

Sul Ross State University
ANSC 3313: Equine Lameness & Rehabilitation
Tuesday & Thursday 11:00 am – 12:15 pm (RAS 132)

Instructor:

Dr. Perse McCrae

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Office hours: Monday & Wednesday 9:30-11:00 am or by appointment

Course description:

This course is designed to provide students with an understanding of the common causes of lameness in sport horses. Fundamentals and advanced principles of conformation, biomechanics, injury prevention and physical rehabilitation will be discussed. Emphasis will be placed on current research in the subject area.

Course objectives:

1. Students will demonstrate basic knowledge of the causes of lameness, including common injuries, conformation and management techniques.
2. Students will understand the integration of conformation, biomechanics, training and the development of injury.
3. Students will understand how to assess and apply rehabilitative methods.
4. Students will learn to critically evaluate emerging research in the field of equine sports medicine.

Marketable Skills for Department of Animal Science:

1. Knowledge of techniques and equipment for planting, growing, and harvesting food products (both plant and animal) for consumption, including storage/handling techniques.
2. Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
3. Understanding the implications of new information for both current and future problem solving and decision-making.
4. Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
5. 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.

Departmental projected learning outcomes:

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

Required text:

Manual of Equine Lameness, Gary Baxter, 1st edition 2011, ISBN: 9780813815466, 0813815460. *Can be read/downloaded online: <https://www.noor-book.com/en/ebook-Manual-of-Equine-Lameness--pdf>;
<https://www.pdfdrive.com/manual-of-equine-lameness-e33758782.html>

Animal Physiotherapy, Catherine McGowan & Leslie Goff, 1st or 2nd edition. *Can be read/downloaded online: https://www.academia.edu/11784281/Animal_physiotherapy_assessment_-_Blackwell

Academic honesty:

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/sites/default/files/sites/default/files/users/docs/stulife/student_conduct_discipline.pdf

SRSU Library Services

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SRSU Disability Services:

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. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, 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 rebecca.wren@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.

Absence & late assignment policy:

It is expected that ALL assignments will be submitted on time. Valid absences include 1) medical emergencies with signed note from a doctor, 2) participation in a SRSU-sanctioned activity with a letter from faculty advisor, or 3) other emergencies or conflicts that are allowed at the professor's discretion. Students are expected to make up missed work within a week of original due date. **Late assignments will be accepted for 4 days following the initial due date and time with a 20% penalty per day late.**

Assignments:

Conformation assessment: 120 pts

You will be provided with photos of a horse. Assess the conformation of that horse overall, as well as through a systematic evaluation of all parts of the body. See rubric for all details. Due: September 29th by midnight.

Discipline specific injuries: 200 pts

Choose an equestrian discipline and describe THREE injuries most commonly observed in horses competing in that discipline. Explain what the injuries are, what anatomical structures these injuries affect, the severity of these injuries, and why they are common in that discipline (i.e. what movements are associated with these types of injuries). See rubric for all details. Due: October 29th by midnight.

Final paper: 300 pts

This assignment replaces the final exam and acts to integrate information from the whole semester. Choose one of the conditions discussed in class during lectures 6-8. You will describe this condition in depth, including: what the condition is, what area it affects (use anatomical terms), possible causes, why it is common, how you would diagnose this condition, treatment and rehabilitation options. You must use scientific sources outside of the lecture notes/textbook and these must be cited appropriately. See rubric for all details. Due: December 3rd by midnight.

Points available:

Assignment	Points
Exams (175 points each X 2)	350 pts
Conformation assignment	120 pts
Discipline specific injuries	200 pts
Final paper	300 pts
Class participation	50 pts
Total	1020 Pts

Grading scale:

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = below 60%

Tentative lecture schedule:

**This information should be treated as an outline – there may be alterations in sequence of topics or due dates.*

Date	Topic	Chapter
August 25	Introduction & functional anatomy	Manual of Equine Lameness: Chapter 1
August 27	Introduction & functional anatomy	
September 1	Fundamentals of lameness	Manual of Equine Lameness: Chapter 2
September 3	Fundamentals of lameness	
September 8	Diagnosing lameness	Manual of Equine Lameness: Chapter 3
September 10	Diagnosing lameness	
September 15	Conformation	Lecture notes only
September 17	Conformation	
September 22	Biomechanics	Animal Physiotherapy: Chapter 4 (skip vertebral & canine sections)
September 24	Biomechanics	
September 29	Guest lecture: Dr. Worden – Management of the elite sport horse: biomechanical considerations Conformation assessment due	Lecture notes only
October 1	EXAM 1	
October 6	Common conditions of the foot	Manual of Equine Lameness: Chapter 5
October 8	Common conditions of the foot	
October 13	Common conditions of the foot	
October 15	Common conditions of the forelimb	Manual of Equine Lameness: Chapter 6
October 20	Common conditions of the forelimb	
October 22	Common conditions of the forelimb	
October 27	Common conditions of the hindlimb	Manual of Equine Lameness: Chapter 7
October 29	Common conditions of the hindlimb Discipline specific injuries assignment due	
November 3	Common conditions of the hindlimb	
November 5	EXAM 2	
November 10	Concepts of rehabilitation & therapeutic options	Manual of Equine Lameness: Chapter 9
November 12	Rehabilitation: Regenerative medicine	Lecture notes only
November 17	Rehabilitation: Regenerative medicine	
November 19	Rehabilitation: Electrophysical agents	Animal Physiotherapy: Chapter 13
November 24	Rehabilitation: Hydrotherapy	Animal Physiotherapy: Chapter 14
November 26	NO CLASS: THANKSGIVING	
December 1	BEGIN ONLINE LEARNING	
December 3	FINAL PAPER DUE	
December 8		