…………………………… 60 %

grading scale
A = 90 – 100 %
B = 80 – 89.9 %
C = 70 – 79.9 %
D = 60 – 69.9 %
E = less than 60 %

Do not wait until the end of the semester to discuss any problems you are having with this course or your performance. Your success in this course is important!

attendance, make-up and late work

attendance
Regular attendance is expected and active participation is necessary for successful completion of this course. If you know you will be absent from class, please contact the instructor at least one week in advance of the date(s) missed. If you have an unforeseen emergency, you will need to provide written documentation to support your absence (eg, if you are sick, a doctor’s note is required).

make-up work
It is your responsibility to contact the instructor to develop a plan to make-up any work you miss. Missed work for excused class absences will be accepted with no penalty if completed by the agreed-upon extended deadline.

late work
It is expected that ALL assignments will be submitted on time. Without a valid absence, assignments turned in late will receive the following penalty:
0.1 – 24 hrs late = – 25%
24 – 48 hrs late = – 50%
>48 hrs late = NOT accepted

The opportunity to make-up missed work will not be offered without a valid excuse. This policy applies to all exams, quizzes, and assignments. Class attendance and make-up work policies are consistent with UF policies found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

class etiquette

- Several class periods will be devoted to discussion of case studies. Come prepared to share your solutions with the class. This is a learning opportunity. Don’t be afraid to participate!
- Be respectful of other students’ opinions, knowledge and background. If you have more “horse sense” than your neighbor, be a helper, not a hater.
- Avoid electronic distractions. Silence (& ignore!) your phone during class. Use your laptop or tablet to take notes, not to check social media or surf the ‘Net.
- Photographing lecture slides is not allowed.
- As a courtesy to me and others, please arrive to class on time.

At 100 feet long with a 50-gallon capacity, the horse’s gastrointestinal tract is massive! Like a human, horses are a monogastric animal. However, the horse’s “hindgut” makes up two-thirds of its digestive system and enables them to be a grass-eating herbivore.
Disability Resource Center coordinates the needed accommodations of students with disabilities, including recommending accommodations, accessing special equipment, and providing interpretation services. Students requesting accommodations should first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation.

Students with disabilities – the Disability Resource Center coordinates the needed accommodations of students with disabilities, including recommending accommodations, accessing special equipment, and providing interpretation services. Students requesting accommodations should first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Student assessment of instruction is an important part of efforts to improve teaching & learning. At the end of the semester, you will have the opportunity 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. You will be notified when the evaluation system is open (typically the last two weeks of the semester). It is expected that you will contribute your feedback for this course and the others in which you are enrolled this term. Summary results of course evaluations are available at https://evaluations.ufl.edu/results.

I value your feedback!

It is assumed that you will complete all work independently in this course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g., assignments, quizzes, exams).

Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of this class.

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.

Students with disabilities – the Disability Resource Center coordinates the needed accommodations of students with disabilities, including recommending accommodations, accessing special equipment, and providing interpretation services. Students requesting accommodations should first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Disability Resource Center 352-392-8565 https://disability.ufl.edu/

UF policies

academic honesty – UF students are bound by the Honor Pledge which states: “We the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code.” 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.” The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/).

Students with disabilities – the Disability Resource Center coordinates the needed accommodations of students with disabilities, including recommending accommodations, accessing special equipment, and providing interpretation services. Students requesting accommodations should first register with the Disability Resource Center by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Disability Resource Center 352-392-8565 https://disability.ufl.edu/

36,000 calories per day are required by horses who undergo intense exercise training & competition, such as 2018 Triple Crown Champion “Justify.” It can be a challenge to get these athletes to eat enough to meet their daily caloric demands.
### course schedule*

<table>
<thead>
<tr>
<th>date</th>
<th>lecture</th>
<th>assignment due</th>
</tr>
</thead>
<tbody>
<tr>
<td>T – aug 20</td>
<td>course intro / anatomy of GI tract</td>
<td></td>
</tr>
<tr>
<td>R – aug 22</td>
<td>digestion &amp; absorption</td>
<td></td>
</tr>
<tr>
<td>T – aug 27</td>
<td>digestion &amp; absorption</td>
<td></td>
</tr>
<tr>
<td>R – aug 29</td>
<td>digestive disorders</td>
<td></td>
</tr>
<tr>
<td>T – sept 3</td>
<td>nutrient requirements &amp; the NRC</td>
<td>basic nutrition calculations</td>
</tr>
<tr>
<td>R – sept 5</td>
<td>ration evaluation</td>
<td></td>
</tr>
<tr>
<td>T – sept 10</td>
<td>feeding the maintenance horse</td>
<td></td>
</tr>
<tr>
<td>R – sept 12</td>
<td>DISCUSSION – case study #1</td>
<td>case study #1</td>
</tr>
<tr>
<td>T – sept 17</td>
<td>EXAM 1</td>
<td></td>
</tr>
<tr>
<td>R – sept 19</td>
<td>feed selection</td>
<td></td>
</tr>
<tr>
<td>T – sept 24</td>
<td>feed selection</td>
<td></td>
</tr>
<tr>
<td>R – sept 26</td>
<td>feed selection</td>
<td></td>
</tr>
<tr>
<td>T – oct 1</td>
<td>feeding working/performance horses</td>
<td>commercial feed evaluation</td>
</tr>
<tr>
<td>R – oct 3</td>
<td>feeding working/performance horses</td>
<td></td>
</tr>
<tr>
<td>T – oct 8</td>
<td>ration formulation</td>
<td></td>
</tr>
<tr>
<td>R – oct 10</td>
<td>DISCUSSION – case study #2</td>
<td>case study #2</td>
</tr>
<tr>
<td>T – oct 15</td>
<td>feeding broodmares &amp; stallions</td>
<td></td>
</tr>
<tr>
<td>R – oct 17</td>
<td>feeding broodmares &amp; stallions</td>
<td>feed ID quiz</td>
</tr>
<tr>
<td>T – oct 22</td>
<td>DISCUSSION – case study #3</td>
<td>case study #3</td>
</tr>
<tr>
<td>R – oct 24</td>
<td>feeding growing horses</td>
<td></td>
</tr>
<tr>
<td>T – oct 29</td>
<td>EXAM 2</td>
<td></td>
</tr>
<tr>
<td>R – oct 31</td>
<td>feeding growing horses</td>
<td></td>
</tr>
<tr>
<td>T – nov 5</td>
<td>pasture as a feed source</td>
<td></td>
</tr>
<tr>
<td>R – nov 7</td>
<td>DISCUSSION – case study #4</td>
<td>case study #4</td>
</tr>
<tr>
<td>T – nov 12</td>
<td>clinical nutrition</td>
<td></td>
</tr>
<tr>
<td>R – nov 14</td>
<td>clinical nutrition</td>
<td></td>
</tr>
<tr>
<td>T – nov 19</td>
<td>clinical nutrition</td>
<td></td>
</tr>
<tr>
<td>R – nov 21</td>
<td>DISCUSSION – case study #5</td>
<td>case study #5</td>
</tr>
<tr>
<td>T – nov 26</td>
<td>DISCUSSION – case study #5</td>
<td></td>
</tr>
<tr>
<td>R – nov 28</td>
<td>THANKSGIVING – no class</td>
<td></td>
</tr>
<tr>
<td>T – dec 3</td>
<td>course wrap-up</td>
<td></td>
</tr>
<tr>
<td>R – dec 12</td>
<td>EXAM 3 – 3:00-5:00pm</td>
<td>ANS room 156</td>
</tr>
</tbody>
</table>

* Lecture topics and Exam/Assignment due dates are subject to change. If any changes are made, you will receive at least 1 week notice.