



ANSC 4307-002

Ultrasound & Repro Tech

Fall 2022

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Office Hours: By appointment

Lectures: Tuesday and Thursday 2:30 pm – 5:00 pm RAS 130/LAB TBA

Course Description: Evaluation and application of various techniques to control and determine reproductive functions in livestock. Ultrasonography and assisted reproductive techniques to eliminate infertility and achieve pregnancy in domestic animals.

Student Learning Outcomes (SLO):

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

1. Anatomical structure nomenclatures for the female reproductive system.
2. Reproductive tract visualization using the ultrasound.
3. Detection of fertility in livestock using manual palpation and ultrasound.
4. Fertilization techniques.
5. Embryonic development.
6. Parturition and post-partum interval.

Animal Science Marketable Skills:

- 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):

- 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:

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. 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), 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:

- In-class performance: 250 points
- Written Final: 250 points
- Attendance: Minus 5 points for every absence

Total = 500 points

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/>

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

Performance in class and Written Final:

Students will be evaluated during practice for attentiveness, interest and quality of performed task according to the respective topic covered. A final exam comprising information provided during lectures and practical labs, worth 250 points, will be conducted at the end of the semester.

Important Dates to Remember:

- October 17 - Classes begin, 2nd 8 week term
- November 11 – Veteran’s Day Holiday – 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 23-25 – Thanksgiving Holiday – NO CLASS
- December 5 – FINAL EXAM. 12:30 p.m. – 2:30 p.m.

Course Schedule (subject to adjustments)

Week and Dates	Tuesday	Thursday
1 (10/17-21)	Lecture: Controlled Internal Drug Release (CIDR)	LAB Practicum: Sheep and Goat CIDR insert
2 (10/24-28)	LAB Practicum: AI Techniques (Abattoir)	LAB Practicum: Sheep and Goat CIDR Removal and PG shot
3 (10/31-11/4)	LAB Practicum: PG Shot and patches, Heat Detect and AI	
4 (11/7-11)	Lecture: Estrus detection in ruminants using ultrasound techniques	LAB Practicum: Cattle Remove CIDR, PG Shot, and patch
5 (11/14-18)	Lecture: Estrus and pregnancy detection in horses using ultrasound techniques	LAB Practicum: Horse Pregnancy Ultrasound (Equine Unit Repro Lab)
8 (11/21-25)	Online Class (Video review, see blackboard)	NO CLASS: Thanksgiving
7 (11/28-12/2)	LAB Practicum: Ultrasound Sheep and Goats	Dead Day
8 (12/5-9)	FINAL EXAM December 5th, 12:30-2:30pm	