

**DEPARTMENT OF VETERINARY ANATOMY**  
**M J F COLLEGE OF VETERINARY & ANIMAL SCIENCE CHOMU, JAIPUR**  
**Course Outline for Theory (Session: 2020-21)**

**Teaching Programme**

**Course No: VAN**

**Credit Hrs. 4+3=7**

**Course Title: VETERINARY ANATOMY**

**Duration of lecture Class: 01.02.2021 to 15.12.2021**

S. no.	Date	Topic	Hours
1.	01/02/2021	Introduction to anatomy and branches of anatomy and descriptive terms used in anatomy and study of anatomical planes.	1
2.	02/02/2021	Study of properties and structure of bones.	1
3.	05/02/2021	Classification of skeletons, classification of bones with suitable examples and terms used in osteology	1
4.	06/02/2021 08/02/2021	Introduction to arthrology, classification of joints, different diarthrodial joints.	2
5.	09/02/2021 12/02/2021	Introduction to myology, classification of muscles, etymology of muscles.	2
6.	15/02/2021 16/02/2021	Introduction to angiology. Structure of heart.	2
7.	04/02/2021 05/02/2021	Introduction to neurology and parts of central, peripheral and autonomic nervous system.	2
8.	08/02/2021	Formation of spinal nerves. Structure of meninges, brain, spinal cord.	1
9.	09/02/2021	Different surface regions, joint regions, palpable bony areas or prominences of the body of animal.	1
10.	11/02/2021	Palpable lymph nodes and arteries of the body and surface veins for the venepuncture. Sites for collection of bone marrow and cerebrospinal fluid.	1
11.	12/02/2021 15/02/2021 16/02/2021	Introduction to splanchnology, boundaries of thoracic, abdominal and pelvic cavities, topography of different organs of digestive systems of domestic animals and fowl.	3
12.	19/02/2021 20/02/2021 22/02/2021 23/02/2021 26/02/2021 27/02/2021	Study of bones of fore limb of ox and differences in horse, dog, pig and fowl. Study of hoof of ox and horse.	6
13.	04/03/2021 05/03/2021 08/03/2021 09/03/2021 11/03/2021	Study of joints ligaments, stay apparatus, major blood vessels, nerves, veins and lymph nodes of forelimb. Sites for radial, median, ulnar and volar nerve blocks.	7

	12/03/2021 15/03/2021		
14.	16/03/2021 18/03/2021 19/03/2021 22/03/2021 23/03/2021	Study of cranial and facial bones, cervical vertebrae of ox and differences in horse, dog, pig and fowl.	5
15.	01/03/2021	Boundaries of the oral, orbital, nasal and cranial cavities. Study of paranasal sinuses in ox, horse, dog and pig.	1
16.	02/03/2021 05/03/2021 08/03/2021 09/03/2021 12/03/2021 15/03/2021	Study of articulation and special ligaments of the head and neck. Muscles of face, mastication, eye, ear, tongue, pharynx, soft palate, hyoid and larynx.	6
17.	16/03/2021 19/03/2021 20/03/2021 22/03/2021	Study of teeth, hard and soft palate, tongue, pharynx, larynx, thyroid, parathyroid and salivary glands and differences in horse, dog, pig and fowl.	4
18.	23/03/2021 26/03/2021 27/03/2021 30/03/2021	Study of cranial nerves, blood vessels and lymph nodes of head and neck regions.	4
19.	02/04/2021 03/04/2021 05/04/2021 06/04/2021	Study of boundaries of jugular furrow and structures of carotid sheath along with neck muscles. Study of sense organs, trachea and oesophagus. Age determination by dentition.	4
20.	09/04/2021 10/04/2021	Sites for tracheotomy, esophagotomy, ligation of stensons duct and mental, mandibular, maxillary, cornual, infraorbital, supraorbita(frontal), orbital and auriculopalpebral nerve blocks and surgical approach to guttural pouches in horse.	2
21.	12/04/2021 13/04/2021 16/04/2021	Study of thoracic vertebrae, ribs and sternum of ox and differences in horse, dog, pig and fowl. Study of joints, special ligaments, blood vessels and lymph nodes of thorax.	3
22.	17/04/2021 19/04/2021 20/04/2021 22/04/2021 23/04/2021 24/04/2021	Study of organs of thorax i.e. trachea, thymus, oesophagus, lungs and differences in horse, dog, pig and fowl. Study of pleura, its reflections and mediastinum.	6
23.	26/04/2021 27/04/2021 29/04/2021 30/04/2021 01/05/2021 03/06/2021	Study of bones of abdomen of ox and differences in horse, dog, pig and fowl. Study of joints, special ligaments blood vessels, nerves of abdomen region. Blood and nerve supply to abdominal viscera.	6

24.	03/05/2021 04/05/2021 07/05/2021 10/05/2021 11/05/2021 11/05/2021	Study of peritoneal reflections, organs of digestive, urinary, male and female reproductive system present in abdomen and difference in horse, dog, pig and fowl. Study of mammary glands in cow and differences in mare, bitch and sow.	6
25.	15/05/2021 21/05/2021 22/05/2021 24/05/2021	Study of major veins, lymph vessels, lymph nodes and endocrine glands of abdomen. Sites for liver, gall bladder and caecal biopsies, laparotomy, rumenocentesis, rumenotomy, abomasotomy, splenectomy, cystotomy, caesarean operation, enterotomy and paravertebral block.	4
26.	25/05/2021 28/05/2021 29/05/2021 31/05/2021 01/06/2021 04/06/2021	Study of bones of hind limb and pelvis of ox and differences in horse, dog, pig and fowl. Study of joints, ligaments, blood vessels, lymph nodes and nerves of hind limb, pelvis and tail region and pelvic viscera.	6
27.	05/06/2021 07/06/2021 08/06/2021 11/06/2021 14/06/2021 15/06/2021 18/06/2021 18/06/2021	Study of pelvic peritoneal reflections, organs of digestive, urinary, male and female reproductive systems presents in pelvic cavity and differences in horse, dog, pig and fowl. Sites for tibial, peroneal, plantar and pudic nerve blocks, patellar desmotomy, urethrotomy, castration, vasectomy, cranial and caudal epidural anaesthesia.	8
28.	21/06/2021 22/02/2021 25/06/2021 26/06/2021 28/06/2021 29/06/2021 02/07/2021 03/07/2021	Cytology, cell junctions, study of basic tissue i.e. epithelial, connective, muscular and nervous tissue, blood and bone marrow.	8

29.	05/07/2021 06/07/2021 09/07/2021 12/07/2021 13/07/2021 16/07/2021 17/07/2021 19/07/2021 20/07/2021 23/07/2021 24/07/2021 26/07/2021	Study of microscopic structure of digestive, circulatory, urinary, respiratory, nervous, lymphatic, endocrine, male and female genital system and mammary gland of domestic animals. Study of microscopic structure of sense organs i.e. eye, ear and integument.	12
30.	27/07/2021 30/07/2021 31/07/2021 02/08/2021	Introduction to embryology, gametogenesis, fertilization, cleavage, type of eggs, morula, blastulation, gastrulation, types of implantation, twinning. Formation of foetal membranes in mammals and birds, placenta and its classification. Different germ layers and their derivatives.	4
31.	03/08/2021 06/08/2021 07/08/2021 10/08/2021 13/08/2021 20/08/2021 21/08/2021 23/08/2021	Study of development of organs of digestive system including accessory structures i.e. tongue, teeth, salivary glands, liver and pancreas. Study of development of organs of respiratory, urinary, circulatory, lymphatic, nervous, musculoskeletal, male and female reproductive system.	8
32	24/08/2021 27/08/2021 28/08/2021 31/08/2021 03/09/2021 04/09/2021 06/09/2021 07/09/2021 10/09/2021 13/09/2021 14/09/2021 17/09/2021	Structure of diarthrodial joints and movement permitted. Description of tendon, ligaments, aponeurosis, synovial bursa and synovial sheath. General plan of systemic and pulmonary circulations, lymphatic and venous systems. Sens organs.	12

33	18/09/2021 20/09/2021 21/09/2021 24/09/2021 25/09/2021 27/09/2021 28/09/2021 01/10/2021 04/10/2021 05/10/2021 08/10/2021 11/10/2021	Principles and application of radiography and ultrasound for bones and soft tissues. . Importance of cornual nerve and superficial temporal artery in amputation of horn in cattle. Area of auscultation and percussion of heart and lungs and site for paracentesis thoracis. Development of endocrine glands, sense organs i.e. eye and ear.	12
34	12/10/2021 16/10/2021 18/10/2021 22/10/2021 23/10/2021 25/10/2021 26/10/2021 29/10/2021 30/10/2021 01/11/2021 08/11/2021 09/11/2021	Boundaries of the inguinal canal and structures of the spermatic cord, pre pubic tendon and its importance. Boundaries and clinical importance of the flank and para lumbar fossa. Study of spleen of ox and differences in horse, dog, pig and fowl. Study of external genital organs. Different germ layers and their derivatives.	12
35	12/11/2021 15/11/2021 16/11/2021 20/11/2021 26/11/2021 27/11/2021 29/11/2021 30/11/2021 03/12/2021 06/12/2021 10/12/2021\ 13/12/2021 14/12/2021	Revision	13

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**M J F COLLEGE OF VETERINARY & ANIMAL SCIENCE CHOMU, JAIPUR**  
**Course Outline for Practical (Session: 2020-21)**

**Teaching Programme**

**Course No:** VAN

**Credit Hrs.** 4+3=7

**Course Title:** VETERINARY ANATOMY

**Duration of lecture Class:** 01.02.2021 to 15.12.2021

**Name of Teachers:** Dr. K.M.Gadre, Dr. Sawar Mal, Dr. Pushpendra Rawat, Dr. Amit Singh Vishen

**Batch – A,B,C,**  
**01.02.2021 to 15.12.2021**

S. no.	Date	Topic	Hours
1.	03/02/2021	Study of general terms used in anatomy and study of anatomical planes.	2
2.	04/02/2021	Study of different parts of skeleton, different surface and joint regions.	2
3.	06/02/2021	Study of boundaries of thoracic, abdominal and pelvic cavities. Demonstration of different types of joints, muscle tendons, ligaments, synovial bursa and synovial sheath.	2
4.	10/02/2021 11/02/2021	Demonstration of different surface regions, joint regions and palpable bony areas or prominences of body of the animal, common sites of fractures, palpable lymph nodes and arteries of the body (ventral coccygeal artery in ox, femoral artery in dog and cat, facial artery in horse) and surface veins for venepuncture (cephalic vein and recurrent tarsal vein in dog and cat, jugular vein in large animals) and sites for collection of bone marrow and cerebrospinal fluid. Visualization of radiographs and ultrasound pictures of various organs and fracture of various bones.	4
5.	17/02/2021 18/02/2021 20/02/2021 24/02/2021 25/02/2021	Demonstration of different bones of fore limb of ox and comparison with horse, dog, pig and fowl.	10
6.	27/02/2021 03/03/2021 04/03/2021	Dissection of the fore limb. Study of joints ligaments, muscles, major blood vessels, lymph nodes and nerves of forelimb.	6
7.	06/03/2021 10/03/2021 17/03/2021	Study of suprascapular nerve paralysis shoulder Sweeny, radial nerve paralysis capped elbow. Structure of the equine hoof and comparison with ox. Demonstration of radiographs of noemal bones of forelimb. Clinical importance of cephalic vein for intravenous injections in dog.	6



8.	18/03/2021 20/03/2021 24/03/2021 25/03/2021	Demonstration of cranial and facial bones, cervical vertebrae of ox and comparison with horse, dog, pig and fowl.	8
9.	27/03/2021 31/03/2021 01/04/2021 03/04/2021	Dissection of muscles of face, mastication, tongue, pharynx, soft palate, hyoid, larynx, eye and ear. Dissection of superficial neck muscles. Dissection or demonstration of tunics of eye.	8
10.	07/04/2021 08/04/2021	Study of teeth, tongue, pharynx, thyroid, parathyroid and salivary glands and differences in horse, dog, pig and fowl.	4
11.	15/04/2021 17/04/2021 21/04/2021 22/04/2021	Study of cranial nerves, blood vessels of head and neck regions. Study of trachea and oesophagus.	8
12.	24/04/2021 28/04/2021 29/04/2021	Study of nerve blocks of the head i.e. corneal, auriculo palpebral, peterson's orbital nerve block, mandibulo-alveolar and mental nerve blocks. surgical importance of stenson's duct in domestic animals. Surgical approach to guttural pouches-viborg's triangle.	6
13.	01/05/2021 05/05/2021 06/05/2021 12/05/2021	Demonstration of thoracic vertebrae, ribs and sternum of ox and comparison with horse, dog, pig and fowl.	8
14.	13/05/2021 15/05/2021 20/05/2021 22/05/2021	Dissection of muscles, blood vessels, nerves and lymph nodes of thorax. Demonstration of organs of thorax i.e. trachea, oesophagus, thymus, lungs and heart and differences in horse, dog, pig and fowl. Study of pleural reflections of thoracic cavity.	8
15.	26/05/2021 27/05/2021	Demonstration of sites for auscultation and percussion. Recurrent laryngeal nerve paralysis roaring in horses. Choke or oesophagus obstruction. Demonstration of radiographs and videos of ultrasonography of organs of thorax.	4
16.	29/05/2021 02/06/2021	Demonstration of bones forming boundaries of abdomen of ox and comparison with horse, pig, and fowl.	4
17.	03/06/2021 05/06/2021 09/06/2021 10/06/2021	Demonstration of peritoneum, omentum, mesentry and organs of digestive, urinary, male and female reproductive systems present in abdomen and differences in horse, dog pig and fowl.	8

18.	16/06/2021 17/06/2021	Demonstration of major veins, lymph vessels and lymph nodes of abdomen. Topographic location of abdominal viscera of ox and comparison with horse, dog, pig and fowl.	4
19.	19/06/2021 23/06/2021 24/06/2021 26/06/2021	Demonstration of sites for laparotomy, caesarean section, ovario-hysterectomy, catheterization of urinary bladder and site for paravertebral and epidural anaesthesia. Demonstration of boundaries and clinical importance of the flank and para lumbar fossa, site of liver, gall bladder and caecal biopsies, laparotomy, rumenocentesis, rumenotomy, abomasotomy, splenectomy, cystotomy, caesarean operation, catheterization of urinary bladder and enterotomy and paravertebral block.	8
20.	30/06/2021 01/07/2021 03/07/2021 07/07/2021 08/07/2021 14/07/2021	Demonstration of bones of hind limb of ox and comparison with horse, dog, pig and fowl. Demonstration of joints, ligaments of hind limb and pelvis. Dissection of muscles, blood vessels, lymph nodes and nerves of hind limb and pelvic cavity.	12
21.	15/07/2021 17/07/2021 22/07/2021 24/07/2021	Demonstration of peritoneal reflections of pelvic cavity and organs of digestive, urinary, male and female reproductive systems in pelvic cavity and differences in horse, dog, pig and fowl. Study of external genital organs. Clinical importance of femoral artery to record pulse in dog. Clinical importance of recurrent tarsal vein for intravenous injections in dog	8
22.	28/07/2021 29/07/2021 31/07/2021 04/08/2021 05/08/2021	Microscopy and micrometry. Comparison of light and electron microscopy. Histological techniques, processing of tissues for paraffin sectioning and haematoxylin and eosin staining. Microscopic examination of epithelial, connective, muscular and nervous tissue and blood.	10
23.	07/08/2021 11/08/2021 12/08/2021 21/08/2021 25/08/2021 26/08/2021 28/08/2021	Microscopic examination of organs of digestive, circulatory, urinary, respiratory, nervous, lymphatic, endocrine, male and female genital system and sensory organs of domestic animals.	18

	01/09/2021 02/09/2021		
24.	04/09/2021 08/09/2021 09/09/2021 15/09/2021 18/09/2021 22/09/2021	Demonstration o placenta, umbilical cord and foetal membranes of different domestic animals. Demonstration of congenital anomalies of domestic animals as per availability. Study of slides of developing organs of different system as per the availability. An embalmed cadaver of buffalo calf (procured through donated animals or cadevers obtained from post-mortem section).	12
25	23/09/2021 25/09/2021 29/09/2021 30/09/2021 02/10/2021 06/10/2021 14/10/2021 16/10/2021 20/10/2021 21/10/2021 23/10/2021	In situ demonstration of organs of digestive, respiratory, urinary, endocrine, male and female reproductive systems of domestic animals. Study of sites for different nerve blocks or neurectomies in forelimb. Clinical importance of jugular vein for intra venous injection in large animals. Demonstration of radiographs of normal bones of head and neck. Dissection of brain and its parts. Importance of facial artery for recording pulse in horse.	22
26	27/10/2021 28/10/2021 30/10/2021 03/11/2021 10/11/2021 11/11/2021 17/11/2021 18/11/2021 20/11/2021	Demonstration of mammary gland of cow, mare, bitch and sow. Dissection of muscles, blood vessels and nerves of abdomen. Demonstration of radiographs and videos of ultrasonography of organs of abdomen. Demonstration of radiography of normal bones and videos of ultrasonography of organs of pelvis. . Demonstration of sites for tibial, peroneal, plantar and pudic nerve blocks, patellar desmotomy, urethrotomy castration, vasectomy and cranial and caudal epjdural anaesthesia. Clinical importance of cephalic vein for intravenous injections in dog	18
		revision	

