



# ANSC 4304

## Reproductive Physiology

### Fall 2023

**Instructor:** Dr. Laura Patterson Rosa  
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**Office Hours:** By appointment

**Lectures:** Monday, Wednesday                      11:00 am – 12:15 pm                      RAS 132

**Course Description:** My name is Laura Patterson, and I am a veterinarian and geneticist. Reproduction was and still is one of my favorite topics within the veterinary sciences, and I am very excited to teach you all the new developments into how the physiology of reproduction functions in our domestic species. Most animal science professionals have little understanding of the fundamentals of physiological factors in the reproductive traits and effectiveness in our domestic animals, yet with the knowledge acquired in this course, I hope you will be one step ahead in your career. The course content is divided into weeks, Each week covers a specific topic listed on your syllabus calendar, with lectures, reading chapters from the Textbook and other diverse multimedia to improve learning.

#### COURSE EXPECTATIONS

##### Instructor Expectations from Students:

- The instructor will provide weekly opportunities for communication with the class through announcements and reminders as well as office hours (by appointment).
- Class correspondence will be in person during class hours, through Blackboard or student's SRSU email account.
- Instructor will provide email responses within 48-hours of receipt during the hours of 9:00AM-4:00PM, Monday-Friday. Emails sent after hours and during the weekend will be replied to within this timeframe.
- Instructor will provide grades to assignments and projects within 72h after the respective due date.
- The instructor will provide clear and concise instructions on how to complete the course requirements.
- Instructor will provide a range of opportunities to engage in the course content in a meaningful way utilizing diverse multimedia resources to enrich the student's experience and foster curiosity. Students are not mandated but encouraged to ask questions on course content.

##### Professor Expectations of Students:

- Successful students will familiarize themselves with the course syllabus, policies, assessments, evaluation, grading criteria, and course schedule.
- Successful students will complete all coursework on the assigned due date. The student is responsible for arranging the allowed make-up of any missed work, given a University-approved excuse such as (but not limited to) serious illness, accident, or death in the immediate family or participation in a University-sponsored activity provided that, prior to the absence, the student makes arrangement to complete all missed work.
- Successful students will engage in the course, with their peers, and the instructor and with open communication and active participation and should be diligent to use both oral and written communication that respects peers and instructor.
- Students should respond to instructor communication requests regarding course progress and for general inquiries in a timely manner. **The deadline for responding to communication requests will be 72 hours after the communication was sent by the instructor.**

- Successful students will not plagiarize the work of other, or use the work of their peers and claim it as their own. Students accused of any form of academic dishonesty, including but not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials may undergo academic disciplinary procedures.
- Successful students will pre-plan for testing situations and ensure they are able to access the internet to complete the exam during its assigned date and time, and prior to the due date.
- Students will be proactive and resourceful to problem solve in case of internet or technical issues. Further resources for technical support are available through Lobo IT or Blackboard.

### Student Learning Outcomes (SLO):

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Upon completion of this course, students should be able to understand:

1. Anatomical structure nomenclatures for the female and male reproductive system.
2. Reproductive endocrine glands and hormonal function.
3. What is puberty, how it occurs, when it occurs and what factors influence it.
4. Parts of the estrous cycle, its terminology, and basic concepts.
5. Basic components of the sperm and ova and their functions and the process of fertilization.
6. Environmental and behavioral components of reproduction.
7. Embryonic development and maternal recognition of pregnancy.
8. Parturition and post-partum interval.

### Animal Science Marketable Skills:

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- Knowledge of techniques and equipment for planting, growing, and harvesting food products (both plant and animal) for consumption, including storage/handling techniques.
- Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
- Understanding the implications of new information for both current and future problem solving and decision-making.
- Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. Communicating finding in both oral and written form at a level appropriate for the needs of the audience.

### Animal Science Learning Outcomes (ASLO):

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- Demonstrate the basic skills of interpreting research data gathered in an agricultural context.
- Apply critical thinking skills to mitigate potential challenges in diverse animal sciences and related agricultural industries.
- Demonstrate the ability to communicate through written, spoken, and graphical methods.

### Accommodations:

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Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartze@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832.

## Academic Integrity:

The University expects all students to engage in all academic pursuits in a manner that is beyond reproach and to maintain complete honesty and integrity in the academic experiences both in and out of their classroom. The University may initiate disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. For more information visit: <https://www.sulross.edu/catalog/undergraduate-academic-regulations/>

## SRSU Library Services:

The Sul Ross Library - Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, [library.sulross.edu](http://library.sulross.edu). Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email ([srsulibrary@sulross.edu](mailto:srsulibrary@sulross.edu)), or phone (432-837-8123).

## Attendance:

Students MUST arrive promptly to class. If over 25 minutes late to class then student will be considered absent for that day. Documentation of approved absences (personal illness, family emergency etc.) must be presented within 5 days for arrangements to be made to make-up quizzes and assignments. University approved absences for sports and student organizations must be disclosed at least two weeks in advance. Unexcused late assignments will be penalized 25% for the first 24 hours beyond the due date, 50% for 24-48hrs late and will not be accepted thereafter.

## Assessments & Grading:

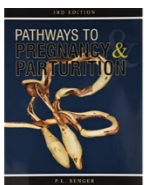
- Demographics Quiz: 10 points – Demographics and interests. Students must answer the quiz to receive the points!
- Group Project Presentation: 130 points
- Written Midterm: 130 points
- Written Final: 130 points
- Attendance: Minus 5 points for every absence

Total = 400 points

Percentage	Letter Grade	Meaning	Points
90% - 100%	A	Excellent	4
80% - 89%	B	Good	3
70% - 79%	C	Average	2
60% - 69%	D	Poor	1
Below 60%	F	Failure	0

For additional information on current Sul Ross State

University policies for assigning grade points, please refer to <https://www.sulross.edu/registrar/catalog-and-policies/>



## Required text:

Senger, P.L. (2012). Pathways to Pregnancy and Parturition. Current Conceptions Inc. 3<sup>rd</sup> edition. It is encouraged that you find and reference a reasonably priced used textbook.

## Project:

As a pair, choose one of the scientific articles posted on Blackboard. Article selection will be done during the first week of classes, and on a first come first served basis. Present the article as a PowerPoint, demonstrating the background information, hypothesis/issues, and applications of the respective research. Each pair will have 15min for the presentation and 5 minutes for questions/discussion at the end. See rubric for details. This project will be presented in the classroom to your peers and scored based on the rubric.

### Important Dates to Remember:

- **September 4 – Labor Day – NO CLASS**
- November 14 - Last day to withdraw from the 16-week course/term with a grade of 'W'. Drops must be processed and in the university registrar's office by 4 p.m.
- November 22-24 – Thanksgiving Holiday – NO CLASS
- November 29 – Due Date
- December 7 – Dead Day
- December 8, 11-13 – FINAL EXAMS WEEK

### Course Schedule (subject to adjustments)

Week and Dates	Monday	Wednesday
1 (8/28-30)	Introduction (Demographics Quiz)	Female Reproductive System
2 (9/4-9/6)	NO CLASS: Labor Day	Male Reproductive System
3 (9/11-13)	Male Reproductive System	Reproductive Endocrine System
4 (9/18-20)	Puberty	
5 (9/25-27)	Endocrinology of the Male & Spermatogenesis	
6 (10/2-4)	Mating Behavior	
7 (10/9-11)	Estrous Cycle	
8 (10/16-18)	Estrous Cycle	Ovulation and Fertilization
9 (10/23-25)	<b>MIDTERM EXAM</b>	Ovulation and Fertilization
10 (10/30-11/1)	Early Embryogenesis and Maternal Recognition of Pregnancy	
11 (11/6-8)	Placentation, Gestation and Parturition	
12 (11/13-15)	NO CLASS: ANSC hosting FFA	Lactation
13 (11/20-22)	Reproductive Management and Technologies	NO CLASS: Thanksgiving
14 (11/27-29)	Group Meeting Day	Group Presentations
15 (12/4-12/6)	NO CLASS – Study Days for Finals	
16 (12/12)	<b>FINAL EXAM</b>	

**FINAL EXAM - Tuesday, 12/12 10:15 a.m. – 12:15 p.m. – ONLINE, (Blackboard)**

The Final Exam will be Proctored, please make sure to have a good internet connection, access to the Lockdown Browser and a functioning camera.