

Syllabus
AGR 380
Technical Management of Dairy Cattle

380 Technical Management of Dairy Cattle (4) I. Prerequisites: AGR 125, 126 and 321. History, economics and nutritional importance and trends associated with the dairy industry including systems of selecting, breeding, feeding, sanitation, housing, marketing and management for financial success emphasizing both the cow and herd management.

Purpose of Course:

- A. Develop an appreciation of the dairy industry.
 - 1. Economic Importance
 - 2. Nutritional
 - 3. Products
 - 4. Pricing
- B. Understanding the cow as a milk producing unit.
 - 1. Breeds
 - 2. Milking Synthesis
 - 3. Feeding Systems
 - 4. Breeding & Reproductive Mgt.

Text and Supplemental Material:(Lecture Outline needs to be purchased at bookstore)

- A.
 - 1. Lecture outline provided by Dr. Britt
 - 2. Hoard's Dairy pamphlets available in class.
- B. Supplementary Materials:
 - 1. Dairy Cattle: Principles, Practices, Problems & Profit. Bath, Dickinson, Tucker, Appleman. 3rd Ed. 1985, Lea & Febiger.
 - 2. Principles of Dairy Science, Schmidt, Van Vleck & Hutjens, 1988
 - 3. Class handouts.
 - 4. Extension Service Publications
 - 5. Hoard's Dairyman(not to be removed from Rm 19)

Teaching Procedure:

- A. Class meets lecture 2 1/2 hours per week and laboratory 2 hours.
- B. Lecture is a discussion of current practices and problems.
- C. The laboratory is a combination of several methods:
 - 1. Work and demonstration on Stateland (including Husbandry Skills)
 - 2. Classroom exercises.
 - 3. Field Trips
 - 4. Applicable films.

Evaluation & Test:

A. Basis of grade	
1. Lecture quizzes	400
2. Lab midterm	100
3. Final lab	100
4. Lecture final (comp)	200
5. Journal	100 (approx.)
6. Assignments & Farm plan	100 (approx.)
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	1,000 points

NOTE: All exams to be taken when scheduled. If you miss a scheduled exam for any reason you must clear the reason with the instructor before the date of the exam and a comprehensive make-up will be given at 7 a.m. April 28.

- B. Grades may be adjusted at the end of course.
- C. Regular attendance is expected. There will be an attempt to allow make-up work on daily assignments when the absence is documented with an acceptable excuse.
- D. Students will be counseled as to progress and grades throughout term and those experiencing difficulties will be counseled on an individual basis. At least two exams will be returned before mid-semester (March 4)
- E. Evaluation and Test Schedule

Quiz #1	- January 27
Quiz #2	- February 22
Laboratory Midterm	- March 3
Quiz #3	- March 24
Quiz #4	- April 21
Laboratory Final	- April 28 (12:30-3:00)
Final Exam (Comp)	- May 3(8:00-10:00)

* You will be assigned 4 current topics in the dairy industry which you will research and write a 1 ½ - 2 page research paper exclusive of the reference page. This must be on a word processor and include a minimum of 4 references (from 2002 forward). The references must be edited in a form similar to the Journal of Animal Science. These are due on Thursday Feb 3, February 24, March 24, and April 21. We will discuss these during the laboratory during which you may be expected to lead the discussion.

Schedule for discussion paper

Assigned	Report due	Topic
January 13	February 3	Milk's role in human nutrition
February 3	February 24	Mastitis control or new milk packaging
February 24	March 31	BST use in dairy
March 24	April 21	Use of Rumensin for lactating cows

Paper to be turned in at end of class of date report due.

F. Course Outline

January 11	Introduction & Assignments
January 13	Dairy Industry and Breeds
January 18	Dairy Industry and Breeds
January 20	Anatomy & Physiology of the Mammary Gland
January 25	Anatomy & Physiology of the Mammary Gland
January 27	Quiz #1
February 1	Biosynthesis of Milk
February 3	Biosynthesis of Milk
February 8	Milking and Machine Milking
February 10	Milk Marketing and Pricing
February 15	Milk Marketing and Pricing
February 17	DHIA Records
February 22	Quiz #2
February 24	Sire Selection & Breeding Value
March 1	Sire Selection and Breeding Value
March 3	Sire Selection and New Technology
March 15	Overview of Digestion

March 17	Nutrient Requirements
March 22	Feeds for Dairy
March 24	Feeding the Milking Herd & Dry Cow
March 29	Quiz #3
March 31	Raising Calves and Growing Heifers
April 5	Reproduction in Dairy
April 7	Reproduction in Dairy
April 12	Managing Reproduction Problems
April 14	Herd Health
April 17	Herd Health
April 21	Quiz #4
April 26	Housing
April 28	Parlors & Manure

Tentative Laboratory Schedule

January 13	Orientation, Parts of Cow, Body Scoring, Hoard's Dairyman, DHIA
January 20	Calf Care, Registration, Haltering, Extra Teats, Dehorning Tattooing, Vaccinations
January 27	Milking Equipment & Milking Routine and Milking Lab
February 3	Dairy Cow Evaluation, Judging, Classification
February 10	Anatomy of Udder and Milking, Mastitis and CMT
February 17	Milk Processing, Cheese Tasting
February 24	Field Trip to Processing Plant
March 3	Lab Midterm
March 17	Herd Health Work (IV, Electrolytes), Temperature, Pregnancy checking, etc.
March 24	Sire Selection and Mating Plans
March 31	DHIA
April 7	Ration Work
April 14	Milking Lab
April 21	Waste Handling and Environment
April 28	Lab Final

Agriculture Department Attendance Policy

Students in Agriculture/Horticulture classes are required to attend all scheduled class meetings. If students have a legitimate reason to be absent (personal illness, critical illness, death in their immediate family or participation in an approved University activity) they are expected to discuss it with the instructor prior to the anticipated absence and make arrangements for any make-up work that must be done. Completion of make-up work is the responsibility of the student. The instructor will judge the validity of the reason for an absence.

In case of an emergency of such nature that the above requirements cannot be met, the student should inform the instructor at the first opportunity after the student's return to the campus and should present adequate and documented reasons. Absences in excess of 20 percent of a class will automatically result in a failing grade unless this is waived by the instructor and department chair.

Students who have unexcused absences forfeit the right to do make-up work especially quizzes, exams and laboratories given that day. Enforcement of this policy is the responsibility of the instructor. Unexcused

absences may be used as a factor in determining a grade for the course.

Student Disability Policy

If there is any student in this class who is in need of academic accommodations and who is registered with the Office of Services for Students with Disabilities, please make an individual appointment with the course instructor to discuss accommodations. Upon individual request, this syllabus can be made available in alternative forms. If any student who is not registered with the Office of Services for Students with Disabilities has need of academic accommodations, please contact the Office directly either in person at SSB 361 or by telephone at 622-2933.