

**AN 330**  
**Dairy Cattle Production**

**3 Credits**

Instructor: Jolet Kohler  
780 853 8814

Original Developer: Ralph Stredwick

Current Developer: Jolet Kohler

Reviewer: Tracy Quinton

Created: 01/06/1990

Revised: 27/05/2019

Approval: 27/08/2019

Alternate Delivery: No

The Implementation Date for this Outline is 01/01/2020

Copyright©LAKELAND COLLEGE. Email: [admissions@lakelandcollege.ca](mailto:admissions@lakelandcollege.ca)  
2602 - 59 Avenue, Lloydminster, Alberta, Canada T9V 3N7. Ph: 780 871 5700  
5707 College Drive, Vermilion, Alberta, Canada T9X 1K5. Ph: 780 853 8400  
Toll-free in Canada: 1 800 661 6490



## **AN 330 Version: 22**



# **Dairy Cattle Production**

## **Calendar Description**

This course is a general overview of dairy production. Topics discussed include supply management, equipment and milking systems, the lifecycle of dairy cattle, the importance of milk quality and food safety and the economics of dairy production. DHI reports and their usefulness in herd management are also discussed.

## **Rationale**

This is a required course for students in the Dairy Major and Livestock Major of the Animal Science Technology program. This course gives students an initial exposure to dairy cattle. The course equips students with necessary basic skills to be employed in the dairy industry.

## **Prerequisites**

None

## **Co-Requisites**

None

## **Course Learning Outcomes**

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

1. discuss the significance of the Canadian dairy industry.
2. compare and contrast the Canadian and global dairy industries and systems.
3. identify and distinguish between common dairy breeds in Canada and around the World.
4. describe the supply management system in Canada and discuss the advantages and disadvantages of this system.
5. explain how quota is calculated, managed, and regulated under the dairy supply management system.
6. demonstrate how to read and interpret a milk pay statement.
7. explain the components of the milk quality and food safety modules of proAction and implement best practices on-farm.
8. explain the lifecycle of both male and female dairy animals in Canada.

9. identify and explain the major anatomical components of the udder.
10. draw the lactation curve and briefly describe each phase.
11. describe the process of milk secretion and milk let-down.
12. compare and contrast different milking systems used in Canada, recognizing benefits and limitations to each system.
13. list the steps for an efficient milking routine and explain potential problems if not followed.
14. assess factors that influence the food purchasing decisions of Canadian consumers.
15. determine production practices that improve the quality and value of meat and meat animals.
16. describe factors affecting meat quality and grading systems in Canada.
17. evaluate different slaughter practices that are acceptable throughout Canada.

## **Resource Materials**

### ***Required Text:***

None

### ***Reference Text:***

None

## **Conduct of Course**

This course involves approximately 42 hours of lecture.

Students are also required to spend time in the dairy operation, milking and helping with dairy operations.

## **Evaluation Procedures**

The final grade is an aggregate of the following components:

Midterm Exam	25%
Assignments and Quizzes	35%
Project	10%
Final Exam	<u>30%</u>
Total	100%

## 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.

- a. Students having a combination of excused and/or unexcused absence of 20 percent or higher for the scheduled course hours will be required to withdraw and will 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. 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

1. Overview of Dairy Production in Canada
2. Supply Management and Quota
3. Economics of Dairy Production
4. Milk Quality and Food Safety
5. Lifecycle of a Dairy Cow
6. Anatomy of the Udder and Physiology of Milk Production
7. Milking Equipment, Milking Systems, and Milking Routines
8. Meat Science



Copyright©LAKELAND COLLEGE.  
2602 - 59 Avenue, Lloydminster, Alberta, Canada T9V 3N7. Ph: 780 871 5700  
5707 College Drive, Vermilion, Alberta, Canada T9X 1K5. Ph: 780 853 8400  
Toll-free in Canada: 1 800 661 6490 E-mail: [admissions@lakelandcollege.ca](mailto:admissions@lakelandcollege.ca)