

Syllabus
ANSC 675 – Rumenology
Spring Semester, 2020

Instructor: Dr. Phillip Gunter

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Office Hours: by appointment

Lecture: MTWTRF, 9-10:15 a.m. Online.

Suggested Text:

The Ruminant Animal Digestive Physiology and Nutrition. D.C. Church 1988.

Topics to be covered:

Overview of rumenology

Anatomy, rumen development, gut motility, rate of passage, digestion and excretion, intake regulation

Microbiology and microbe role in digestion

VFA production pathways, absorption, VFA utilization post-absorption, energy metabolism, bioenergetics

Ruminal N metabolism, microbial protease and N assimilation, degradability of feed and microbial N

Amino acid requirements for ruminants, amino acid absorption, whole body N utilization

Ruminal lipid metabolism, microbial lipases and saturation mechanisms, microbial lipid synthesis

Postruminal lipid absorption and transport, whole body lipid metabolism and fat deposition

Metabolic problems in ruminants, subacute and acute acidosis, theories and controls, origins and problems of ketosis and bloat

Grading System:

Two 1-h exams 100 points each

Final Exam 100 points

Unless otherwise determined.

Grades are determined by adding all points earned from exams, quizzes and exercises and dividing by the total points possible. There will be approx. 300 (+/-) total points depending on the exercises and quizzes that are done.

GRADING: A (Superior), $\geq 90\%$

B (Good), 80-89%

C (Satisfactory), 70-79%

D (Passing), 60-69%

S (Acceptable), 60%

F (Unacceptable, not passing), $< 60\%$

Hour exams will cover new material given since the previous hour exam. The tentative schedule for exams is:

Exam 1: Thursday, June 5

Exam 2: Friday, June 19

The FINAL EXAM will be 9-11 a.m., Friday, July 1.

Gradebook:

Posted grades are subject to correction if needed, please contact instructor if errors are found or suspected.

Students with Disabilities Who Require Accommodations:

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in Downing University Center A-200. The OFSDS telephone number is (270)745-5004; TTY is (270)745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.