PRAIRIE VIEW A&M UNIVERSITY

SYLLABUS

ANSC 2533 DAIRY SCIENCES
FALL 2019

Instructor:	**Negusse F. Kidane, Ph.D.**
Section # and CRN:	PO1- ANSC 2533
Office Location:	Agriculture and Business bldg. Room # 316
Office Phone:	936-261-2507
Email Address:	nfkidane@pvamu.edu
Office Hours:	Tuesday and Thursday; 10:00 AM – 3:00 PM (Open door policy)
Mode of Instruction:	Face to Face and Lab
Course Location:	Agriculture and Business Building #111
Class Days & Times:	**Lecture 1:00 pm - 1:50 pm** MWF
Catalog Description:	**ANSC 2533 Dairy Sciences: 3 semester hours**. This dairy Sciences course deals with the basic principles of dairy sciences and covers topics such as anatomy and physiology, breeding and genetics, feeding and nutrition, disease and sanitation, reproductive biology and endocrinology, behavior and welfare and of course analyzing physical and chemical properties of milk from dairy cows/goats, and economic and environmental role of the dairy industry.
Prerequisites:	General animal Sciences
Co-requisites:	None:
Required Texts:	None
Recommended Texts:	Dairy Cattle Science. Howard D Tyler and Enssminger M Fourth Edition Modern Livestock and Poultry Production: Frank B. Flander and James R. Gillepie 9th Edition

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment
1	To impart knowledge relating the dairy animals to its ultimate value as a food product both milk and to some extent meat		
2	Be familiar with dairy terminology, the expected performance of dairy cows and goats raise using good management and husbandry practices, and characteristics of the primary breeds of dairy cattle and goats.		
3	To understand principles underlying the selection of replacement stock for continued genetic improvement in the herd.		
4	To understand dairy cattle and dairy goats reproduction, some management principles for improving reproductive efficiency, and be familiar with modern reproductive technologies		
5	To understand changes in milk composition relative to protein, fat, and carbohydrate contents as lactation stage progresses and understand how		

	these changes affect milk composition and market demand and prices		
6	Know the major components of dairy cattle feeds and be able to compare similarities and differences in feed partitioning and utilization in different physiological status of cows.		

Course Goals or Overview:
A goal of the course is to help students make informed dairy animal agriculture, to develop an attitude of appreciation and respect for the dairy industry and its products of foo, milk, meat veal, and manure,. In addition to the content areas presented here, this goal requires critical thinking skills; an assertive self-disciplined, self-starter that questions the powers to be; has general overview knowledge of the science component of animal agriculture and has an appreciation of agriculture in general.

Course Objectives/Accrediting Body *(NCATE, ABET, NAAB, etc…)* **Standards Met:** *(standards will depend on the course)*
To acquaint students with the knowledge of anatomy and physiology, reproductive biology, dairy technology, feeding, husbandry practices, breeding and genetics, and the performance of farm animals and other objectives or specialized accrediting agency requirements as needed.

Major Course Requirements

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course. Note: See Program Outcomes in True Outcomes
Exams – written tests designed to measure knowledge of presented course material
Exercises – written assignments designed to supplement and reinforce course material
Projects – Literature based assignments designed to measure ability to apply presented course material
Class Participation – daily attendance and participation in class discussions

(points will vary according to instructor's grading system)

Method of Determining Final Course Grade
(*Points will vary according to instructor's grading system***)**

Course Grade Requirement	Value	Final Grade (%)
1) Value of the first 2 exams	15%	30
2) Assignment Term paper/Presentation	10%	10
3) Midterm exam	20%	20
4) Quiz, Exercise, and attendance	10%	10
5) Final exam	30%	30
6) **Total**	100%	**100**

Grading Criteria and Conversion:
A = 90 – 100 pts;
B = 80 – 89 pts;
C = 70 – 79 pts;
D = 60 – 69 pts;
F = 59 pts or below

Note: There will be three written, one-hour exams and a comprehensive one final exam. These exams will consist multiple choices, short answers and essay types. The instructor reserves the right to changes these policies as needed.

ASSIGNMENTS:
Detailed description of Major Assignments information including title, rubrics and due date will be given **Separately and will also posted on ecourse :** [See eCourses online for description]. All assignments Must Be types, Use font size 12.

Course Procedures or Additional Instructor Policies

Task stream

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. At least one of your assignments is **REQUIRED** to be submitted as an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

NOTE: All assignments must be submitted on time, formatting should be 12 font, times new Roman and double spaced. DO NOT COPY OR PLAGIARIZE OTHER STUDENTS ASSIGNMENTS ETC. All assignments can be found in your eCourses online. Turn in all assignments as hard copy in class on the due dates. No cell phones and other class disruptions will not be tolerated

SEMESTER CALENDAR	
Week one through week sixteen	**Course Contents**
Week One **Unit 1**	**Introduction** • Systems of Dairy Production (focus on dairy cattle and dairy goats) • Economic Role of Dairy Cattle and Dairy goats Globally • Overview of US and Texas Dairy Industry
Week Two **Unit 2**	**Introduction to Dairy Science** • History of domestication of dairy cattle and goats • Location and purpose of domestication • Classification of dairy cattle and goats • Scientific Method and Techniques used in Dairy Sciences • History of the U.S Dairy Industry
Unit 3	**Taxonomy and Classification** The purpose of this topic is for students to increase their understanding of how animals are classified and understanding how the biological systems are formed. More focus will be given to • Nomenclature of dairy cows/goats • Types of dairy cows and dairy goats • Distribution of dairy cattle and dairy goats worldwide as well as in the US. • Economic role of dairy cattle/dairy goats in the U.S and Texas

Week Three
Unit 4
	Biological System of The Dairy Cow
	• Digestive system
	  ○ The mouth and esophagus
	  ○ The gastrointestinal tract
	• Reproductive system and urinary system
	  ○ Male Reproductive system
	  ○ Female Reproductive system

Week Four **Unit 5**	• Muscular and Skeletal system • Nervous and Endocrine system • Circulatory system and immune system
	EXAM 1
Week Five –Week six **Unit 6**	**Dairy Cattle Nutrition** • **Principles of Dairy Cattle Nutrition** • Classification of nutrients

	○ Organic nutrients ○ Inorganic nutrients ○ Water as nutrient
Week Seven and Eight **Unit 7**	**Applied Dairy Cattle Nutrition** • Nutrient requirement of Dairy cow ○ Heifers ○ Dry cows ○ Lactating cows ○ Growing calves • Feeds, feeding and grazing management • Ration formulation for dairy cows ○ Heifer, lactating cows and growing calves • Grazing-based dairy and confined dairy systems
	Exam 2
Week Nine and Ten **Unit 8**	• Growth and Development of a Calf • Bone growth • Muscle • Fat growth
Week Eleven **Unit 9**	**Fundamentals of Breeding and Genetics of Dairy Cattle** • Breeds of dairy cattle/dairy goats • Strategies for Genetic Improvements • Selection, culling and mating • Assisted Reproductive Technology in the dairy industry
Week Twelve **Unit 10**	**Dairy Cattle Farm Management** • Dairy cow production cycles from birth to dry period • Managing heifers • Managing bulls • Animal Welfare and Health
	Exam 3
Week Thirteen **Unit 11**	**Reproductive Biology of Dairy cattle** • Reproductive management of dairy cattle • Milk synthesis and secretion • Milk Physical and chemical properties • Milk chemistry (composition and structure) Milk Nutritive Values
Week Fourteen **Unit 12**	**Processing of Dairy Products** • Fluid Milk processing and marketing • Processing milk derived products • Dairy safety and quality • Dairy microbiology • **Dairy Cow Diseases and Disorders**
Week Fifteen **Unit 13**	**Dairy Production and Environment** • Pathogenic Microorganisms in Milk • Hygiene, Sanitation and disinfection • Manure Managements
	Dairy Sciences and Technology • Housing and Equipment • Milking Parlors • Automatic milking process and equipment • Safety in the dairy industry and Personal Protective Equipment
Week Sixteen	Class Presentations Course Review
	FINAL EXAM

Student Support and Success

John B. Coleman Library
The library and its partners have as their mission to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service and to support the University's core values of access and quality, diversity, leadership, relevance, and social responsibility through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. https://www.pvamu.edu/library/ Phone: 936-261-1500

The Learning Curve (Center for Academic Support)
The Learning Curve offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Learning Curve is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library Rm. 207F. Phone: 936-261-1561

The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS)
The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library Rm. 306. Phone: 936-261-1040

Writing Center
The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Students taking on-line courses or courses at the Northwest Houston Center or College of Nursing may consult remotely or by email. Location: Hilliard Hall Rm. 121. Phone: 936-261-3724.

Student Counseling Services
The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and provides assistance to students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Owens-Franklin Health Center Rm. 226. Phone: 936-261-3564

Testing
The Department of Testing administers College Board CLEP examinations, the HESI A2 for pre-nursing majors, LSAT for law school applicants and MPRE for second-year law students, the Experiential Learning Portfolio option, the Texas Success Initiative (TSI) Assessment, which determines college readiness in the state, and exam proctoring, among other service such as SAT and ACT for high school students. Location: Delco Rm. 141. Phone: 936-261-4286

Office of Diagnostic Testing and Disability Services
As a federally mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include: learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring of non-standardized test administrations, ASL interpreters, ALDs, digital recorders, livescribe, Kurtzweil, and a comprehensive referral network across campus and the broader community. Location: Evans Hall Rm. 317. Phone: 936-261-3585

Veteran Affairs

Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall Rm. 323. Phone: 936-261-3563

Office for Student Engagement
The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development and campus governance. Location: Memorial Student Center Rm. 221. Phone: 936-261-1340

Career Services
Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Evans Hall Rm. 217. Phone: 936-261-3570

University Rules and Procedures

Disability Statement (Also See Student Handbook):
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 believe you have a disability requiring an accommodation, please contact Disability Services, in Evans Hall, Room 317, or call 936-261-3585/3.

Academic Misconduct (See Student Handbook):
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of Academic Dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.

2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.

3. Fabrication: use of invented information or falsified research.

4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic Misconduct (See Student Handbook)
The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. The Dean of Students under nonacademic procedures will adjudicate such incidents.

Sexual Misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Title IX Statement
Prairie View A&M University (PVAMU) is committed to supporting students and complying with the Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of sex- or gender-based discrimination, including sexual harassment, sexual assault or attempted sexual assault, we encourage you to report it. While you may talk to a faculty member about an incident of misconduct, the faculty member must report the basic facts of your experience to Ms. Alexia Taylor, PVAMU's Title IX Coordinator. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Title IX Coordinator is designated to handle inquiries regarding non-discrimination policies and can assist you with understanding your options and connect you with on- and off-campus resources. The Title IX Coordinator can be reached by phone at 936-261-2123 or in Suite 013 in the A.I. Thomas Administration Building.

Class Attendance Policy (See Catalog for Full Attendance Policy)
Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or Internet.

Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University's attendance policy in each course syllabus.

Student Academic Appeals Process
Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

TECHNICAL CONSIDERATIONS

***Minimum* Recommended Hardware and Software:**
- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups in the Web browser preferences

Participants should have a basic proficiency of the following computer skills:
- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

***Netiquette* (online etiquette):**
Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

***Technical Support*:**

Students should go to https://mypassword.pvamu.edu/ if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

***Communication Expectations and Standards*:**

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The instructor will determine the exact use of discussion.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it/they should be copied and pasted to the discussion board.