

HORSE ANATOMY AND PHYSIOLOGY

1	Course Title:	HORSE ANATOMY AND PHYSIOLOGY
2	Course Code:	AAAZ101
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. DENİZ SEYREK-İNTAŞ
15	Course Lecturers:	Prof. Dr. Ayşe SERBEST, Yard. Doç. Dr. Füsün (AK) SONAT
16	Contact information of the Course Coordinator:	Prof. Dr. Deniz Seyrek İntaş U.Ü. Veteriner Fakültesi Hayvan Hastanesi Cerrahi Anabilim Dalı, Görükle Yerleşkesi 16059 Görükle / Nilüfer, BURSA e-mail: denizsi@uludag.edu.tr Tel. 0224 294 08 36
17	Website:	http://mennanpasinli.uludag.edu.tr/
18	Objective of the Course:	It is aimed to provide the student with fundamental knowledge about basic equine anatomical terminology, morphological properties of body systems from cell to organs and systems including functional mechanisms as far as it is required for equitation and horseback riding.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	The student knows general anatomical terminology and is able to understand the names, directions and descriptions of body regions, organs and tissues in horses.
	2	The student is aware of the morphological properties of the modern horse, its place in the zoological systematics and morphological evolution.
	3	The student learns the cell structure, its physiology and comprehends changes such as disease and aging
	4	The student knows the morphology and functions of the musculoskeletal system, physiology of movement (muscles, tendons-ligaments, bone and joint functions, biomechanics of the hoof) and their effect on sport performance
	5	The student knows basic structures and functional mechanisms of horses' digestive, respiratory, urogenital and circulatory systems and is aware of their effect on sport performance
	6	The student knows the morphology and physiology of reproductive organs and has a general idea about the functions of other endocrine systems and their influence on organ systems in horses

		7	The student knows the morphology and functions of the central and peripheral nervous system and their effect on tissues and organs		
		8	The student understands the morphology, special properties and physiology of the sensory organs and their role in equestrian sports		
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21	Course Content:				
	Course Content:				
Week	Theoretical		Practice		
1	Classification, structure and functions of cells, cell physiology		Microscopy in the lab, investigation of images of different cell types and cell organelles		
2	Evolution of the horse, morphological changes and the reasons for it, properties of the modern horse, constitution		Demonstration of anatomical structures on a live horse		
3	Physiology of motion (gait types, tempos, striated muscle function, flexion-extension, biomechanics of the hoof, classification and functions of muscles/ tendons/ ligaments and joints.		Video films and/or live demonstration of motion physiology gait types and tempos in the manege.		
4	Musculoskeletal anatomy of the horse -1 (bony skeleton and joints – head, body and extremities)		Anatomy laboratory (investigations on the skeleton)		
5	Musculoskeletal anatomy of the horse - 2		Anatomy laboratory (study on cadaver: dissection of		
Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical (functions, mechanisms, morphology and physiology)			14	2.00	28.00
Practicals/Labs			14	2.00	28.00
Self study (oral and digestion, absorption, and excretion)			14	3.50	49.00
Homeworks			0	0.00	0.00
Projects (morphology of digestive system organs in horses (oral cavity, salivary glands, pancreas, liver)			Anatomy laboratory (study on cadaver / slides/videos about the digestive system)	0.00	0.00
Field Studies			14	3.00	42.00
Midterm exams (physiology and morphology of the urinary system)			1	1.00	1.00
Others (kidneys, ureter, urinary bladder, urethra)			0	0.00	0.00
Final Exams			1	2.00	2.00
Total Work Load					150.00
Total work load/ 30-hr					5.00
11 Functions, physiology and morphological			Anatomy laboratory (study on cadaver / slides/videos		5.00
ECTS Credit of the Course					5.00
12			Reproductive physiology, other endocrine organ systems (adrenal glands, pituitary gland, pancreas etc) functions, female and male reproductive organ morphology		
13			Functions, properties and morphology of sensory organs (skin and epidermal structures, eyes, ears, nose, tongue)		
14			General health parameters (body temperature, respiration/pulse/heart rate, intestinal sounds/frequency, conjunctiva/mucosa, lymph nodes), behavioural signs and alterations of physiological parameters in the sick horse		

22	Textbooks, References and/or Other Materials:	-The equine distal limb. An Atlas of Clinical Anatomy and Comparative Imaging, Denoix J.M, Manson Publishing/The Veterinary Press, 2002. - Praxisorientierte Anatomie und Propädeutik des Pferdes Wissdorf H, Gerhards H, Huskamp B, Deegen E, 3. baskı, M&H Schaper Verlag, 2010; ISBN: 978-3-7944-0216-8. - Atlas der Anatomie des Pferdes, Röck S, Budras KD, Schlütersche Verlag; 6. baskı, 2008, ISBN-10: 3899930436, ISBN-13: 978-3899930436. - Anatomie des Pferdes. Hertsch B, FN Verlag, 5. baskı, 2012.
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23	Assesment
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	35.00
Quiz	1	15.00
Home work-project	0	0.00
Final Exam	1	50.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00
Contribution of Final Exam to Success Grade		50.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	2	3	1	5	2	4	1	5	2	1	2	1	0	0	0	0
ÖK2	2	2	2	4	4	4	1	5	2	1	2	1	0	0	0	0
ÖK3	1	5	2	4	4	3	1	5	2	1	2	1	0	0	0	0
ÖK4	1	4	2	5	3	5	1	5	2	1	2	1	0	0	0	0
ÖK5	1	3	3	3	4	3	1	3	2	1	2	1	0	0	0	0
ÖK6	1	3	2	2	5	2	1	2	2	1	2	1	0	0	0	0
ÖK7	1	3	3	4	2	3	1	3	2	1	2	1	0	0	0	0
ÖK8	1	5	4	4	2	5	1	3	2	1	2	1	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							