

**ANS3319C – Reproductive Physiology and Endocrinology in Domestic Animals
Lecture Syllabus (Fall 2025)**

Course coordinator:

Dr. Brad Daigneault

Office Hours: M, W, F @ 10:30 –11:30 AM

Remote Appointments available upon request

Room 204C “Red” Larson Bldg, Animal Sciences

b.daigneault@ufl.edu

Ph: 352-273-2021

Lectures (Location and Time): ANS156 | M,W,F | (Period 3) 9:35 – 10:25

Laboratory instructor:

Mr. Justin Callaham

Office Hours: Before and after class, By appointment.

Room 210E Animal Science building

callaham@ufl.edu

Ph: 352-294-6754

Lab Times

Monday: 12:50 – 2:45 (Periods 6 & 7), 3:00 – 4:55 (Periods 8 & 9)

Tuesday: 12:50 – 2:45 (Periods 6 & 7), 3:00 – 4:55 (Periods 8 & 9)

Wed: 12:50 – 2:45 (Periods 6 & 7)

Attendance:

Lecture content is available on Canvas located under the Modules tab and will be released prior to the date of given lecture. Please note that this content is not comprehensive and will therefore require attendance for full material. Make-up exams and assignments are not permitted without prior approval or professional medical notice. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Course Objectives:

- 1) Familiarize students with concepts in reproductive anatomy, physiology, & endocrinology of male and female domesticated animals including the cow, pig, horse, sheep, cat, dog, and human.
- 2) Introduce and discuss the systemic production, regulation and interactions of reproductive hormones including synthesis, and transport with emphasis on regulation of reproductive processes of male and female domesticated animals, livestock and humans.
- 3) Utilize the knowledge learned from Objectives 1 and 2 to introduce and discuss reproductive management practices that optimize reproductive efficiency of domesticated animals and humans.

Textbook:

"Pathways to Pregnancy and Parturition" (3rd Edition 2012, P. L. Senger) is required since lecture material will be based directly on book content in addition to use of pictures and diagrams. A laboratory manual will be

distributed in class and posted on Canvas. Students are responsible for reading handouts before lab and bringing handouts to lab.

Grading & Exams:

All lecture graded activities will be conducted in ANS 156. Quizzes and assignments will be posted under the Assignment tab, submitted and grades posted on the Canvas website <https://ufl.instructure.com/>.

Your final grade will consist of lecture exams, quizzes, lab exercises, and a comprehensive final exam.

All exams and quizzes are closed book and do not permit additional resources - including cell phones.

Actual grades on all exercises will be the sum of the points received for correct responses as a percentage of total points possible. Final course grades will be based on the following percentage grade scale:

		B+	86.7-89.9	C+	76.7-79.9	D+	66.7-69.9	F	< 60
A	≥94	B	83.3-86.6	C	73.3-76.6	D	63.3-66.6		
A-	≥90 to <94	B-	80.0-83.2	C-	70.0-73.2	D-	60.0-63.2		

*Note that grades will not be rounded unless the instructor notes a universal change in the grading scale. For example, an 83.69 will be recorded as a B.

Final Grade Components	points	% final grade
Three lecture exams (100 pts each) – <i>in class</i>	300	40%
*Five quizzes (25 pts each) – <i>will drop one (excused or unexcused)</i>	100	15%
Lab grade (see Laboratory Information below for more detail)	1000	25%
Comprehensive final exam (200 pts)	200	20%

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Lecture Exam Dates:

Exam 1: Sept. 22nd (Mon); **Exam 2:** Oct 22nd (Wed); **Exam 3:** Nov 21st (Fri)

Lecture exam dates are tentative and can change at the discretion of the instructor

Final Exam: December 10th (Wednesday- 10:00 AM – 12:00 PM).

Exam and quiz questions will be true/false, multiple choice, matching, short answer, and essay. For short answer and essay questions, a legible, organized, concise and grammatically correct answer will be expected to receive full credit. Outlining answers into pertinent points is acceptable and the suggested method of answering questions provided that the interrelationships between points are indicated. Lecture exams/quizzes will cover all material presented in the textbook, lecture, and lab take-home messages, and worksheets.

Quiz Information

*Quizzes may be administered online using a browser lock in Canvas or during lab time. Student's will be provided ~5 days notice prior to the date of the quiz. Only the highest of 4 quiz grades will be recorded for a total of 100 possible points (25 pts. each). An excused or unexcused event that results in not recording a quiz grade may be utilized to drop the missed quiz. Only one quiz grade may be dropped for the entirety of the course. The instructor will only re-open quizzes for a University-approved absence on an individual case basis. Quizzes will only be available during designated times identified within Canvas and should be completed during these times.

Important Dates

Consult for a complete current info: [Dates and Deadlines](#)

- August 21st : Classes begins
- September 1st : No class – Labor Day
- October 17th: No class – Homecoming
- November 11th: No class – Veterans Day
- November 24-28th: No class - Thanksgiving
- December 3rd Classes End
- December 4-5th: Reading days

Class Demeanor

Students and attendees in the classroom are expected to act in a professional, polite, and respectful manner. Any person engaging in disruptive behavior will be asked to leave the room. Cell phones should remain in silent mode throughout the class. The use of cell phones is disruptive to others sitting within viewing vicinity, and therefore is not permitted. Personal devices may be used to engage in lecture, but viewing of any other content is considered disruptive to the learning environment and is not permitted. If content that does not strictly pertain to lecture material is displayed on a device, the person in possession of the device will be asked to remove the content, turn off the device or leave the room.

Guiding Principles for Course Content

This course focuses on reproductive physiology and endocrinology of livestock species. Although domestic species, wildlife, and humans may be used to reference and support learning objectives, topics that strictly relate to human physiology, policy, and/or politics without direct relevance to livestock species will not be discussed in this course. Topics and learning content delivered are based on peer-reviewed literature and are devoid of individual biases, beliefs, or motives of instructors.

Lecture Schedule

The schedule below is tentative regarding the dates and topics. The schedule may change at the instructor's discretion and as a reflection of class pace or unforeseen circumstances.

Week	Date	Assignment	Topic	Sanger Text
1	08/18 – 08/22	<i>Fri – 1st class</i>	Introduction / Female Anatomy	Ch 1, 2 (10-43)
2	08/25 – 08/29		Female Anatomy / Male Anatomy	Ch 2, 3 (44-79)
3	09/01 – 09/05	<i>Mon- No class</i>	Male Anatomy	Ch 2, 5 (100-125)
4	09/08 – 09/12		Reproductive Endocrine System	Ch 5, 6 (126-139)
5	09/15 – 09/19		Reproductive Endocrine / Puberty (End Exam 2 material) Begin Reproductive Cyclicity	Ch 6,11(228-253)
	09/22	Exam 1 (Mon)		Ch 1-6 & 11
6	09/22 – 09/26		Reproductive Cyclicity	Ch 7 ,8 (140-179)
7	09/29 – 10/03		Reproductive Cyclicity, Follicular Phase	Ch 8, 9 (160-201)
8	10/06 – 10/10		Follicular Phase, Luteal Phase, Spermatogenesis	Ch 9,10(202-227)
9	10/13 – 10/17	<i>Fri – No Class</i>	Spermatogenesis	Ch 10 (202-227)
	10/20 – 10/24	Exam 2 (Wed)	Spermatogenesis, Exam 2, Reproductive Behavior	
10	10/27 – 10/31		Reproductive Behavior, Sperm Transport	Ch 11,12(228-271)
11	11/03 – 11/07		Sperm Transport, Early Pregnancy	Ch 13 (272-291)
12	11/10 – 11/14		Placentation, Gestation, Parturition	Ch 14 (292-313)
13	11/17 – 11/21		Placentation, Gestation, Parturition	Ch 14
	11/21	Exam 3 (Fri)		
14	11/24 – 11/28	<i>No Class</i>	<i>Thanksgiving</i>	
15	12/1 – 12/03		Embryogenesis, Lactation	Ch 15 (313-333) Ch 4 (80-99)
16	12/5 – 12/6	Friday	Reading Day	
	12/10	Final Exam	Thursday: 10:00 AM – 12:00 PM	

Laboratory Information

Faculty Coordinator:

Mr. Justin Callaham

Office Hours: Before and after class | W, F – 9:00 – 10:30 AM | By appointment

Room 210E Animal Sciences Building (0459)

Ph: 352-294-6754 | callaham@ufl.edu

Lab Section Times, Instructors, & Teaching Assistants

<u>Monday, 12:50 – 2:45 PM</u> <u>(RM67)</u> Justin Callaham callaham@ufl.edu Teaching Assistant(s):	<u>Tuesday, 12:50 – 2:45 PM</u> <u>(RT67)</u> Justin Callaham callaham@ufl.edu Teaching Assistant(s):	<u>Wednesday, 12:50 – 2:45 PM</u> <u>(RW67)</u> Justin Callaham callaham@ufl.edu Teaching Assistant(s):
<u>Monday, 3:00 – 4:55 PM</u> <u>(RM89)</u> Justin Callaham callaham@ufl.edu Teaching Assistant(s):	<u>Tuesday, 3:00 – 4:55 PM</u> <u>(RT89)</u> Justin Callaham callaham@ufl.edu Teaching Assistant(s):	

Locations

Laboratories will be held at several locations including room 155 Animal Sciences, Dairy Unit, and Horse Teaching Unit. Please refer to the lab schedule to determine where lab will be each week.

Refer to this link for unit locations <https://animal.ifas.ufl.edu/facilities/>.

Transport is NOT provided. You will need to find transportation to the Horse Teaching Unit and Dairy Research Unit.

Student Support and Success

Your success in this course is important to me. If you are struggling to understand lecture or lab material, or if personal, academic, or university-related issues are affecting your performance, I encourage you to reach out as soon as possible. Please don't wait until the end of the semester—early communication allows us to work together to find solutions and support your learning.

Laboratory Objectives

- The primary objectives of lab are to provide hands-on activities with live animals, dissection of tissues harvested from deceased animals, and operating laboratory and technical equipment frequently used in reproductive biology.
- To provide experiential learning that includes manipulation, dissection, and laboratory techniques concerning the anatomy and physiology of reproductive physiology in large animals.
- To develop skills and understanding of the basic principles of collection, evaluation, extension, and preservation of semen from farm animals.
- To introduce the concept of early embryonic development and provide hands-on experience dissecting pregnant reproductive tracts from the bovine and porcine.
- To develop skills and understanding of estrous synchronization, artificial insemination, embryo collection, embryo freezing, reproductive ultrasonography, and pregnancy diagnosis in ruminant and equine species.

Lab Grading Policies

- Lab is worth **25%** of your **final** course grade.
- *See table below for assignment and point value specifics.*
- **Refer to CANVAS Assignments for DUE DATES and DEADLINES of graded work.**
- **Students must attend their specific enrolled section** to participate in each week's lab activities.
- **Attendance is required to receive credit for weekly graded exercises.**
- Your lowest lab grade during the semester (**excluding the mid-term, final lab exams, and semen project**) will be dropped from your lab grade.
- Attendance is vital to students' success and understanding of lab materials in preparation for the 2 lab practical exams. **If you have 2 or more unexcused lab absences your lab grade will be lowered by 1 letter grade.**
- Due to the nature of our exercises, there will be **no make-up labs or practical exams** during the semester. If you have judging team travel, you need to visit with your lab instructor ahead of your travel dates to make arrangements to attend another lab section to complete lab exercises or practical exams.

	<u># of Assignments</u>	<u>Points Each</u>	<u>Total Possible Points</u>
Knowledge Checks	6	50	300 pts
Take Home Messages	10	50	500 pts
The Semen Project	1	100	100 pts
Practical Exams	2	200	400 pts
Lab Participation			100 pts
Total Points Available			1,400 pts

1 The number of Knowledge Checks and Take Home Messages assigned may change.

Weekly Laboratory Activities

- **Reading** – the lab utilizes a lab manual that provides general reading about each week's lab topic.
- **In lab experiential learning** – lab topics have an associated hands-on learning component to expose students to laboratory bench top skills and concept reinforcement.
- **Take Home Messages** – each lab topic has an associated homework assignment designed to aid knowledge retention. Take Home Messages serve as a guide to the important concepts that should be taken away from each week's lab. These assignments serve as review materials and will assist students in preparing for the 2 lab practical examinations.
- **Knowledge Checks** – students will be presented with various graded activities such as quizzes, online activities, etc. that assist students in evaluating knowledge mastery in preparation for the 2 laboratory practical exams.
- **Practical Examinations** – there are 2 practical examinations that evaluate subject mastery by assessing applied knowledge using tissue identification, applied physiology, diagramming, and benchtop skills.
- **NOTE:** Lab activities will include dissection of reproductive tissues including brain, male, and female animal tracts obtained from the abattoir. You will be required to dissect and study these tissues in lab. The utilization of live animals and dissection of tissues are central to effective learning and enhancement of your lab experience.

Laboratory Schedule

Lab	Week	Location	Topic
1	8/25 – 8/27	ANS 155	Lab Introduction
	9/1 – 9/3	NO LAB	Labor Day Holiday 😊
2	9/8 – 9/10	ANS 155	Female Macro & Microscopic Reproductive Anatomy
3	9/15 – 9/17	ANS 155	Male Macro & Microscopic Reproductive Anatomy
4	9/22 – 9/24	ANS 155	Brain, Hypothalamic, and Pituitary Anatomy
5	9/29 – 10/1	ANS 155	Exam Review Ram Project
6	10/6 – 10/8	ANS 155	!! Lab Practical Exam 1 !! (Material from first three labs)
7	10/13 – 10/15	Sheep Unit	Semen Collection Ram Project
8	10/20 – 10/22	Horse Unit	Semen Collection & Artificial Insemination: Equine
9	10/27 – 10/29	ANS 155	Semen Gradient Separation and Preservation The Semen Project
10	11/3 – 11/5	ANS 155	Embryology and Early Embryonic Development
	11/10 – 11/12	Lab TBD	Veterans Day Holiday 😊
11	11/17 – 11/19	ANS 155	Placental and Fetal Development
	11/24 – 11/26	NO LAB	Thanksgiving Holiday 😊
12	12/1 – 12/4	ANS 155	!! Final Lab Practical Exam 2 – Cumulative !!

Required Policies

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal education use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and deliver by an instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentation such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private 3 Revised: September 2024 conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless, of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Academic Honesty

UF students are bound by The Honor Pledge which states “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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.” The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the [UF Conduct Code website for more information](#). If you have any questions or concerns, please consult with the instructor or TAs in this class.

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). 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: (New Link: <https://policy.ufl.edu/regulation/4-040/>)

Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

The amount of information presented in this course is diverse and expansive. Punctual and regular attendance, timely completion of assignments, and interactions with students and instructors provide the best opportunities for success.

There are no makeup opportunities for the hands-on experiential learning activities in this course. You will be provided the Take Home Message materials as an alternative assignment to ensure you get the required information.

Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Working with Livestock

Working with livestock will require students to adhere to handling practices provided by the instructor either in written or verbal format. The instructors will work to provide students with the ability to manage livestock with minimal stress, thus lowering the risk of injury to people and animals.

Biosafety and Biosecurity

The biosafety and biosecurity of animals and students is a top priority for laboratory activities. Disease transmission can have severe negative consequences on animal and human health that can also be fiscally taxing. Some laboratory activities may require you to bring clean rubber boots that must be washed and disinfected prior to laboratory activities. You must also complete the biosecurity exercise prior to participation in labs conducted at animal units. The use of cell phones or cameras at animal facilities is not permitted without receiving written permission. Instructors and TA's may dismiss students from a lab for violation of biosecurity procedures.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online.

Students can complete evaluations in three ways:

1. The email they receive from GatorEvals,
2. Their Canvas course menu under GatorEvals, or
3. The central portal at <https://my-ufl.bluera.com>

Guidance on how to provide constructive feedback is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

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.

Software Privacy Policies:

1. Canvas (Instructure) - <https://www.instructure.com/policies/product-privacy-policy>
2. Honorlock - <https://honorlock.com/student-privacy-statement/>

Campus Assistance Resources

Students experiencing crises or personal problems that interfere with their general wellbeing 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.

Whole Gator App and website connects UF students with resources dedicated to supporting overall health and well-being. In addition to many of the resources below it also has strategies to practice self-care. <https://one.uf.edu/whole-gator/topics>

Health and Wellness

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non- crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

- University Police Department: [Visit UF Police Department website](#) or call 352- 392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).
- GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273- 4450.
- [Hitchcock Field and Fork Pantry](#). Food and toiletries for those experiencing food insecurity.
- Student Success Initiative, <http://studentsuccess.ufl.edu>.

Academic Resources

- E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392- 4357 or via e-mail at helpdesk@ufl.edu.
- [Career Connections Center](#): Reitz Union Suite 1300, 352-392- 1601. Career assistance and counseling services.
- [Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email ask@ufl.libanswers.com for more information.
- [Teaching Center](#): 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.
- [Writing Studio](#): Daytime (9:30am-3:30pm): 2215 Turlington Hall, 352-846-1138 | Evening (5:00pm-7:00pm): 1545 W University Avenue (Library West, Rm. 339). Help brainstorming, formatting, and writing papers.
- Academic Complaints: Office of the Ombuds; [Visit the Complaint Portal webpage for more information](#).
- Enrollment Management Complaints (Registrar, Financial Aid, Admissions): [View the Student Complaint Procedure webpage for more information](#).
- [Dean of Students Office](#). 202 Peabody Hall, 392-1261. Among other services, the DSO assists students who are experiencing situations that compromise their ability to attend classes. This includes family emergencies and medical issues.

Student Complaints:

- Residential Course: <https://www.ombuds.ufl.edu/complaint-portal/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>