UTRGV

DEPARTMENT OF HEALTH AND BIOMEDICAL SCIENCES

NUTR 2315 INTRODUCTION TO VETERINARY NUTRITION

FALL 2019

Instructor: Dr. Jameela Banu
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Telephone: 956-665-3222
E-mail: Jameela.banu@utrgv.edu
Office hours: Tuesday and Thursday 10:00 AM - noon or by appointment ONLY
Term: Fall 2019

Method of Delivery: Online

Textbook and/or Resource Material

Course Description and Prerequisites –
This course will introduce the students to the basic concepts of nutrition for animals. Information on the anatomy of animal gastrointestinal tract, methods of analysis for nutrients, measurements of feed and nutrient utilization, nutrient metabolism, feed preparation, diet formulations, factors affecting feed consumption, specific feed for beef cattle, dairy cattle, sheep, goats, swine, poultry, horses, cats, dogs, fish and zoo animals will be shared.

Prerequisites:
Course or Test: BIOL 1406, Minimum Grade of C, May not be taken concurrently.
Course or Test: BIOL 1407, Minimum Grade of C, May not be taken concurrently.
Course or Test: BIOL 2401, Minimum Grade of C, May not be taken concurrently.
Course or Test: BIOL 2402, Minimum Grade of C, May not be taken concurrently.

Learning Outcomes
Upon successful completion of this course, students will:
1. Be familiar with the GI tract of different animals.
2. Explain the different analytical methods to measure nutrients.
3. Describe the measurements of feed and nutrient utilization.
4. Explain nutrient metabolism.
5. Formulate feed preparation and diet formulation for different animals including pets, farm and zoo animals.

Learning Objectives for Core Curriculum Requirements:
Students taking this course will learn about the GI tracts of different animals and nutrient metabolism. At the end of the course they will be able to formulate diets for different animals. They will also acquire knowledge about the factors that affect feed consumption.

Objectives: Critical Thinking, Communication, Empirical & Quantitative Skills, Teamwork

Critical thinking: is a way of examining and exploring issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Communication:
Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

Empirical and Quantitative Skills: Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Teamwork: is the ability of individuals to work together to accomplish a task or produce a product in a way that is respectful and values the strengths of the members of the team.

Grading Policies
Your course grade will be determined as follows:

- Discussion 10 pts
- Participation (Every week) 20 pts
- Exams (3) 50 pts
- Assignment (1) 20 pts
- Total 100 pts

Participation will be assessed based on a quiz at the end of every week's learning information. This quiz will have questions from the chapter(s) and any videos, reading materials assigned for the posted online.

For any questions regarding the Bb and online problems you can get help from COLTT – COLTT Help Desk Information:

**COLTT Office Hours** Monday - Friday, 7:30 a.m. - 6:00 p.m.

**Location**
- Brownsville Campus
- Rusteberg 108
- (956) 882-6792

- Edinburg Campus
- Education Complex 2.202
- (956) 665-5327

**Submit a Ticket**
[utrgv.edu/coltthelp](http://utrgv.edu/coltthelp)

**Website**
[www.utrgv.edu/online](http://www.utrgv.edu/online)

Exams and quizzes will have multiple choice, true or false, fill in the blanks, and match the following questions.

The point range for each letter grade is given below:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
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<td>80-89</td>
<td>B</td>
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<tr>
<td>70-79</td>
<td>C</td>
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<tr>
<td>60-69</td>
<td>F</td>
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</table>
Quizzes and exams will be online. Quizzes and exams will be open on the day of the quiz or exam. The dates are specified in the syllabus. You have to download Respondus lockdown browser in your computer to take the tests online.

e. Grades are based on performance ONLY. This is measured simply and numerically.

Other Course Information:

a) Contacting the Professor:
You can contact me during the office hours. You can email or come in person to my office. If you want to come in person please email me before coming, so I will be better prepared to answer your questions and our time is efficiently utilized. PLEASE GIVE ME 24 - 48 HRS TO RESPOND TO YOUR E-MAIL.

b) Policy for make up exams/quiz:
- If you know you will be absent for a test, you must contact me at least one week in advance to make arrangements to take the test at another time.
- If you can provide written documentation of a medical or other emergency, on the day of the test, I will consider a make-up test.
- A grade of zero will be entered for missed tests.

c) Please look out for announcements that are posted in Blackboard

Suggestions for success:
- Review any videos posted and take notes.
- Read the chapter thoroughly.
- If there are any questions contact the instructor.
- Attend all the participation quizzes, quizzes and exams.

University calendar:
Fall 2019 Term (August 26 – December 12)
Apr. 1 (Mon.) Registration Begins
Aug. 21 (Wed.) Payment Due Last day to join a waitlist
Aug. 23 (Fri.) Last day to withdraw (drop all classes) and receive a 100% refund
Aug. 26 (Mon.) Fall classes begin
Aug. 29 (Thurs.) Last day to add a class or register for Fall classes
Aug. 30 (Fri.) Last day to withdraw (drop all classes) and receive an 80% refund
Sep. 2 (Mon.) Labor Day Holiday. No classes.
Sep. 9 (Mon.) Last day to withdraw (drop all classes) and receive a 70% refund
Sep. 11 (Wed.) Census Day (last day to drop without it appearing on the transcript)
Sep. 16 (Mon.) Last day to withdraw (drop all classes) and receive a 50% refund
Sep. 23 (Mon.) Last day to withdraw (drop all classes) and receive a 25% refund
Nov. 13 (Wed.) Last day to drop a class (grade of DR) or withdraw (grade of W)
Nov. 28-29 (Thurs.-Fri.) Thanksgiving Holiday. No classes.
Dec. 5 (Thurs.) Study Day. No classes.
Dec. 6-12 (Fri.-Thurs.) Final Exams Dec. 12 (Thurs.) Fall classes end; Official last day of the term
Dec. 13-14 (Fri.-Sat.) Commencement Exercises
Dec. 16 (Mon.) Grades Due at 3 p.m.
### Calendar of Activities (Tentative)

**NUTR 2315 Introduction to Veterinary Nutrition**

**Fall 2019**

**Online course**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Chapter</th>
<th>Topic</th>
<th>Chapters for quiz/exam</th>
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<tbody>
<tr>
<td><strong>Week 1</strong></td>
<td>1</td>
<td>Introduction, Concepts of nutrition</td>
<td>1 - 3</td>
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<tr>
<td>Aug 26&lt;sup&gt;th&lt;/sup&gt; – Sep 1</td>
<td>2</td>
<td>Animal Nutrition: Its role in Modern Agriculture and Society</td>
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<td></td>
<td>3</td>
<td>Common methods of analysis for Nutrients and feedstuffs</td>
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<tr>
<td><strong>Sep 1&lt;sup&gt;st&lt;/sup&gt;</strong></td>
<td>END OF WEEK PARTICIPATION QUIZ 1</td>
<td>1 - 3</td>
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<td></td>
<td></td>
<td>Discussion - Introductions</td>
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<tr>
<td><strong>Week 2</strong></td>
<td>4</td>
<td>The gastrointestinal tract and Nutrition</td>
<td>4 - 5</td>
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<tr>
<td>Sep 2&lt;sup&gt;nd&lt;/sup&gt; – Sep 8&lt;sup&gt;th&lt;/sup&gt;</td>
<td>5</td>
<td>Measurement of feed and Nutrition utilization</td>
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<tr>
<td><strong>Sep 8&lt;sup&gt;th&lt;/sup&gt;</strong></td>
<td>END OF WEEK PARTICIPATION QUIZ 2</td>
<td>4 - 5</td>
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<tr>
<td><strong>Week 3</strong></td>
<td>6</td>
<td>Water</td>
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<tr>
<td>Sep 9&lt;sup&gt;th&lt;/sup&gt; – Sep 15&lt;sup&gt;th&lt;/sup&gt;</td>
<td>7</td>
<td>Carbohydrates</td>
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<td>8</td>
<td>Lipids</td>
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<td>9</td>
<td>Proteins and Amino acids</td>
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<td>10</td>
<td>Energy Metabolism</td>
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<td><strong>Sep 15&lt;sup&gt;th&lt;/sup&gt;</strong></td>
<td>END OF WEEK PARTICIPATION QUIZ 3</td>
<td>6-10</td>
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<td><strong>Week 4</strong></td>
<td>11</td>
<td>Macromineral elements</td>
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<tr>
<td>Sep 16&lt;sup&gt;th&lt;/sup&gt; – Sep 22&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>12</td>
<td>Micro (trace) mineral elements</td>
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<td>13</td>
<td>Mineral toxicities and organic toxins</td>
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<td>In the food chain</td>
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<td>14</td>
<td>Fat-soluble vitamins</td>
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<td>15</td>
<td>Water soluble vitamins</td>
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<td><strong>Sep 29&lt;sup&gt;th&lt;/sup&gt;</strong></td>
<td>END OF WEEK PARTICIPATION QUIZ 4</td>
<td>11-15</td>
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<td><strong>Week 6</strong></td>
<td>16</td>
<td>Regulation of nutrient partitioning</td>
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<tr>
<td>Sep 30&lt;sup&gt;th&lt;/sup&gt; – Oct 6&lt;sup&gt;th&lt;/sup&gt;</td>
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<td>Date</td>
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<tr>
<td>Oct 6th</td>
<td>17  Factors affecting feed consumption</td>
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<td>18  Feeding standards and productivity</td>
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<td>END OF WEEK PARTICIPATION QUIZ 5</td>
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<td>16-18</td>
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<td>Week 7</td>
<td>19  Feedstuffs</td>
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<td>Oct 7th – Oct 13th</td>
<td>END OF WEEK PARTICIPATION QUIZ 6</td>
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<td>Oct 13th</td>
<td>19</td>
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<td>Week 8</td>
<td>20  Feed preparation and processing</td>
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<td>Oct 14th – Oct 20th</td>
<td>EXAM 2</td>
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<td>Oct 21st – Oct 27th</td>
<td>END OF WEEK PARTICIPATION QUIZ 7</td>
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<tr>
<td>Week 9</td>
<td>21  Diet formulations</td>
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<td>Oct 27th</td>
<td>20</td>
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<td>Week 10</td>
<td>22  Beef cattle</td>
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<td>Oct 28th – Nov 3rd</td>
<td>END OF WEEK PARTICIPATION QUIZ 8</td>
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<td>Nov 3rd</td>
<td>23  Dairy cattle</td>
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<td>Week 11</td>
<td>24  Sheep and goats</td>
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<td>Nov 4th – Nov 10th</td>
<td>END OF WEEK PARTICIPATION QUIZ 9</td>
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<tr>
<td>Nov 10th</td>
<td>25  Swine</td>
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<td>Week 12</td>
<td>26  Poultry</td>
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<td>Nov 11th – Nov 17th</td>
<td>EXAM 3</td>
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<td>Week 13</td>
<td>27  Horses</td>
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<td>Nov 18th – Nov 24th</td>
<td>END OF WEEK PARTICIPATION QUIZ 10</td>
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<td>Nov 24th</td>
<td>28  Dogs and cats</td>
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<td>Week 14</td>
<td>29  Fish</td>
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<td>Nov 25th – Dec 1st</td>
<td>END OF WEEK PARTICIPATION QUIZ 11</td>
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<tr>
<td>Dec 1st</td>
<td>30  Zoo animals</td>
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<td>END OF WEEK PARTICIPATION QUIZ 11</td>
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<td>29-30</td>
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<tr>
<td>Dec 9th</td>
<td>Final Examination ONLINE Comprehensive (all chapters)</td>
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