Course syllabus

First Semester Academic Year 2025

1. Faculty of Veterinary Technology **Department:** Veterinary Nursing

2. Course code: 01603213 **Course title:** Anatomy for Veterinary Nursing

Course credit: 3 (2-3-6)

Prerequisite: None

Sec 230 (Lecture), 230 (Laboratory)

Date/Time/Location Lecture: Monday 11.00 – 13.00
Room 1-403 Veterinary technology teaching and laboratory Building
Laboratory: Friday 13.00 – 16.00
Room 3-101 Anatomy laboratory Building

3. Instructors

1.	Asst.Prof.Dr.Duangkamol	Lewchalermwong (DL)	Course coordinator
2.	Asst.Prof.Dr.Wanat	Sricharoen (WS)	Co-Instructor
3.	Asst.Prof.Dr.Metita	Sussadee (MS)	Co-Instructor
4.	Asst.Prof.Dr.Chanokchon	Setthawongsin	Co-Instructor
5.	Dr.Pratch	Sukumolanan	Co-Instructor
6.	Miss Nattakarn	Naimon (NN)	Teaching Scientist
7.	Miss Rattana	Muikaew (RM)	Teaching Scientist

4. Academic advising and consultation

Asst.Prof.Dr.Duangkamol Lewchalermwong
Room 733, Veterinary technology teaching and laboratory Building
Office hours: Monday-Friday 8.30 – 16.30 (appointment required)
Tel. 0-2579-8573-5 ext 616026 E-mail: cvtdmp@ku.ac.th

5. Course objectives

5.1 Students understand the embryo developmental processes and
5.2 Students understand structures and relationships of internal organs in animals
5.3 Students able to apply anatomical knowledge to animal nursing practices

6. Mapping of CLOs with Sub-PLOs

CLOs	Course learning outcomes: CLOs	Related Sub-PLOs (100%)				
		1	2	3	4	5
1	Explain the anatomical structures of organs in different systems (50%)	1				

2	Explain the anatomical structures of dogs, cats, and poultry (20%)	0.5				
3	Follow anatomical structures to veterinary nursing practice (25%)		1			
4	Demonstrate leadership and teamwork skills, along with responsibility and punctuality.(5%)			0.1		

Remark: Program learning outcome: PLOs and SubPLOs

PLO1 Graduates capable performing veterinary nursing practices through the integration of professional nursing knowledge and clinical analytical reasoning

SubPLO1. Apply the fundamental principles, concepts, and processes of veterinary nursing and related animal health sciences.

SubPLO2. Perform veterinary nursing procedures with technical accuracy and safety.

SubPLO3. Perform veterinary nursing practices with ethical standards, responsibility, communication, and collaborative teamwork in accordance with relevant laws.

PLO2 Graduate perform duties in animal nutrition, rehabilitation, disease control and prevention

SubPLO4. Apply the principles of animal nutrition, immunology, and epidemiology to manage disease prevention, zoonoses control, and post-nursing care protocols.

PLO3 Graduate use and maintain veterinary nursing equipment and tools correctly according to academic principles

SubPLO5. Handle veterinary drugs, instruments, equipment, and medical supplies safely and accurately.

7. Course Description

Embryo development, fundamental anatomy for veterinary nursing, structure and function of animal organ systems.

8. Teaching and learning strategies

Lectures with multimedia and anatomical models, Laboratory dissection of organs from different systems, Group discussion, play-role, Self-directed learning through anatomical textbooks, instructor's handout and laboratory guide

9. Teaching materials

Computer projector, lecture handouts, slide presentations, animal specimens and anatomical models.

10. Assessment and Evaluation; Multiple choice, Fill in the blank test

10.1 Exam (85%)	
1) Midterm Exam (40%)	
Lecture	25%
Laboratory	15%
2) Final Exam (45%)	
Lecture	30%
Laboratory	15%
10.2 Assignment report/Responsibility/Group participant	5%
10.3 Class participation and behavior	10%
Total	100%

11. Achievement indicator

90% of students passed the course.

12. Course Evaluation

The grading criteria are in accordance with the University's academic regulations. Grades are determined using either the criterion-referenced or norm-referenced evaluation method. In the case of criterion-referenced grading, the following standard is applied:

Score 100-80	Grade A	Score 64-60	Grade C
Score 79-75	Grade B+	Score 59-55	Grade D+
Score 74-70	Grade B	Score 54-50	Grade D
Score 69-65	Grade C+	< Score 50	Grade F

13. Teaching textbooks and references

1. Textbooks relate with Development anatomy, Embryology, Prenatal development, Histology
2. Balinsky, B.I. An introduction to embryology. 5th edition. Saunders college. 1981.
3. Berrill, N.J. and Karp, G. Development. Mc Graw-Hill book Co., 1976.
4. Miller's Guide to the dissection of the dog.
5. Guide to the dissection of the dog/Howard E. Evans, Alexander de Lahunta. 7th edition. 2010
6. Pattern, B.M. and B.M. Carlson. Foundation of embryology, Mc Grawgill book Co, 1974.
7. Lecture's handout

14. Course Contents

Week	Date	Title	Instructor	Lesson Learning Outcomes (LLO)	Course Learning Outcomes (CLOs)	Teaching learning approaches	Assessment method
1	**23 Jun 25** 13.00-15.00	Embryonic development (4%)	MS	Explain the principles of anatomical planes and stages of embryo development.	CLO 1	Lecture teaching	Paper-based test
	27 Jun 25 13.00-16.00	LAB Embryonic development	MS and colleague	Explain the stages of embryo development.	CLO 1	Laboratory teaching Role play	Paper-based test
2	**30 Jun 25** 13.00-15.00	Skeletal anatomy I (4%) I. Axial skeletal	DL	Understand the names and structure of individual bones	CLO 1	Lecture teaching	Paper-based test
	4 Jul 25 13.00-16.00	LAB Skeletal anatomy I I. Axial skeletal II. Application for veterinary nursing	DL and colleague	-Identify the names of bones -Linkage to practical application in veterinary nursing practice	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
3	**7 Jul 25** 13.00-15.00	Nervous system (4%) I. Brain, Spinal cord, Cranial nerve II. Eye, Ear	MS	Understand the names and structure of brain, eye and ear	CLO 1	Lecture teaching	Paper-based test
	11 Jul 25 13.00-16.00	LAB Nervous system	MS and colleague	-Identify the names and structure of brain, eye and ear	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test

		I. Brain, Spinal cord, Cranial nerve II. Eye, Ear III. Application for veterinary nursing		-Linkage to practical application in veterinary nursing practice			Assignment
4	**14 Jul 25** 13.00-15.00	Skeletal system II (4%) Appendicular skeletal	DL	Understand the names and structure of individual bones	CLO 1	Lecture teaching	Paper-based test
	18 Jul 25 13.00-16.00	LAB Skeletal system II I. Appendicular skeletal Application for veterinary nursing	DL and colleague	-Identify the names and structure of individual bones -Linkage to practical application in veterinary nursing practice	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
5	**21 Jul 25** 13.00-15.00	Gastrointestinal system (5%) I. Oral cavity, Esophagus II. Stomach, Small and Large intestine Liver/Gall bladder, Pancreas	WS	Understand the names and structure of organs in gastrointestinal system	CLO 1	Lecture teaching	Paper-based test
	25 Jul 25 13.00-16.00	LAB Gastrointestinal system I. Oral cavity, Esophagus	WS and colleague	-Identify the names and structure of organs in	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment

		II. Stomach, Small and Large intestine III. Liver/Gall bladder, Pancreas IV. Application for veterinary nursing		gastrointestinal system -Linkage to practical application in veterinary nursing practice			
6	**28 Jul 25**	**H.M. King Maha Vajiralongkorn's Birthday**					
	1 Aug 25 13.00-16.00	Review LAB Skeletal, Nervous	DL and colleague	Identify the anatomical structures of organs in skeletal and nervous systems	CLO 1, 3	Role play Group discussion	Laboratory test Fill in the blank test
7	**4 Aug 25** 13.00-15.00	Cardiovascular system (4%) I. Chamber of the heart II. Vessel for venipuncture	PS	Understand the names and structure of organs in cardiovascular system	CLO 1	Lecture teaching	Paper-based test
	8 Aug 25 13.00-16.00	LAB Cardiovascular system I. Chamber of the heart II. Vessel for venipuncture Application to veterinary nursing	PS and colleague	-Identify the anatomical structures of cardiovascular systems -Linkage to practical application in veterinary nursing practice	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
Midterm Examination 10 - 18 August 2025 Lecture 25% Lab 15%							
8	**18 Aug 25**	Urinary system (4%) I. Kidney	DL	Understand the names and structure of	CLO 1	Lecture teaching	Paper-based test

	13.00-15.00	II. Ureter Urinary bladder		organs in urinary system			
	22 Aug 25 13.00-16.00	LAB Urinary system I. Kidney II. Ureter III. Urinary bladder Application for veterinary nursing	DL and colleague	-Identify the anatomical structures of organs in urinary system -Linkage to practical application in veterinary nursing practice	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
9	**25 Aug 25** 13.00-15.00	Avian anatomy (5%)	CS	Understand the names and structure of organs in avian Compare the anatomical structures of poultry to dog and cat	CLO 1, 2	Lecture teaching	Paper-based test
	29 Aug 25 13.00-16.00	LAB Avian anatomy	CS and colleague	-Identify the anatomical structures of organs in avian -Linkage to practical application in veterinary nursing practice	CLO 2, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
10	**1 Sep 25** 13.00-15.00	Respiratory system (4%) I. Nostril, nasal passage II. Trachea Lobe of the lung	PS	Understand the names and structure of organs in respiratory system	CLO 1	Lecture teaching	Paper-based test

	5 Sep 25 13.00-16.00	LAB Respiratory system I. Nostril, nasal passage II. Trachea III. Lobe of the lung Application for veterinary nursing	PS and colleague	-Identify the anatomical structures of organs in respiratory system -Linkage to practical application in veterinary nursing practice	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
11	**8 Sep 25** 13.00-15.00	Male reproductive system (4%) I. Testis II. Penis Accessory sex glands	DL	Understand the names and structure of organs in male reproductive system	CLO 1	Lecture teaching	Paper-based test
	12 Sep 25 13.00-16.00	LAB Male reproductive system I. Testis II. Penis III. Accessory sex glands Application for veterinary nursing	DL and colleague	-Identify the anatomical structures of organs in male reproductive system -Linkage to practical application in veterinary nursing practice	CLO 1, 2, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
12	**15 Sep 25** 13.00-15.00	Female reproductive system (4%) I. Ovary Uterus, Cervix, Vagina, Vulva	DL	Understand the names and structure of organs in female reproductive system	CLO 1	Lecture teaching	Paper-based test
	19 Sep 25	LAB Female reproductive system I. Ovary	DL and colleague	-Identify the anatomical structures	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test

	13.00-16.00	II. Uterus, Cervix, Vagina, Vulva Application for veterinary nursing		of organs in female reproductive system -Linkage to practical application in veterinary nursing practice			Assignment
13	**22 Sep 25** 13.00-15.00	Muscular system I (4.5%) I. Forelimb II. Hindlimb	MS	Understand the names and structure of organs in muscular system	CLO 1	Lecture teaching	Paper-based test
	26 Sep 25 13.00-16.00	LAB Muscular system I I. Forelimb II. Hindlimb III. Application for veterinary nursing	MS and colleague	-Identify the anatomical structures of forelimb and hindlimb muscular system -Linkage to practical application in veterinary nursing practice	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment
14	**29 Sep 25** 13.00-15.00	Muscular system II (4.5%) I. Abdominal region II. Lumbar region	MS	Understand the names and structure of organs in muscular system	CLO 1	Lecture teaching	Paper-based test
	3 Oct 25 13.00-16.00	LAB Muscular system II I. Abdominal region II. Lumbar region	MS and colleague	-Identify the anatomical structures of abdominal and lumbar region muscle system -Linkage to practical application in	CLO 1, 3	Laboratory teaching Role play	Laboratory test Fill in the blank test Assignment

		III. Application to veterinary nursing		veterinary nursing practice			
Graduation Day 7-10 October 2025							
15	**13 Oct 25**	วันคล้ายวันสวรรคตของพระบาทสมเด็จพระเจ้าอยู่หัว รัชกาลที่ 9					
	17 Oct 25 13.00-16.00	Review	DL and colleague	- Differentiate the anatomical structures of organs in different systems - Linkage to practical application in veterinary nursing practice	CLO 1, 2, 3	Role play Group discussion	Laboratory test Fill in the blank test
Final examination 19 October – 1 November 2025 Lecture 30% Lab 20%							

(Asst.Prof.Dr.Duangkamol Lewchalermwong)
16 June 2025