Course (TY03044): (VETERINARY INFECTIOUS DISEASES INTERNSHIP)

1. General information

- Term: 08
- Credits: **Total credits (Lecture: 0 – Practice: 4) - Self-study: 12**
  - Credit hours for teaching and learning activities:
    + Practice and field trip: 45 hrs
    + Presentation and Discussion: 15 hrs
- Self-study: 180 hrs *(according to personal plan or lecturer's instructions)*
- Department conducting the course:
  - Department: Department of Veterinary Microbiology and Infectious Diseases
  - Faculty: Veterinary medicine
- Kind of the course:

Foundation □		Fundamental □		Option 1 ☒		Option 2 □	
Compulsory □	Elective □	Compulsory □	Elective □	Compulsory ☒	Elective □	Compulsory □	Elective □

- Parallel course(s): None
- Prerequisite course(s): None
- Pre-study course: TY03501_ veterinary infectious diseases
- Course language: English □ Vietnamese ☒

2. Course objectives and expected learning outcomes

**** Course objectives*:**

- Knowledge: Course provided for students with knowledge in the vaccine production process, disease prevention and control, and veterinary activities by visiting and practicing at some agencies such as the Department of Animal Health, the Institute of Veterinary Medicine, and companies in producing veterinary drugs and biological products.

- Skills: The course provides students with skills in the diagnosis and treatment of infectious diseases based on the analysis of the epidemiological characteristics, clinical signs, and lesions of cases collected from outbreaks and through sharing experience seminars by experts working at veterinary drug companies or livestock farms

- Attitude: The course provides students with attitudes in the responsibility to protect the environment and public health

**** Course expected learning outcomes***

Code	Course name	Program learning outcome's performance criteria					
		3.3.	4.1.	6.2.	6.3.	11.3.	14.1.
TY03044	Veterinary infectious diseases internship	M	M	R	R	M	R

Notation	**Course expected learning outcomes** After successfully completing this course, students are able to	Program learning outcome's performance criteria
Knowledge		

CELO1	Apply veterinary knowledge to the diagnosis and treatment of animal diseases effectively	3.3
CELO2	Design programs for diagnosis and treatment of disease for domestic animals	4.1
Skills		
CELO3	Develop internal relationships including establishing connections, resolving conflicts, and developing external relations during teamworking	6.2
CELO4	Evaluate performance of individuals and team for continuous improvement	6.3
CELO5	Implement properly survey and research methods	11.3
Ethics and Attitude		
CELO5	Define clearly the future direction and willingness for life-long learning	14.1

3. Course description

TY03044. Practice of Veterinary infectious diseases (Total credits 4: lecture 0 - practice 4 - self-study 12)

This course consists of: The role of veterinary organizations; Measures of prevention and treatment of infectious diseases in livestock and poultry. Outbreak investigation and diagnosis of common infectious diseases in livestock and poultry. Teaching methods: students participate in internships, and practicals in the field, attend seminars and self-study and do teamwork. Students do exercises, work in groups, and give presentations under the guidance of lecturers. Assessment method: Participant: 10%, midterm exam 30%, group exercises and presentations: 60%. Pre-course: Veterinary Infectious Diseases 1.

4. Teaching and learning & assessment methods

CLOs	CLO1	CLO2	CLO3	CLO4	CLO5	CLO6
Teaching methods						
Practice			x	x	*x*	
Homeworks	x	x	x	x	x	
Presentation	x	x	x	x	x	x
Group-based			x	x	x	
Assessment						
Rubric 1. Participant (10 %)			x	x	x	x
Rubric 2. Mid-term exam (30%)	x	x				
Rubric 3. Presentation (60%)	x	x	x	x	x	x

5. Student tasks

- Internship program: All students taking this course must participate fully in the internship period at the internship location as assigned by the lecturer, in all seminars.

- Mid-term exam: Students are required to take the midterm exam according to the lecturer's schedule

- Exercises, group work: students practice in groups on different case topics

- Presentation: All students attending this module must discuss and prepare to present in groups.

6. Textbooks and references

**** Text Books/Lecture Notes:***

1. Nguyen Ba Hien, Huynh Thi My Le, Le Van Lanh, Do Ngoc Thuy, Nguyen Van Giap, Dang Huu Anh, Truong Ha Thai, Chu Thi Thanh Huong (2020). Textbook of Veterinary Infectious Diseases. Agricultural University Publisher.

2. Nguyen Nhu Thanh, Le Thanh Hoa, Truong Quang, Trinh Dinh Thau, Phan Quang Minh, Nguyen Van Long, Mai Thi Ngan, Huynh Thi My Le (2015). Textbook of veterinary epidemiology. Hanoi Agricultural University Publisher.

**** Additional references:***

1. Huynh Thi My Le Nguyen Van Giap, Mai Thi Ngan, Le Van Truong, Vu Thi Ngoc, Vo Van Hieu, Ta Thi Kim Chung, Vu Duc Hanh. 2020. Presence of porcine parvovirus 1 (ppv1) in domestic pigs in Hanoi and the surrounding area. Journal of Vietnam Agricultural Science. Volume 7 (18).

2. Thi Ngan Mai, Wataru Yamazaki, Thanh Phong Bui, Van Giap Nguyen, Thi My Le Huynh, Shuya Mitoma, Hala El Daous, Emmanuel Kabali, Junzo Norimine, Satoshi Sekiguchi. 2020. A descriptive survey of porcine epidemic diarrhea in pig populations in northern Vietnam. Tropical Animal Health and Production.

*3. Nguyen, V.-G.; Chung, H.-C.; Do, H.-Q.; Nguyen, T.-T.; Cao, T.-B.-P.; Truong, H.-T.; Mai, T.-N.; Le, T.-T.; Nguyen, T.-H.; Le, T.-L.; Huynh, T.-M.-L. Serological and Molecular Characterization of Avian Metapneumovirus in Chickens in Northern Vietnam. Vet. Sci.**2021**, 8, 206*

**** Research and research results:***

1. Huynh Thi My Le Nguyen Van Giap, Mai Thi Ngan, Le Van Truong, Vu Thi Ngoc, Vo Van Hieu, Ta Thi Kim Chung, Vu Duc Hanh. 2020. Presence of porcine parvovirus 1 (ppv1) in domestic pigs in Hanoi and the surrounding area. Journal of Vietnam Agricultural Science. Volume 7 (18).

2. Nguyen, V.-G.; Chung, H.-C.; Do, H.-Q.; Nguyen, T.-T.; Cao, T.-B.-P.; Truong, H.-T.; Mai, T.-N.; Le, T.-T.; Nguyen, T.-H.; Le, T.-L.; Huynh, T.-M.-L. Serological and Molecular Characterization of Avian Metapneumovirus in Chickens in Northern Vietnam. Vet. Sci.2021, 8, 206.

7. Course outline

Week	Content	Course expected learning outcomes
1	**Chapter 1: Roles of agencies and organizations in the veterinary sector. Some measures to prevent and treat infectious diseases in livestock**	

	A / Main contents of class: (45 hours) a. Visiting at Veterinary drug testing center N^{o} 1 , Department of Animal Health - State management agency b. Visiting at the central veterinary diagnostic center, Department of Animal Health - State management agencies c. Visiting Veterinary Institute - Research Agency d. Visiting companies, veterinary vaccine production and trading agencies e. Solutions to prevent infectious diseases 1.5.1. Hygiene prevention 1.5.2. Vaccines against diseases 1.6. Treatment of some infectious diseases 1.6.1. Principles of drug selection 1.6.2. Treatments	CLO1-CLO5
	B / Contents to self-study at home: (115 hours) 1.7. Understand veterinary work, the situation of manufacturing and trading of drugs and biologicals used in veterinary medicine 1.8. Measures to improve the environment, clean the stables 1.9. Develop a vaccine use schedule for 1 farm	CLO1-CLO5
2	**Chapter 2: Investigating outbreaks, diagnosing common infectious diseases in livestock**	CLO1-CLO6
	A / Summary of main contents of the class: (15 hours) 2.1. Investigation of outbreaks 2.2. Diagnosis of some common diseases in pigs 3.1.1. Check clinical symptoms, gross lesions 3.1.2. Some diagnostic operations in the laboratory 2.3. Diagnosis of some common diseases in poultry 3.2.1. Check clinical symptoms, gross lesions 3.2.2. Some diagnostic operations in the laboratory 3.4. Content semina / discussion: 3.4.1. Steps to prepare an outbreak investigation 3.4.2. Make an epidemic survey sheet 3.4.3. Report the outbreak investigation results	
	B / Contents to self-study at home: (45 hours) 3.5. Principles of making questionnaire 3.6. Write report of outbreak investigation 3.7. Write minutes of surgery, report the results	CLO1-CLO6