ANSC 2307
Equine Conformation and Biomechanics
Sul Ross State University
Fall 2018

Instructor:
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Course Description: An exploration of basic equine anatomy, conformation evaluation, and movement analysis through biomechanical methods and current research.

Course Learning Objectives:
Upon completion of this course, students should be able to:
1) Evaluate equine conformation relative to potential soundness and athletic capacity for a variety of equine events,
2) Assess equine lameness according to the AAEP Lameness Scale,
3) Discuss important kinematic and kinetic principles associated with specific equine events, and
4) Analyze relevant scientific literature related to equine biomechanics, and communicate research findings.

Program Learning Outcomes, Department of Animal Science:
Student will demonstrate that he/she is able to:

1) Apply livestock management techniques to the care and sustainable management of domestic and captive animals,
2) Demonstrate the basic skills of interpreting information gathered in a research setting,
3) Apply critical thinking skills to deal with potential challenges in diverse animal sciences and related industries,
4) Develop problem solving skills, and
5) Demonstrate the ability to communicate through written, spoken, and graphical methods.

Reference Textbook (not required):
The Dynamic Horse (2004). Hilary Clayton (Editor). Sport Horse Publications. Mason, MI.

Additional required reading materials will be made available on Blackboard and/or distributed in class.

Academic Integrity and 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, please see SRSU guidelines on Student Conduct and Discipline, found in the Student

Handbook: http://www.sulross.edu/sites/default/files//sites/default/files/users/docs/stulife/student_conduct_discipline.pdf

Accommodations: Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartze, M. Ed., L.P.C., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas. Telephone: 432-837-8691. E-mail: *mschwartze@sulross.edu*

Distance Education Statement: Students enrolled in distance education courses have equal access to the university's academic support services, such as Smarthinking, library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website.

Absence and Late Assignment Policy:
It is expected that ALL assignments will be submitted on time. Without a valid absence, any assignment turned in up to 24 hr late will receive a -20% penalty, and a penalty of -40% for up to 48 hr late. Assignments turned in after 48 hr will NOT be accepted. Valid absences include 1) medical emergency (signed note from a medical doctor is required), 2) participation in a SRSU-sanctioned activity (a letter from the faculty advisor is required before the absence), or 3) other emergencies or conflicts that are allowed at Dr. Splan's discretion. Students are expected to make up missed work as quickly as possible.

Laboratories: Although this course does not have a separate lab section, and is largely offered via distance, several of the original class periods will contain activities and be held at the equine center. Students must wear close-toed footwear. Students should realize they will be working with and around horses during these times; there are inherent dangers associated with handling large animals and working in an equine environment. Students are required to follow safety procedures and are strongly encouraged to have accident insurance.

Assessment and Grading:
Quizzes (6 @ 25 points each)
Lab activities (3 @ 15 point each)
Written assignments (2 @ 50 pts each)
Scientific article paper (1 @ 100 pts)

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

Tentative Lecture Schedule:

Week	Topic
Week of Aug 27	Conformation basics; balance and structure
Week of Sept 3	Conformation evaluation
Week of Sept 10	Gaits and temporal kinematics
Week of Sept 17	Visual assessment of movement
Week of Sept 24	Functional anatomy
Week of Oct 1	Angular kinematics and aerial motion
Week of Oct 8	Lameness types and assessment
Week of Oct 15	Assessment of lameness
Week of Oct 22	Linear and angular kinetics
Week of Oct 29	Friction, impact, and ground reaction forces
Week of Nov 5	TBD / TBD
Week of Nov 12	TBD / TBD
Week of Nov 19	Biomechanics assessment techniques
Week of Nov 26	Non-traditional breeds and biomechanics
Week of Dec 3	Effects of genetics and training on biomechanics
Week of Dec 10	TBD