

TY02004 : VETERINARY HISTOLOGY II

1. General information

- Term: 04
- Credits: **Total credits 2 (Lecture: 1.5 – Practice: 0.5 – Self study: 6)**
- Credit hours for learning and learning activities
 - + Lecture : 22 hours
 - + Practice in lab: 8 hours
- Self-study hours: 90 hours
- Department conducting the course
 - Department: Veterinary Anatomy – Histology and Embryology
 - Faculty: Veterinary Medicine
- Kind of the course:

Foundation <input type="checkbox"/>		Fundamental <input type="checkbox"/>		Option <input type="checkbox"/>	
Compulsory <input type="checkbox"/>	Elective <input type="checkbox"/>	Compulsory <input checked="" type="checkbox"/>	Elective <input type="checkbox"/>	Compulsory <input type="checkbox"/>	Elective <input type="checkbox"/>

- Prerequisite course(s): TY02003 Histology I .

2. Course objectives and Program learning outcomes

* *Course objectives:*

- Knowledge: Course provided for students with knowledge in microscopic structures and function of organs and organ systems in the body of animal.
- Skills: Course provide students with skills in making histological slides and reading them
- Attitude: Course provide students with attitudes in working with animals and doing scientific researches

* *Course expected learning outcomes*

Notation	Course expected learning outcomes After successfully completing this course, students are able to	Program learning outcome's performance criteria
Knowledge		
CELO1	Describe clearly about structure the tissues and organs at the level of cells	3.2
CELO2	Analysis correctly working mechanism of main cell in the tissues, organs, and body system. Infer the background role of the course in the whole curriculum	5.4
Skill		
CELO3	Perfrom exactly and carefully the steps of taking tissue samples and make a histological slide. Distinguish the differences of the organs in each system of animal body	10.2
CELO4	Intergrate the knowledge and skills of histology for diagnosis and treatment of animal diseases	11.4
Attitude		
CELO5	Retain	13.2

3. Course description

The course includes basic knowledge about the microstructure and basic functions of the Nervous System; Vascular system and blood-forming organs; Endocrine system; Digestive system; Respiratory system; Urinary system; Reproductive system.

4. Teaching and learning & assessment methods

CELOs					
Teaching methods	CELO1	CELO2	CELO3	CELO4	CELO5
Lecturing	x	x			
Practice	x	x	x	x	x
Rubric 1. Attendance (10%)					x
Rubric 2. Practice (30%)	x	x	x	x	x
Rubric 3. Final exam (60%)	x				

5. Student tasks

All students taking this course must attend all lectures (22 hrs) according to VNUA regulations

- Attendance: All students participating in this course must attend the class for the prescribed time to be allowed to take the final exam.
- Prepare for the lecture: All students attending this course must read the content in the lecture section Histology II.
- Presentation and discussion: All students attending this course must complete the essays and seminars at the request of the lecturer.
- Practice: All students participating in this course must fully participate in 03 practice sessions of 20-25 students.
- Students refer to the materials related to the course by themselves under the guidance of the teacher.
- Final exam: students must take the final exam in one of the following forms: written exam, oral exam or multiple choice. After completing the above content (if you do not complete the previous content, you will not be able to take the full exam).

6. Text books and references

* *Text Books/Lecture Notes*

- Viet, DD, Tam, TTD, Son, HM, Diep, NV, Trang, PHT (2012). Lectures on Histology II.
- Textbook "Organizational Studies - Embryology" 1980. Nguyen Xuan Hoat, Pham Duc Lo. Hanoi University and Professional High School Publishing House.

* *Additional references*

- References: Textbook of Cattle Anatomy, Cattle Physiology, Animal Biochemistry.
- Histology and Cell Biology an introduction to Pathology (2002). Abraham L. Kierszenbaum, MD, PhD - Mosby.
- Illustrated documents, images, movies exploited on the internet.

7. Course outline

Week	Content	Course expected learning outcomes
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1	Chapter 1	
	A/ Main content in class : (3 hours) Theory: Introduction to the subject, Chapter I. Nervous system (spinal cord, cerebellum, cerebrum) Practice: (1 hour)	CELO1, CELO2
	B/ Self-study content: (12 hours) Microstructure, function of spinal cord, cerebellum, cerebrum	CELO1, CELO2 CELO4, CELO5
2	Chapter 2. Vascular system and blood-forming organs	
	A/ Main content in class: (3 hours) Theory: Structure and function of lymph nodes, spleen, Practice: (1 hour)	CELO1, CELO2
	B/ Self-study content: (12 hours) Structure and function of lymph node, spleen	CELO1, CELO2 CELO4, CELO5
3	Chapter 3. Endocrine system	
	A/ Main content in class: (3 hours) Theory: Structure and function of pituitary, adrenal gland, thyroid gland. Practice: (1 hour)	CELO1, CELO2 CELO3
	B/ Self-study content: (12 hours) Structure and function of the pituitary and adrenal glands	CELO1, CELO2 CELO4, CELO5
4	Chapter 4. Digestive System	
	A/ Main content in class: (3.5 hours) Theory: Structure and function of the gastrointestinal tract, gland Practice: (1.5 hour)	CELO1, CELO2
	B/ Self-study content: (15 hours) Structure and function of the gastrointestinal tract, gland	CELO1, CELO2 CELO4, CELO5
5	Chapter 5. Respiratory system	
	A/ Main content in class: (3 hours) Theory: Structure and function of the respiratory tract and respiratory system Practice: (1 hour)	CELO1, CELO2 CELO3
	B/ Self-study content: (12 hours) Structure and function of the respiratory tract and respiratory system	CELO1, CELO2 CELO4, CELO5
6	Chapter 6. Urinary System	
	A/ Main content in class: (3 hours) Theory: Structure and function of Kidneys and urinary tract Practice: (1 hour)	CELO1, CELO2 CELO3
	B/ Self-study content: (12 hours) Structure and function of the kidney and urinary tract	CELO1, CELO2 CELO4, CELO5

7	Chapter 7. Genital System	
	A/ Main content in class: (3.5 hours) Theory: Structure and function of the male and female reproductive apparatus Practice: (1.5 hour)	CELO1, CELO2 CELO3
	B/ Self-study content: (15 hours) Structure and function of the male and female reproductive apparatus	CELO1, CELO2 CELO4, CELO5