

Course Syllabus
ANS 589 – Microbiology of the Digestive System
Spring Semester, 2014
Meeting times by appointment

Instructor: Dr. Jackie Wahrmund, Assistant Professor of Animal Science
Department of Agricultural Sciences
Room 248
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Office hours: MWF 11:00 – 12:00 and TR 10:00 – 12:00

COURSE INFORMATION

Text: None. Materials will be provided by the instructor.

Course Description: Study of microorganisms of the rumen and hind-gut of mammals, and their contributions to nutrient utilization of the host animal. Other topics will include nutrient metabolism by microbes, species interactions, and techniques for identification of species and populations of microbes.

Student Learning Outcomes: In this course, students will:

- Develop a solid understanding of the microorganisms of the digestive tract of mammals
- Be able to describe how microorganisms contribute to nutrient utilization of mammals
- Be able to identify common digestive tract microorganisms
- Describe how species of microorganisms interact with one another
- Describe techniques to identify species of microorganisms

COURSE REQUIREMENTS

Students will be expected to develop teaching materials for various topics. Topics will be assigned by the instructor, and students must develop materials such as PowerPoints and handouts, as well as quizzes and exams related to these topics. There will be ten topics, each worth 100 points. Students will be graded on the accuracy, clarity, and quality of content. Due dates are to be arranged between students and instructor.

Grading: Total 1000 points

A: 900-1000 points
B: 800-899
C: 700-799
D: 600-699
F: Less than 600 points

UNIVERSITY POLICIES

ADA Statement

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library

Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

**THE FOLLOWING DATES MAY CHANGE AT INSTRUCTOR'S DISCRETION
ADVANCE WARNING WILL BE GIVEN FOR ANY CHANGES**

COURSE TOPICS

- I. Introduction to Microbiology
- II. Bacteria of the Digestive System
- III. Protozoa of the Digestive System
- IV. Fungi of the Digestive System
- V. Interactions of Digestive System Microorganisms
- VI. Microbial Techniques
- VII. Carbohydrate Fermenting Microorganisms
- VIII. Microorganisms Involved in Nitrogen Metabolism
- IX. Microorganisms Involved in Lipid Metabolism
- X. Methanogenic and Acetogenic Bacteria