**FEEDS AND RATION FORMULATION**

(AVS 306)

**Spring 2020**

**Course webpage: http://** **www.webpages.uidaho.edu/avs306/**

**1. Prerequisite:** AVS 305 (or a similar “basic animal nutrition” course)

**2. Instructor:** Dr. Pedram Rezamand     [rezamand@uidaho.edu](mailto:rezamand@uidaho.edu) Ag Science 215    (208) 885-5392

**Teaching Assistants:**

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**3. Time and place:**

Lecture: M, W, F, 10:30 to 11:20 a.m.    Ag Sci 204 Lab: Wednesday, 1:30 to 3:20 pm or 3:30 to 5:20 pm,    Ag Sci 104 & 204

**4. Textbook:**  Animal Feeding & Nutrition (11th Edition: M. Jurgens; K. Bregendahl; J. Coverdale; S. Hansen. ISBN 978-0-7575-9113-6

***A NEW TEXTBOOK: available at the UI Bookstore***

**5.** **Final Exam:** According to <https://www.uidaho.edu/registrar/classes/finals/spring>, the final exam will be Monday, May 11 at 10:15 am. Please double-check the date/time.

**6. Course objectives:**

1. To understand the nutrient requirements of livestock to meet specific requirements, b) To understand the characteristics of feedstuffs and their use in ration formulation, c) Apply your knowledge of nutrients required by livestock to ration formulations so that specific nutrient requirements are met, d) To apply understanding of nutrition to prudent nutritional management, e) Have fun and get interested in livestock feed management for a lifetime.

**7. Examination procedure:**

a) Three hourly exams (including Final exam) will be given at approximately 5 week intervals throughout the semester. Exams will be worth 100-150 points each AND will be multiple-choice, short essays and comprehensive answers. ***Questions will often require students to apply information they obtain in both lecture and lab***.

b) Approximately six quizzes will be given that are 20 points each. The quizzes will require students to apply the information that they most recently learned in lecture and the lab. A 7th quiz might be given, which would allow teaching team to drop your lowest quiz score.

c) A final examination covering all material with total possible points of 150. This exam will be designed for having the student solve or provide an answer to complex, comprehensive problems.

d) Assignments on ration formulation will be given in lab. Each lab assignment will be worth ~ 15 points and will be due the following Monday at class time. Assignments may be turned in late; however, points will be deducted as we will often discuss the assignments during the lecture period. Also, lab assignments will be graded and returned to the students on following Monday and that lab material may be included on the next lab quiz.

e) Total possible points will be established by totaling the points on unit exams, quizzes, assignments, participation, and the final exam as shown in the following section:

Total points

Hourly exams (2 × 100) 200

Quizzes (6 × 20) 120

Final exam (1 × 150) 150

Assignments (12 × 15) 180

Participation 100

Total 750

**8. Attendance Policy:**

Students are expected to attend all lectures and lab sessions; absence will have direct negative impact on final grade. The point is quite simple: attend the lecture/lab, and you will do just fine !

Each lecture you will have points (~2 points/lecture) to gather. If you miss it, you will not earn the points. If it is a University-excused absence, we will do our best to facilitate any missed homework assignment, quizzes, etc.

There will be opportunities to earn extra points (and offset lost points just in case you lost some points because you missed class or lab) such as attending AVS graduate seminars and other nutrition-related seminars, conferences, and talks. Please communicate with the teaching team so we can work together and set these up for you.

**9. Grading Procedure**

(Grade Percentile):

A 90; B 80; C 70; D 60; F <60

 AVS 306 -- FEEDS AND RATION FORMULATION (4 cr). Application of principles of nutrition to ration formulation for livestock; evaluating feedstuffs for use in ration formulation. Three lectures and one 2-hour lab per week. Prerequisite: **AVS 305** (or a similar course).

 I. **Review of Basic Nutrition and Nutrients**

II.  **Evaluation of Feedstuffs**

  A. Chemical, B. Biological (Growth, Digestion, Metabolism), C. Microbiological, D. Economic evaluation

III.  **Feedstuffs Used in Livestock Rations**

  A. Forage

  B. Energy feeds

  C. Protein feeds

  D. Mineral and vitamin supplements

  E. Feed additives

 IV. **Ration Formulation**

* + Beef cattle
  + Sheep
  + Horses
  + Dairy Cattle

**DISABILITY SUPPORT SERVICES REASONABLE ACCOMMODATIONS:**  
Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through the Center for Disability Access and Resources located in the Bruce M. Pitman Center, Suite 127 in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course.

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* Email: [cdar@uidaho.edu](mailto:cdar@uidaho.edu)
* Website: [www.uidaho.edu/current-students/cdar](https://uidaho.us6.list-manage.com/track/click?u=e8b26a2bfdf3335ca7d0c9eef&id=01e33d905d&e=d0376f4cca)