

Full Title:	Anatomy and Physiology 1
Language of Instruction:	English
Module Code:	ANPS S7001
Credits:	5
Valid From:	Semester 1 - 2015/16 (September 2015)
Module Delivered in	1 programme(s)
Module Description:	This module will introduce the basic principles of the anatomy & physiology of domestic animals & begin to review the body systems.
Learning Outcomes:	
<i>On successful completion of this module the learner should be able to</i>	
<ol style="list-style-type: none"> 1. Use anatomical planes, directional terms and terminology correctly 2. Identify surface anatomy sites and landmarks for common veterinary procedures 3. Describe the anatomy of the respiratory, cardiovascular, musculoskeletal & digestive systems & the integument 4. Describe the physiology of tissue function, skeletal movement, respiration, circulation & food digestion in mammals 	

Module Content & Assessment

Indicative Content
<p>Introduction to veterinary anatomy & physiology Anatomical terminology, anatomical planes and directional terms. Overview of tissues, organs and body systems. Introduction to body cavities and serous membranes.</p>
<p>The tissues Structure and function of the four tissue types: epithelium, connective tissue, nervous tissue and muscle. Structure and function of compact and spongy bone, hyaline, elastic and fibrocartilage, loose and dense connective tissues, blood, cardiac, skeletal and smooth muscle plus the neuron. Overview of endocrine and exocrine glands.</p>
<p>The gastrointestinal tract The oral cavity and dentition of domestic carnivores (dogs and cats) and herbivores (horses, ruminants). The salivary glands, pharynx, oesophagus and the reflex of swallowing. The structure and function of the monogastric stomach and intestines. The ruminant forestomachs and the postgastric fermenters (horse, rabbit, guinea pig). The processes of enzymatic and microbial digestion. Faecal formation and defecation, canine anal glands. Structure and function of the liver, gall bladder and pancreas. Overview of the hepatic portal circulation and its role in metabolism.</p>
<p>The musculoskeletal system The axial skeleton: the bones and joints of the skull, vertebral column, ribs and sternum. The appendicular skeleton: the bones and joints of the thoracic and pelvic limbs in horses, domestic ruminants, dogs and cats. Clinical focus on synovial joints, in particular the canine stifle joint, and muscles.</p>
<p>The respiratory system The upper respiratory tract: structure and function of the nares, nasal passages, turbinates, sinuses, pharynx, larynx and trachea. The lower respiratory tract: the lungs and thoracic cavities. The muscles of respiration and the process of breathing (mechanical and chemical control). The process of gaseous exchange in the alveoli.</p>
<p>The cardiovascular system Cardiac anatomy: the chambers, valves and blood vessels. The cardiac conduction system and the cardiac cycle. The generation of the heart sounds. Clinical application: cardiac auscultation, blood pressure, pulse assessment and the ECG. The structure of arteries, veins and capillaries. The composition of the blood and its constituent cells. Systemic and pulmonary circulation. Clinical application: common venipuncture sites and pulse palpation in domestic animals.</p>
<p>Lymphatics and immunity Overview of the lymphatic system and the structure and function of the lymph nodes. Introduction to immunology and the functions of the immune system. Clinical application: the significance of colostrum intake in the neonatal period.</p>
<p>The integument. Structure and function of the layers of the skin (epidermis, dermis and hypodermis). Specialized components of the integument: hairs, claws, hooves, foot pads, horns and antlers.</p>

Assessment Breakdown	%
Course Work	50.00%
End of Module Formal Examination	50.00%

Full Time

Course Work							
Assessment Type	Assessment Description	Outcome addressed	% of total	Marks Out Of	Pass Marks	Assessment Date	Duration
Class Test	A written class test will form part of the CA in order to give the students some experience of interpreting written questions prior to the final examination.	1,3,4	10.00	0	0	Week 6	0
Practical/Skills Evaluation	Weekly laboratory practical classes and write ups.	1,2,3,4	40.00	100	40	n/a	0

No Project

No Practical

End of Module Formal Examination							
Assessment Type	Assessment Description	Outcome addressed	% of total	Marks Out Of	Pass Marks	Assessment Date	Duration
Formal Exam	End-of-Semester Final Examination	1,3,4	50.00	0	0	End-of-Semester	0

Reassessment Requirement	
<p>A repeat examination <i>Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.</i></p>	
<p>Reassessment Description If a student does not attend the practical classes they will have to repeat-attend the module.</p>	

DKIT reserves the right to alter the nature and timings of assessment

Module Workload & Resources				
Workload: Full Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	Notes are provided online to be read beforehand. Lectures focus on key concepts and the linkage of the material to the provision of veterinary nursing care.	3.00	Every Week	3.00
Practical	The practicals aim to deepen the students' understanding of the lecture content by emphasising its practical application to animal care and veterinary nursing skills.	3.00	Every Week	3.00
Directed Reading	A module reading list is supplied and relevant resources are also provided on Moodle.	1.00	Every Week	1.00
Independent Study	No Description	2.00	Every Week	2.00
Total Weekly Learner Workload				9.00
Total Weekly Contact Hours				6.00

This course has no Part Time workload.

Resources
<i>Recommended Book Resources</i>
<p>Thomas Colville & Joanna Bassert 2015, <i>Clinical Anatomy & Physiology for Veterinary Technicians</i>, 3rd ed. Ed., Mosby Elsevier [ISBN: 0323227937]</p> <p>Victoria Aspinall 2015, <i>Introduction to Veterinary Anatomy & Physiology Textbook</i>, 3rd ed. Ed., Elsevier Butterworth Heinemann [ISBN: 0702057355]</p>
<i>Supplementary Book Resources</i>
<p>Victoria Aspinall 2011, <i>The Complete Textbook of Veterinary Nursing</i>, Second Ed., Elsevier Butterworth Heinemann [ISBN: 0702040509]</p> <p>Sturtz, Robin. 2012, <i>Anatomy and physiology for veterinary technicians and nurses : a clinical approach</i>, Wiley Blackwell [ISBN: 0813822645]</p> <p>Boyd, John S. 2001, <i>Color atlas of clinical anatomy of the dog & cat</i>, 2nd ed. Ed., Mosby [ISBN: 072343168X]</p>
<i>This module does not have any article/paper resources</i>
<i>Other Resources</i>
<p>VLE Moodle: DkITAnatomy & Physiology 1</p> <p>Link: <i>Library Catalogue</i> http://tinyurl.com/mmz7scb</p> <p>Website: <i>Online Veterinary Anatomy Museum (OVAM)</i> http://www.onlineveterinaryanatomy.net/</p>

Module Delivered in

Programme Code	Programme	Semester	Delivery
Dk_SVETN_7	Bachelor of Science in Veterinary Nursing	1	Mandatory