

TY03015: VETERINARY HYGIENE 2

1. General information

- Term: 9
- Credits: Total credits 2 (Lecture:1.5 – Practice: 0.5)
- Self-study: 6 credits
- Credit hours for teaching and learning activities: 38 hrs
- Self-study: 90 hrs.
- Department conducting the course:
 - Department of Veterinary Public Health
 - Faculty of Veterinary Medicine
- Kind of the course:

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

- Prerequisite course(s): TY03014 – Veterinary hygiene 1

2. Course objectives and expected learning outcomes

* *Course objectives:*

- Knowledge: Course provides for students with knowledge in principles and regulations on feed hygiene and animal nutrition, animals and animal product transportation, animal disease control and prevention, livestock waste treatment and management.
- Skills: Course provides students with skills in microbiological testing for feed, skills in using laboratory equipment, skills in quantitative analysis and evaluation.
- Attitude: Course provides students with attitudes in protect the environment and improve human health through feed hygiene and animal nutrition, animals and animal product transportation, animal disease control and prevention, livestock waste treatment and management.

* *Course expected learning outcomes*

Notation	Course expected learning outcomes (CLOs) After successfully completing this course, students are able to	Program performance criteria (PPC)
Knowledge		
CLO1	Apply knowledge of feed hygiene and animal nutrition, animal and animal product transportation to prevent nutritional diseases, prevent diseases during transportation and improve animal health.	3.4
CLO2	Propose measures to prevent and control animal diseases and livestock waste treatment based on current regulations.	4.2

Skills		
CLO3	Apply critical and creative thinking in assessment and problem solving which are related to feed hygiene and animal nutrition, animal and animal product transportation, control and prevention of animal diseases, livestock waste treatment.	5.3
CLO4	Consult the quality of feed in terms of microbiology based on the quantitative analysis and evaluation.	9.1
Attitude		
CLO5	Implement responsibility to protect environment and improve human health through the prevention of animal nutritional diseases, prevention and control animal diseases and livestock waste treatment.	13.1

3. Course description

Brief description of the course: This course consists of principles and regulations on feed hygiene and animal nutrition, animals and animal product transportation, animal disease control and prevention, livestock waste treatment and management.

4. Teaching and learning & assessment methods

CLOs	CLO1	CLO2	CLO3	CLO4	CLO5
Teaching methods					
Lecturing	x	x			x
Group-based learning and presentation	x	x	x		x
Practical				x	
Assessment					
Rubric 1. Class attendance (10%)					x
Rubric 2. Presentation (15%)	x	x	x		
Rubric 3. Mid-term examination (15%)	x				
Rubric 4. Practical (0%)				x	
Rubric 5. Final exam (60%)	x	x			x

5. Student tasks

- Attendance: All students are required to attend the class following the current regulations.
- Preparation for the lecture: All students are required to read the lectures and references.
- Presentation and discussion: All students are required to prepare oral presentations by groups.
- Practice: All students are required to attend all practice days.
- Mid-term examination: All students are required to take the mid-term exam.
- Final examination is followed university regulations.

6. Text books and references

* *Text Books/Lecture Notes:*

1. Đỗ Ngọc Hòe & Nguyễn Minh Tâm (2005). Giáo trình vệ sinh vật nuôi. NXB Hà Nội. 81 tr.
2. Huỳnh Thị Mỹ Lệ, Nguyễn Văn Giáp, Đặng Hữu Anh, Lê Văn Phan (2021). Giáo trình truyền nhiễm thú y. NXB Nông nghiệp.

* *Additional references:*

1. Vu, T. T. T., Pham, H. N., Lai, T. L. H., Bui, T. H., Hoang, A. H., Pham, T. L., Nguyen, P. T. & Nguyen, T. T. 2021. Assessment of microbiological contamination in feed at chicken farms in Dong Anh, Ha Noi. Veterinary Sciences and Techniques, XXVIII(5), 26-30.
2. Vu, T. T. T., Pham, H. N., Lai, T. L. H., Cam, T. T. H. & Vu, T. H. T. 2020. Current situation on application of biosecurity at chicken farms in Dong Anh, Hanoi. Veterinary Sciences and Techniques, XXVII(6), 73-77.
3. Vu, T. T. T., Pham, H. N., Cam, T. T. H., Nguyen, T. H. G. & Nguyen, T. T. 2019. FAO recommendation on carcass disposal methods. Veterinary Sciences and Techniques, XXVI(6), 83-86.
4. Pham, H. N., Duong, V. N., Vu, T. T. T., Ngo, M. H., Dinh, P. N. & Unger, F. 2016. Application of biosecurity in small scale pig farm in Hung Yen and Nghe An provinces. Veterinary Sciences and Techniques, XXIII(1), 79-84.

7. Course outline

Week	Content	Course expected learning outcomes
1	Chapter 1. Feed hygiene and animal nutrition	
	A/ Main contents: (8 hours) 1. Theories: (6 hours) 1.1. Purpose and signification of feed hygiene and animal nutrition 1.2. The principles of feed hygiene and animal nutrition 1.3. Hygiene for control of impurities and toxins 1.4. Hygiene for control of microorganism contamination and parasites 1.5. The principles of feed composition Presentation and discussion: (2 hours) - Additives in feed - Feed production process and feed quality control 2. Practice: (16 hours) - Method for determination of total number of aerobic bacteria in feed - Method for determination of total coliforms in feed	CLO1, 3, 4, 5
	B/ Self-study contents: (48 hours) - Reading references and lectures	

Chapter 2. Hygiene in animal and animal product transportation		
A/ Main contents: (3 hours) 1. Theories: (3 hours) 1.1. Purpose and signification of hygiene in animal and animal product transportation 1.2. Regulations in transport vehicles 1.3. Forms of transportation 1.4. Preparation before transportation 1.5. Take care during transportation 1.6. Disinfection before and after transportation Impacts of transportation 2. Practice: (0 hours)		CLO1, 3, 5
B/ Self-study contents: (9 hours) - Reading references and lectures		
Chapter 3. Hygiene in animal disease control and prevention		
A/ Main contents: (6 hours) Theory: (4 hours) 3.1. Purpose and signification of hygiene in animal disease control and prevention 3.2. The principles of animal disease control and prevention 3.3. Animal disease prevention 3.4. Control of animal disease outbreaks Discussion: (2 hours) - Application of biosecurity in animal disease control and prevention - Vaccination for animal disease prevention		CLO2, 3, 5
B/ Self - learning contents: (18 hours) - Reading references and lectures		
Chapter 4. Hygiene in livestock waste treatment and management		
A/ Main contents: (5 hours) Theory: (3 hours) 4.1. Purpose and signification of hygiene in livestock waste treatment and management 4.2. Classification of livestock waste 4.3. Impacts of livestock waste 4.4. Methods for livestock waste treatment and management Discussion: (2 hours) - Current situations of livestock waste treatment and management - Animal carcass disposal methods		CLO2, 3, 5
B/ Self - learning contents: (15 hours) - Reading references and lectures		