**Feeds and Feeding – On line and Dual credit - Fall 2018**

**NEBRASKA COLLEGE OF TECHNICAL AGRICULTURE**

**Division:**  Agriculture Production Systems- Animal Science/ Ag Education

**Course Number:** ASI 2203

**Credit Hours:** 3

**Instructor:** DAVE SMITH, associate professor emeritus

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**DIVISION MISSION APS**-Animal Science/ Agriculture Education division is dedicated to embracing innovation and respecting tradition for the agriculture industry and related sciences.

**ASI 2203-Feeds & Feeding meets the following APS Program Outcomes:**

1. Students will be able to effectively communicate in oral and written form.

2. Students will be able to gather, assimilate and process information to reach sound logical conclusions.

3. Students will be able to exhibit required knowledge and skills consistent with their chosen field of study.

**Learning outcomes specific to Livestock Industry Management Options.**

1. Students will be knowledgeable in the areas of modern livestock husbandry and management Practices.

**ASI 2203 – Feeds and Feeding supports the following General Education Outcomes:**

1. Information Literacy

2. Quantitative Literacy

3. Problem Solving

**Student Learning Outcomes:**

1. List feedstuffs according to classification and describe the general nutrient composition of each classification of feedstuff.
2. Identify common feeds used in livestock rations.
3. List common processing methods and the advantages and disadvantages of each for feedstuffs used in livestock feeding.
4. Understand dry matter versus as fed comparisons of feedstuffs and feed nutrients.
5. Be able to find and utilize the nutritive values of feeds listed in an NRC feed table.
6. Using the NRC animal requirements tables evaluate rations for dry matter, total digestible nutrients, crude protein, calcium, and phosphorus to determine if requirements are being met using a ration checking procedure.
7. Calculate ration costs per pound, per head, and per ton as well as a cost per pound of gain.
8. Be able to understand the information given on a livestock feed tag.
9. Know what the common feed additives and implants are, how they are classified, used, and regulated and the advantages and disadvantages of using additives and implants.

**Course Prerequisite:** ASI 1253 Nutrition is recommended

**COURSE DESCRIPTION :**(Pre req.: ASI 1253 Nutrition recommended) The study of feedstuffs, feed processing, and nutrient digestion and utilization by livestock. Lab will include feed identification, feed evaluation, moisture determination and digestion of feeds.

**TEXT: Required**:

*Animal Feeding and Nutrition*, Eleventh Edition, Marshall H. Jurgens,

Kristjan Bregendahl, Josie Coverdale, and Stephanie Hansen

**References:**

Basic Animal Feeding and Nutrition by Church and Pond

Feeds and Nutrition by Ensiminger and Holystone

Feeds and Feeding by Collation

**CANVAS LEARING MANAGEMENT SYSTEM:**

Students will receive an ID and password from UNL to access the Canvas Learning Management system available on the NCTA web site.

**COURSE OUTLINE**

1. **Feedstuffs**
2. Carbonaceous concentrates
3. Proteinaceous concentrates
4. Proteinaceous roughages
5. Carbonaceous roughages
6. Mineral and vitamin sources
7. **Feed Preparation**
8. **Feed Additives and Implants**
9. **Problems (dispersed throughout the course)**
10. Moisture & dry matter
11. Nutrient concentrations on Dry and As Fed basis
12. Protein and urea in rations
13. Feed tag information
14. Ration evaluation & cost

**Assessment:**

Purpose of Academic Assessment

Academic assessment is the process for ongoing improvement of student learning and success. The assessment program at Nebraska College of Technical Agriculture has four specific interrelated purposes:

1. To improve Student learning
2. To improve teaching strategies
3. To document success and identify opportunities for improvement
4. To provide evidence for institutional effectiveness

This is a self-paced class intended to be completed in a 16 week semester. It is up to the student to prepare for each test. The timed tests are closed book non timed tests are open book. Students should plan to spend two weeks covering the materials for each test taking a test every other week. Test will be made available on Canvas 5 days prior to the due date and will consisting of matching, multiple choice, multiple answer, and true false questions. If the internet is disrupted during the taking of a test contact the instructor and at his discretion the test may be retaken. Dual credit on site instructors have the option of setting the test dates and may be asked to verify internet interruption issues.

Criteria for Assessment:

There will be 8 graded tests, an ID quiz, 3 discussion questions and a comprehensive final. The comprehensive final has only two questions involving calculations of water and dry mater, no other calculations will be required. Final grades are determined by the total number of points earned divided by the total available points, resulting in a percentage. The grading scale is shown below.

Points available:

Test #1 Concentrates 82 points closed book timed test

Test #2 Roughages & additives 66 points closed book timed test

Feed ID Quiz 40 points closed book timed quiz

Test #3 Feedstuffs exercise 50 points open book

Test #4 Water problems 32 points open book

Test #5 Feed processing 42 points closed book timed test

Test #6 Nitrogen, urea & feed tags 40 points open book

Test #7 Feed additives 50 points closed book timed test

Test #8 Ration evaluation exercise 40 points open book

Discussion questions 15 points

Final, comprehensive 152 points closed book timed test

609 total

The instructor reserves the right to change the points as conditions warrant.

***Letter Range Points***

**A+ 100.0 – 100.0 4.00**

**A 90.0 – 99.9 4.00**

**A- 86.7 – 90.0 3.67**

**B+ 83.3 – 86.7 3.33**

**B 80.0 – 83.3 3.00**

**B- 76.3 – 80.0 2.67**

**C+ 73.3 – 76.3 2.33**

**C 70.0 – 73.3 2.00**

**C- 66.7 – 70.0 1.67**

**D+ 63.3 – 66.7 1.33**

**D 60.0 – 63.3 1.00**

**F 00.0 – 60.0 0.00**

**Academic Honesty**: Students are expected to conduct themselves in conformity with the highest standards with regard to academic honesty. Violation of college, state, or federal standards with regard to plagiarism (see below), cheating, or falsification of official records will not be tolerated. Students violating such standards will be subject to disciplinary action the first offense will result in a dismissal from class and the second offense a dismals from the institution.

**Identity Verification:**

Dual credit students will be required to provide the name and contact information for a person within the school system who will be proctoring their test. This can be an Ag. Teacher, Guidance counselor, or other teaching personal. Other on line students will be provided with a password for each test when they contact the instructor to open each test.

**Suggested study and testing schedule**

**Week one:** Email instructor to verify Canvas access and link to Feeds and Feeding class

Review the syllabus

Take the pre test

Read chapter 3 in the text, pages 119-127 & 212-229

Open the course modules folder & view the file called materials for test #1

View the lecture on carbonaceous concentrates 35 minutes

View the lecture on proteinaceous concentrates 50 minutes

**Week two:** Use the study guide in the syllabus folder to prepare for test #1

Take test #1 Due by September 7

Read in chapter 3 pages229-260

**Week three**: In the materials for test #2 view the lecture on feed grain by-products 10 minutes

Start the lecture on roughages 30 minutes

Finish the lecture on roughages 30 minutes

**Week four:** Start exercise V & VI in module 3

Read chapter 3 pages 260-265

View the lecture on nutritive additives 15 minutes

Use the study guide to prepare for test #2

Take test #2 Due by September 21

**Week five:** Finish exercise V & VI

Take the feed ID quiz Due by September 28

Take test #3 Due by October 5

**Week six**: In the materials for test #4 view the lecture over water problems 21 minutes

For additional help read pages 93 -96

Do the practice water problem

View the lecture on “As Fed & DMB” 14 minutes

**Week seven:** Do the ration work sheet

Take test #4 Due by October 19

**Week eight:** Read pages 265-276

In the materials for test #5 view the lecture on feed processing 38 minutes

View the lecture on feed mixing 22 minutes

Watch the feed mixing videos

**Week nine:** Use the study guide to prepare for test #5

Take test #5 Due by November 2

**Week ten:** Read chapter 5

In the materials for test #6 view the lecture on nitrogen, protein, urea, and feed tags 25 minutes

Do the problems on nitrogen, protein, and urea

Do the feed tag problem

**Week eleven:** Review the problems using the keys

Take test #6 Due by Novembr 16

**Week twelve:** Read chapter 6

In the materials for test #7 view the lecture over Implants 49 minutes

Watch the implant video 5 minutes

Read the information on Beta Agonist, Antibiotics, and the 2016 update on the FDA ruling

**Week thirteen:** Use the study guide to prepare for test #7

Take test #7 Due by November 29

In the materials for test #8 view the ration cost and evaluation lecture 14 minutes

Do the ration cost problem

**Week fourteen:**  Do ration evaluation practice problem 1

Do ration evaluation practice problem 2

**Week fifteen:** Do ration evaluation practice problems 3 & 4

Take test #8 Due by December 7

**Week sixteen:**  Review all the study guides

Take the comprehensive final Due by December 13

Do the class evaluation

**COMMUNCATION:** The online instructor is available through e-mail or phone. Canvas can also be used through the discussion questions. Please limit phone calls to normal working hours. Allow 24 hours for responses to e-mails during the week and 48 hours over weekends and holidays. Whenever possible I will respond as soon as I can.

**Technical support resources:**

**Computer Help Center.** The Information Technology Services Computer Help Center at the University of Nebraska-Lincoln provides NCTA students with 24 hour access to help with issues such as accessing E-mail and Canvas and dealing with computer problems. (Web site: <http://its.unl.edu/helpcenter>, E-mail: [mysupport@unl.edu](mailto:mysupport@unl.edu), Phone: toll-free (866) 472-3970)

**NCTA Computer Technology Assistance.** The NCTA director of instructional technology and telecom is available to assist with hardware, software and peripheral acquisition, set up and troubleshooting. Contact Justin Baugher at 308-367-5210, or email: [justin.baugher@unl.edu](mailto:justin.baugher@unl.edu)

[Student Quick Start Videos](https://canvas.unl.edu/courses/1/pages/student-quick-start-video-tour) For Canvas

[**https://canvas.unl.edu/courses/1/pages/student-quick-start-video-tour**](https://canvas.unl.edu/courses/1/pages/student-quick-start-video-tour)

**Students with disabilities resources:**

**Student Services Center.** NCTA is committed to equal access in education. The Disability Services Center assists online students with questions regarding eligibility and applying for accommodations, testing for learning disabilities, and development of Individualized Education Program (IEP) agreements. Financial aid counseling and assistance is also available online through telephone, email, Skype or Adobe connect. Contact Kevin Martin: 308-367-5217, or email: [Kmartin4@UNL.edu](mailto:Kmartin4@UNL.edu).

**Office 365 resources:** <https://www.microsoft.com/en-us/Accessibility/office>

**Windows 7,8 and 10 resources:** <https://www.microsoft.com/en-us/Accessibility/windows>

**Windows Media Player resources:** <https://www.microsoft.com/en-us/Accessibility/windows>

**Adobe Flash Player resources: http://www.adobe.com/accessibility/products/flashplayer.htm**

**Adobe Acrobat Reader:** [**http://www.adobe.com/accessibility/products/reader.htm**](http://www.adobe.com/accessibility/products/reader.htm)

**Canvas resources:** <https://community.canvaslms.com/docs/DOC-2061-accessibility-within-canvas>

**TITLE IX:**

Title IX is a Federal civil rights law that prohibits discrimination on the basis of sex or gender in all programs and activities. The Nebraska College of Technical Agriculture will not discriminate on grounds of race, color, sex, national origin, or any other factor prohibited by law in providing any educational or other benefits or services. For more information or to report a Title IX incident, please contact Jennifer McConville, Title IX Coordinator, 308-367-5259, Ag All Room 25**.**