ADVS 6500
Animal Nutrition Research Techniques
Course Outline and Schedule

Instructor:
Dr. Randy Wiedmeier — Office: 256 Ag Sci
E-mail: rdw@cc.usu.edu — Phone: 797-2151

Text:
In leu of a textbook, students will receive handouts associated with each procedure along with research articles and technical bulletins. These should be kept in a 3-ring binder.

Grade:
Each student will receive five (5) samples that will be used as subjects of analysis during the first portion of the semester. Along with each handout will be a data collection/calculation sheet. This sheet will be handed in when each procedure is completed. Fifty percent of your grade will be based on the quality and accuracy of these sheets. The other 50% of your grade will be based on your performance on the two midterm quizzes and the final quiz. The final quiz will not be comprehensive but will cover the final 1/3 of the course material.

Weekly data collection/calculation sheets
10 x 30 pts each = 300 points

Quizzes
3 x 100 pts each = 300 points

Grade will base on percentage of points earned:

A = 90-100%	C+ = 76-79%
B+ = 86-89%	C = 70-75%
B = 80-85%	

Teaching Assistant:
Paul Schmidt. We will begin each lab session with lecture material and procedures will be conducted in the laboratory on five (5) samples assigned to each student. Paul will be there to aid you and answer any questions that you might have.

Date	Routine Analysis of Feeds and Biological Samples
September	The Proximate Analysis
7	Dry Matter Analysis (Oven-Dry Method)
14	Organic Matter Analysis (Total Ash)
21	Neutral Detergent Fiber (NDF) Analysis
	Acid Detergent Fiber (ADF) Analysis
28	Acid Detergent Lignin (ADL) Analysis
October	**Midterm Quiz (100 pts)**
5	Crude Fat (Ether Extract) Analysis
12	Crude Protein Analysis
19	Bomb Calorimetry
26	In Vivo Apparent Nutrient Digestibility Trial
November	**Midterm Quiz (100 pts)**
2	In Vitro Nutrient Digestibility
9	Rumen Microbiology – Differential Protozoa Counts
16	Rumen Microbiology – total Versus Fibrolytic Bacteria Counts
23	Thanksgiving Break
December	Gas Chromotography
14	Final Quiz (100 pts)
	Aflotoxin Analysis