

AN 238

Dairy Reproductive Technologies

3 Credits

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AN 238 Version: 1



Dairy Reproductive Technologies

Calendar Description

This course covers the anatomy and physiology of the male and female reproductive system of dairy cattle. Topics include hormones and control of male and female reproduction, puberty, estrous cycles, ovulation, fertilization, pregnancy, parturition, reproductive disorders and biotechnology used within the industry.

Rationale

This is a required course for the Dairy Science major of the Animal Science Technology program for second year students. Since reproductive efficiency is a major factor influencing profitability in the dairy industry and the maintenance of healthy animals, students receiving training in related programs must be especially competent in this area of study.

Prerequisites

None

Co-Requisites

None

Course Learning Outcomes

Upon successful completion of this course, students will be able to

1. identify structure, location, and function of component parts of the reproductive systems for dairy cattle.
2. describe the processes involved in successful reproductive performance on dairy operations.
3. outline and explain the management strategies to improve reproductive efficiency.

Resource Materials

Required Textbook(s):

Senger, P. L. (2015). *Pathways to pregnancy and parturition* (3rd revised ed.). Pullman, WA:

Current Conceptions, Inc.

Reference Textbook(s):

None

Conduct of Course

This course consists of 3 hours of lecture per week.

The lecture is a formalized classroom situation where the instructor discusses pertinent topics and the students normally follow the lecture material using the textbook as a reference.

Evaluation Procedures

Tests	40%
Assignments, Projects & Quizzes	25%
Final Exam	<u>35%</u>
Total	100%

Missed Exams:

If, for any reason, a student is unable to write one of the scheduled exams, the weight of that exam is transferred to the Final Exam, as long as the instructor is given at least one week notice prior to the exam. This policy also is applied to exams missed due to illness as long as a doctor's note is provided. A "make-up" exam is not arranged.

Lakeland College is committed to the highest academic standards. Students are expected to be familiar with Lakeland College policies related to academic conduct and academic honesty and to abide by these policies. Violations of these policies are considered to be serious and may result in suspension or expulsion from the College.

Grade Equivalents and Course Pass Requirements

A minimum grade of D (50%) (1.00) is required to pass this course.

Letter	F	D	D+	C-	C	C+	B-	B	B+	A-	A	A+
Percent Range	0-49	50-52	53-56	57-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-100
Points	0.00	1.00	1.30	1.70	2.00	2.30	2.70	3.00	3.30	3.70	4.00	4.00

Students must maintain a cumulative grade of C (GPA - Grade Point Average of 2.00) in order to qualify to graduate.

Attendance

Classroom and laboratory attendance is considered vital to the learning process and as significant to the students' evaluation as examinations and reports, therefore absenteeism is recorded.

- a. Students having a combination of excused and/or unexcused absence of 20 percent or higher for the scheduled course hours can be required to withdraw and would then automatically receive a "RW" (required withdrawal) for the course, regardless of any other evaluation results. (RW is a failing grade).
- b. An excused absence is one that is verified with your instructor. Verification should be prior to the absence or the next class day following the absence. Verification of the absence may take the form of a note from your doctor/College nurse regarding illness, or a note from another instructor regarding a field trip or other activity, or authorization by your instructor following an in-person meeting. Be sure to contact your instructor and ask what they will require from you as verification for each absence. An unexcused absence is anything NOT verified by the instructor prior to the absence or the next class day following the absence.

NOTE: Any exceptions to the above attendance policy (e.g. timetable conflicts, work-related issues) must be approved in writing by the Department Chair prior to the beginning of the course.

It is the students' responsibility to know their own absentee record.

Normal hours are 8:30 a.m. to 6:30 p.m., with potential for evening courses, exams or extended field trips. Students are expected to be available for classes during these times.

Course Units/Topics

- Male Reproductive System
- Female Reproductive System
- Puberty
- Reproductive Cyclicity
- Spermatogenesis and Spermatozoa Preservation
- Spermatozoa in the Female Tract and Embryogenesis
- Placentation, Gestation, and Parturition
- Puerperium, Clostrogenesis, and Lactation
- Biotechnology in the Dairy Industry
- Reproductive Disorders



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