

ANEQ 325 Equine Exercise Physiology
Spring 2018
Syllabus

Catalog Description: Overview of the main aspects related to equine exercise physiology. Pre-requisite: ANEQ 203 or BMS 300

Lecture: Lecture: Monday 11:00-11:50 am
Wednesday 11:00-11:50 am in Animal Science135

Instructor: Dr. Tanja Hess
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TA

Objectives: Students will be able to apply the fundamentals of physiology to horses in training. Students will learn the adaptation of different body systems to exercise and training. This course is specifically aimed at those students interested to apply the fundamentals of exercise physiology in training, showing in competition, and recreational riding. Students will learn the complexities of exercise physiology and be able to design training and conditioning regimens based on materials provided in class.

Course Overview: Students completing this course will have a sound, fundamental understanding of equine exercise physiology.

Required Text: Equine Exercise Physiology by Marlin D. and Nankervis K., 1st Edition, ISBN: 0-632-05552-9

Suggested texts: All horse systems go 2006 by Loving, N.S. Trafalgar Square Publishing, North Pomfret, VT 050533,

Student Evaluation:	Homework Assignments (2-5)	60 points
	In class presentation + paper	40 points
	Quizzes	20 points
	Mid-term	50 points
	<u>Final</u>	<u>50 points</u>
	Total	220points

A 90-100%
B 80-89%
C 70-79%
D 60-69%
F less than 60%

Week 1 : 01/17	Introduction
Week 2: 01/22, 24	Cardiovascular system and exercise. Chapter 6 in Equine Exercise Physiology.
Week 3: 01/29, 30	Respiratory system and problems that affect performance. Chapter 5
Week 4: 02/5, 07	Exercise energetics. Chapter 2 in Equine Exercise Physiology
Week 5: 02/12, 14	QUIZ 1 Exercise energetics. Chapter 2 in Equine Exercise Physiology
Week 6: 02/19, 21	Exercise energetics. Chapter 2 in Equine Exercise Physiology Lactate threshold test at Equine Center Pickett arena 2. Chapter 21 in Equine Exercise Physiology Lactate guided tests. Exercise tests in Chapter 18 in Equine Exercise Physiology
Week 7: 02/26, 02/28	Muscle system and exercise (Chapters 7, 9 and 10 in Equine Exercise Physiology).
Week 8: 03/5, 07	Midterm. Muscle system and conditioning, cardiovascular system and conditioning.
Week 9: 3/12-3/14	SPRING BREAK
Week 10: 03/19,21	Visit to Human exercise lab measuring of VO₂/VCO₂ half class 20
Week 11: 03/26,03/28	Visit to Human exercise lab measuring of VO₂/VCO₂ half class (27) Rehabilitation and Physical therapy (Dr Haussler, 3/28);
Week 12:04/02,04	Dr. King Biomechanics-kinetics and kinematics Chapter 13 in Equine Exercise Physiology QUIZ 2 due
Week 13:04/9,11	Training and conditioning of Endurance horses (Cheryl and Randy Winter (9) Thermoregulation: Nancy Loving. (11)
Week 14:04/16, 18	Training and conditioning for eventing horses, Lindy Weatherford (16)
Week 15:04/23, 25	Application of exercise physiology: training and conditioning for race horses, Gail Meisner. Application of exercise physiology: designing a training program. Chapter 15 in Equine Exercise Physiology.
Wk16:04/30; 05/02	Group presentations and discussion
last week classes	Friday Visit to Aurora racetrack 5:30 am to 2 pm
FINALS WEEK May 9	Wednesday, 4:10-6:10 pm same classroom as lecture

Weekly Tentative Schedule