

## **ANS 3251 - Biology and Management of Dairy Cattle (section 4634)**

Tuesday and Thursday, 4<sup>th</sup> period (10:40 – 11:30 AM), classroom 151 (ANS Bldg.), 2 credits

### **Course Description**

This survey course offers a deeper understanding of the biology of dairy cattle and the interrelationship between biology and management. Topics: dairy industry, nutrition, reproduction, genetics, behavior, diseases, young stock, facilities, lactation, milking procedures, milk quality, management, economics, and environmental impact of dairy production. It is appropriate for upper-level undergraduate students seeking to improve their knowledge of dairy cattle, biology, and management. The focus is on integrating the material that is taught into higher level learning and thinking.

### **Prerequisite**

None, but the course builds upon some basic understanding of physiology, nutrition, reproduction, and genetics that was taught in high school and ANS 3006 Introduction to Animal Science.

### **Course Goals**

Students will develop a better understanding of the biology of dairy cattle and the interaction between biology and management as it relates to dairy production in Florida and the USA.

### **Instructor**

Dr. Albert De Vries, Room 104F in the Dairy Science building. Office hours are Tuesday and Thursday 11:30 AM- 12:30 PM (the hour after class), or when mutually convenient. The instructor decides in all cases not covered in this syllabus. Several guest instructors will present some of the material. Email only through e-Learning.

### **Teaching Assistant**

Michael Schmitt, Room 104B in the Dairy Science building. Office hours are Tuesday 11:30 AM - 12:30 PM or Thursday 2:30 - 3:30 PM, or when mutually convenient. Email only through E-learning.

### **Class Attendance**

Requirements for class attendance and make-up quizzes, tests, other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. Make-ups need to be requested within one week of the original due date. Class attendance is highly encouraged but not required. All material assigned or discussed in class is subject for examination, but not all discussed material will have posted materials on the course website. We will use a combination of PowerPoint slides, videos, assigned readings, and the black board as aids. We will also use a combination of active learning methods throughout the course. Class time will also be used to give

feedback on student performance in quizzes and tests. Use of cell phones is not allowed during class time, unless we give you permission. These policies are in place to make learning as successful and pleasant as possible for everybody.

### Course Website and Communication

The course website is through <http://elearning.ufl.edu>. We will use the website to post materials, on-line quizzes and grades. We'll bring printed copies of the slides to class whenever we first use the slide set, but they may not be available later. Slides will also be posted on the course website. PowerPoint slides may be complete or incomplete where you should fill in the blanks. Make sure you set your <http://elearning.ufl.edu> settings to receive emails and announcements related to this course as soon as possible. All electronic communication between students and instructors needs to occur through <http://elearning.ufl.edu>.

### Text and Material Covered

Readings will be assigned. All required readings and materials presented and discussed in class are subject for evaluation in quizzes and tests.

### Grading

- 1% Bonus: Complete the get-to-know-you assignment. Details to follow.
- 50% Quizzes: Six in-class quizzes will be given at the start of the class. Each quiz is weighted equally. Material for the quiz is all new material since the previous quiz. The lowest quiz score will be dropped for the calculation of your final grade. Further details about quizzes will be announced in class and on <http://elearning.ufl.edu>.
- 50% Final exam. Comprehensive. Correct English grammar in your answers is part of the grading.
- Tests/quiz scores can be appealed within 1 week of returning the grade. We will regrade the whole test. We'll use the grade book in e-Learning to calculate final grades if possible.
- For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Grading scale:

Grade	Score	Grade	Score
A	≥93%	C	≥73% <77%
A-	≥90% <93%	C-	≥70% <73%
B+	≥87% <90%	D+	≥67% <70%
B	≥83% <87%	D	≥63% <67%
B-	≥80% <83%	D-	≥60% <63%
C+	≥77% <80%	E	<60%

## **Online Course Evaluation Process**

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

## **Academic Honesty**

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

## **Software Use**

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

## **Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)

- Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library, Training Programs, Community Provider Database.
- Career Resource Center, First Floor JWRU, 352-392-1601, [www.crc.ufl.edu](http://www.crc.ufl.edu)
- U Matter We Care, [www.umatter.ufl.edu](http://www.umatter.ufl.edu)

### **Students with Disabilities**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Information: 0001 Reid Hall, 352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

ANS 3251 – Biology and Management of Dairy Cattle - T, R: 4<sup>th</sup> period (10:40 – 11:30 AM) – Spring 2019

Lect.	Week	Date	Day	Topic	Instructor
1	1	1/8	T	Introduction to course, history of dairy production	De Vries
2	1	1/10	R	History of dairy production, dairy production cycle	De Vries
3	2	1/15	T	Dairy production cycle	De Vries
4	2	1/17	R	Lactation physiology	De Vries
5 Q	3	1/22	T	Milk production	De Vries
6	3	1/24	R	Milk production	De Vries
7	4	1/29	T	Mastitis, milk quality	De Vries
8	4	1/31	R	Milking equipment	De Vries
9 Q	5	2/5	T	Nutrition and management: calves and heifers	De Vries
10	5	2/7	R	Nutrition: calves, heifers, cows	De Vries
11	6	2/12	T	Nutrition: cows	De Vries
12	6	2/14	R	Metabolic diseases	De Vries
13 Q	7	2/19	T	Metabolic diseases	De Vries
14	7	2/21	R	Environmental physiology, heat stress	Hansen (MD)
15	8	2/26	T	Environmental physiology, heat stress	Hansen
16	8	2/28	R	Facilities	De Vries
				<i>Spring break March 4-8, no classes</i>	
17	10	3/12	T	Facilities	De Vries
18 Q	10	3/14	R	Welfare	Schmitt (NL)
19	11	3/19	T	Genetics, classification, heritability, PTA	De Vries
20	11	3/21	R	Genetics, classification, heritability, PTA	De Vries
21	12	3/26	T	Selection index, genomics, economics	Schmitt (DK)
22	12	3/28	R	No class: videos + readings	De Vries (DK,DC)
23 Q	13	4/2	T	Estrus cycle, hormones, anestrus	De Vries
24	13	4/4	R	Estrus detection, bulls, AI	De Vries
25	14	4/9	T	Estrus synchronization programs	De Vries
26	14	4/11	R	Sexed semen, embryo transfer, measures, economics	De Vries
27	15	4/16	T	Grazing, organic production	De Vries
28 Q	15	4/18	R	Environmental sustainability of dairy production	De Vries
29	16	4/23	T	Environmental sustainability of dairy production	De Vries
		TBA		Review	
		5/2	R	Final exam (12:30 PM to 2:30 PM). Location TBA	

Q = 20-minute quiz at start of class