MINISTRY OF AGRICULTURE
AND RURAL DEVELOPMENT
**VIETNAM NATIONAL UNIVERSITY
OF AGRICULTURE**

**SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness**

PROGRAM FOR UNDERGRADUATE
VETERINARY MEDICINE

COURSE SPECIFICATION
TY03037: ANIMAL WELFARE

I. General information

- o Term: 7
- o Credits: 2 **(Theory: 2.0 - Practice: 0 - Self-study: 6.0)**
- o Credit hours for teaching and learning activities:
  - + Lecture: 15 hrs
  - + Presentation and Discussion: 15 hrs
- o Self-study: 90 hrs (under the teacher's instruction)
- o Department conducting the course:
  - ▪ Department: Veterinary Public Health
  - ▪ Faculty: Veterinary Medicine
- o Kind of the course:

Foundation □		Fundamental □		Professional □	
Compulsory □	Elective □	Compulsory □	Elective X	Compulsory □	Elective □

- o Parallel course(s): None
- o Prerequisite course(s): None
- o Course language: English □   Vietnamese X

II. Program learning outcomes

Program learning outcomes and program's performance criteria to which the course contributes:

Program learning outcomes After successfully completing this program, students are able to	**Program Learning outcome's performance criteria**
Specific Knowledge	
PLO3: **Apply** veterinary knowledge to the animal disease diagnosis and treatment effectively.	3.1: **Apply** veterinary knowledge to monitor animal health 3.4: **Apply** veterinary knowledge to improve animal health
Specific Skills	
PLO11: **Research** to solve the problems in the veterinary field successfully	11.3: Apply exactly survey and research methods
Attitudes	
PLO12: **Comply** with regulations and law, maintain professional ethics	12.2: Maintain professional ethics of veterinarians

Program learning outcomes After successfully completing this program, students are able to	Program Learning outcome's performance criteria
PLO13. **Demonstrate responsibility** to protect the environment, improve public health and show love for animals	13.2: Show love for animals

III. Course objectives and Program learning outcomes

* *Course objectives*:

- Knowledge: Course aims to provide learners with fundamentals in animal welfare and their application in animal management, care, disease prevention & control;

- Skills: Course aims to practise learners with skills in applying appropriately survey and research methods based on animal welfare background.

- Attitude: Course aim to help learners to be highly aware of duty and role of veterinarians and veterinary organizations in animal welfare.

* *Course expected learning outcomes*:

This course contributes to program expected learning outcomes as follows:

I – Introduction; P – Practice; R – Reinforce; M – Master

Code	Course name	Program learning outcome's performance criteria				
		3.1	3.4	11.3	12.2	13.2
TY03037	Animal Welfare	R	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		
K1	Apply well animal welfare fundamentals in animal management, care, disease prevention & control.	3.1
K2	Apply fully veterinarian's duty and role in animal welfare in specific activities.	3.4
Skills		
K3	Apply appropriately survey and research methods based on animal welfare background.	11.3
Ethics and Attitude		
K4	Maintain professional ethics of veterinarians	12.2
K5	Show love for animals.	13.2

IV. Course description (< 100 words)

TY03037: Animal Welfare (2TC: 2,0 – 0 – 6). *Contents*: This course consists of: Concepts in animal welfare; Animal welfare in livestock production; Welfare of pet animals; Welfare of other types of animals; Animal welfare and the human society; Veterinarians and animal welfare; Welfare

of animals in education and research; Animal welfare organizations and legislation. ***Teaching method***: Lectures in class meetings; self-study by reading materials and discussing with other students and teachers. ***Assessment method***: participation 10%, mid-term 30%, final exam 60%.

V. Teaching and learning methods
1. Teaching methods
Table 1: Matrix of Teaching methods and CELOs

CELOs Teaching methods	CELO1	CELO2	CELO3	CELO4	CELO5
Lecturing	x	x	x	x	x
Presentation & Discussion	x	x	x	x	x

2. Learning methods
Teaching methods: Lecturing in class; Facilitating oral presentation and group discussion.

Learning methods: Attending class meetings, self-study based on recommended relevant learning resources; Group working to prepare for oral presentation and discussion on assigned topics.

VI. Student tasks
- Attendance: All students taking this course are required to attend class meetings as regulated (at least 75% of total class hours)

- Preparation for the lecture: All students taking this course are required to read relevant handouts and selected parts/modules of the syllabus 'Concepts in Animal Welfare', 2nd edition, WSPA 2007 (translation in Vietnamese 2013) before attending a class meeting.

- Presentation & Discussion: All students taking this course are required to participate in preparing presentation and discussion on topics as assigned.

- Mid-term exam: All students taking this course are required to take mid-term exam(s). There will be at least one written mid-term exam (questions will be in form of essay or multiple choice test or both).

- Final exam: All students taking this course are required to take the final exam (questions will be in form of essay or multiple choice test or both)

VII. Assessment methods
1. Grading: 10
2 . Average score of course is the total points of rubrics multiplied by the respective weight of each rubric.

Class participation/attendance: 10%

Presentation & Discussion: 15%

Mid-term exam: 15%

Final exam: 60%

3. Assessment summary
Table 2. Matrix of Assessment methods and CELOs

KQHTMĐ	CELO1	CELO2	CELO3	CELO4	CELO5	Week

Formative assessment (40%)						
Rubric 1. Attendance (10%)				x	x	Week 1-10
Rubric 2. Presentation & Discussion (15%)	x	x	x	x	x	Week 3-10
Rubric 3. Mid-term exam (15%)	x	x				Week 5-10
Summative assessment (60%)						
Rubric 4. Final exam (60%)	x	x				According to the exam schedule planned by VNUA

Rubric 1. Attendance/Participation

Areas of assessment	Weighting (%)	10 point	9 point	8 point	7 point	Not allowed to take final exam
Attendance attitude	50	- Attend all class meetings - attentively listening and actively contributing to class's activities	- Attend all lectures and practices - Or: absence 3 hours of lecture, attentively listening and actively contributing to class's activities	-Absence 3 hours of lecture - Or: absence 6 hours of lecture, attentively listening and actively contributing to class's activities	Absence 6 hour lecture	-Absence > 25% lectures
Attendance time	50	Students attending at least 80% of class meetings will be fully marked (50%); 10% will be deducted for one meeting missed.				

Rubric 2. Presentation & Discussion

Areas of assessment	Weighting (%)	Excellent (8.5 - 10 points)	Good (7 – 8.4 points)	Fair (4 – 6.9 points)	Poor (< 4 points)
Content	10	More than required	Sufficient as required	Quite sufficient; some important contents missed	Some major contents missed
	20	Accurate, scientific	Minor mistakes, few inaccurate points	Some points are not accurate and scientific	Most contents are not accurate and scientific

Structure and visualization	10	Excellent slide structure	Good slide structure	Some slides are not so well-structured	Poor structure of slides
	10	Excellent visualization	Good visualization	Quite good visualization	Poor visualization
Presentation skills	10	Presenting clearly and persuasively	Presenting clearly but not so persuasively	Presenting unclearly, not persuasively	Presenting unclearly, not persuasively
Interaction skills	10	Excellent interaction	Good interaction	Quite good interaction	Poor interaction
Time management	10	Excellent time management	Good time management	Quite good time management	Poor time management
Answering questions	10	Answer all questions clearly and correctly	Answer majority of the questions clearly and correctly	Answer some of the questions clearly and correctly	Can not answer the questions
Cooperation among group members	10	Excellent cooperation	Good cooperation	Quite good cooperation	Poor cooperation

Rubric 3. Mid-term exam

Areas of assessment	Indicators are evaluated through questions	CELO criteria to be met
Apply animal welfare fundamentals in animal management, care, disease prevention & control.	- Basic concepts in AW? - "5 Freedoms" and their significance? - AW assessment methods? - 3Rs and their application?	CELO1, CELO2

Rubric 4. Final exam

Areas of assessment	Indicators are evaluated through questions	CELO criteria to be met
Fundamentals of animal welfare	Basic concepts in AW: "5 Freedoms"; 3Rs; AW assessment methods?	CELO1
Apply animal welfare fundamentals in animal management, care, disease prevention & control.	Application of "5 Freedoms"; 3Rs; AW assessment methods?	CELO1
Understand well animal welfare importance in nature conservation and humane education.	- The relation between animal welfare and environmental protection? - Why can we say that to improve animal welfare contributes to improving human attitude and behaviors?	CELO1, CELO2

Be well aware of duty and role of veterinarians and veterinary organizations in animal welfare	- Why the animal health sector is the key stakeholder in animal welfare areas?	CELO2
Apply knowledge of duty and role of veterinarians and veterinary organizations in animal welfare	- Role of veterinarians in improving animal welfare? The framework for veterinarians to make an ethical decision involving animals? - Role of veterinary organizations (professional associations, licensing organizations) in improving animal welfare?	CELO2
Local and international animal welfare related organizations and legislations.	- Key points of local and international animal welfare related organizations and legislations?	CELO1, CELO2

Table 3. Performance indicators of Course expected learning outcomes
(for mid-term and final exams)

CELO	*Indicators of CELO*
CELO1	**Indicator 1:** Apply well animal welfare fundamentals in animal management, care, disease prevention & control. **Indicator 2:** Analyze the animal welfare importance in nature & environment protection and humane education. **Indicator 3**: Explain national and international legislation systems and organizations dealing with animal welfare application in animal management, care, disease prevention & control.
CELO2	**Indicator 4:** Apply fully veterinarian's duty and role in animal welfare in specific activities. **Indicator 5**: Explain national and international legislation systems and organizations dealing with veterinarian's duty and role in animal welfare.

4. Course requirements and policies
- Late homework: Score will be deducted for late homework submission as follows: 1 point for day 1; 2 points for day 2; 3 points for day 3;….., i.e. deduction = 1+2+3 = 6 points for 3 days later than deadline.
- Make-up exams: Make-up exams are applied only for those who missed mid-term/final exams with relevant reasons.
- Ethical policy: Any cheating/fraudulence will be punished as regulated.
- Exceptional circumstances:

VIII. Text books and other learning resources
* *Text Books/Lecture Notes:*
1. Dương Văn Nhiệm (2022). **Bài giảng Phúc lợi động vật** (biên soạn theo chương trình đào tạo, cập nhật thường xuyên và gửi cho sinh viên mỗi học kỳ), Khoa Thú y, Học viện Nông nghiệp Việt Nam. *(main lecture note of the course "Animal Welfare" updated and provided by teacher in the 1st class meeting)*

* **Other learning resources***:*

1. Dawkins, M. S. (2021). *The science of animal welfare: Understanding what animals want*. Oxford University Press, USA.

2. Nguyễn Bá Mùi, Phạm Kim Đăng, và Nguyễn Thi Phương Giang (2022). **Bài giảng Tập tính học và Phúc lợi động vật** (biên soạn theo chương trình đào tạo, cập nhật thường xuyên). Khoa Chăn nuôi, Học viện Nông nghiệp Việt Nam. *(a relevant lecture note of the course "Animal Behaviors and Welfare")*.

3. WSPA (2013). **Nhập môn Phúc lợi động vật.** Chuỗi bài giảng 34 module, CD-ROM bản dịch tiếng Việt *(Vietnamese translation of the syllabus* **'Concepts in Animal Welfare'** *2nd edition, WSPA, 2007)*.

* Research and research results:

1. Sinclair M, Idrus Z, **Nhiem DV**, Katawatin S, Todd B, Burn GL, Phillips CJC. Motivations for Industry Stakeholders in China, Vietnam, Thailand and Malaysia to Improve Livestock Welfare. Animals (Basel). 2019 Jul 4;9(7):416. doi: 10.3390/ani9070416. PMID: 31277448; PMCID: PMC6680502.

2. Sinclair, M; Zito, S; Idrus, Z; Yan, W; **Nhiem, DV**; Lampang, P Na; Phillips, CJC, 2017. Attitudes of stakeholders to animal welfare during slaughter and transport in SE and E Asia. Animal Welfare, Volume 26, Number 4, November 2017, pp. 417-425(9).

3. Ling, R.Z., Zulkifli, I., Lampang, P.N., **Nhiem, D.V**., Wang, Y., Phillips, C.J.C., 2016. Attitudes of students from south-east and east Asian countries to slaughter and transport of livestock. Animal Welfare, 25, 3, 377-387.

IX. Course outline

Week	Content	CELO criteria to be met
1	*A/* **Main contents***:* (3 hours) **Theory** *(3 hours)***:** **CHAPTER I. CONCEPTS IN ANIMAL WELFARE** 1.1. Introduction to the subject 1.2. Concepts in animal welfare - definition and terms in AW; 3 concepts of AW 1.2.1. Naturalness and behaviors 1.2.2. Importance of natural behaviors expression of animals 1.2.3. AW assessment and "5 Freedoms"	CELO1
	B/ **Self-study at home**: *(6 hours)* Read Modules 1 &2 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
2	*A/* **Main contents***:* (3 hours) **Theory** *(2 hours)***:** **CHAPTER II. ANIMAL WELFARE IN LIVESTOCK PRODUCTION** 2.1. Factors affecting welfare of farm animals 2.1.1. Husbandary conditions 2.1.2. Reproduction and breeding 2.1.3. Transportation	CELO1, CELO3, CELO4

	2.1.3. Veterinary service	
	Presentation & discussion: *(1 hours)*	
	Topic 01: What is AW? Deferentiate animal welfare (AW) and animal right (AR)? Three concepts of AW and relations among them?	
	B/ Self-study at home: *(6 hours)* Read Modules 3, 4, 5, 6, 7, 8, 9 & 15 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
3	**A/ Main contents:** *(3 hours)* **Theory:** *(2 hours)* **CHAPTER II. ANIMAL WELFARE IN LIVESTOCK PRODUCTION** …(continued) 2.2. Assessment of farm animal welfare 2.2.1. AW assessment based on animal behaviors 2.2.2. AW assessment based on production performance	CELO1, CELO3, CELO4
	Presentation & discussion: *(1 hours)* Topic 02: What is "5 Freedoms"? Relations among them and application in livestock production?	
	B/ Self-study at home: *(6 hours)* Read Modules 3, 4, 5, 6, 7, 8, 9 & 15 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
4	**A/ Main contents:** *(3 hours)* **Theory:** *(2 hours)* **CHAPTER II. ANIMAL WELFARE IN LIVESTOCK PRODUCTION**… (continued, 2 hours) 2.2.3. AW assessment based on physiological parameters 2.2.4. Mental state and stress 2.2.5. The hypothalamic, pituitary, adrenal (HPA) axis	CELO1, CELO3, CELO4
	Presentation & discussion: *(1 hours)* Topic 03: What is animal behavior? Application of animal behaviors in AW assessment?	
	B/ Self-study at home: *(6 hours)* Read Modules 3, 4, 5, 6, 7, 8, 9 & 15 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
5	**A/ Main contents:** *(3 hours)* **Theory:** *(2 hours)* **CHAPTER III. WELFARE OF PET ANIMALS** 3.1. Factors affecting welfare of pet animals 3.2. Requirements of owned pet animals and stray animals 3.3. Animal population density and neutering 3.4. Vaccination and disease control	CELO1, CELO4, CELO5
	Presentation & discussion: *(1 hours)* Topic 04: AW assessment based on diseases and production?	
	B/ Self-study at home: *(6 hours)* Read Modules 18 & 19 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	

6	A/ **Main contents:** *(3* hours*)*	CELO1,
	Theory: *(2 hours)*	CELO4,
	CHAPTER III. WELFARE OF PET ANIMALS	CELO5
	...(continued,1 hours)	
	3.5. Surgeries and pet animal welfare	
	3.6. Euthanasia	
	CHAPTER IV. WELFARE OF OTHER TYPES OF ANIMALS (1 hours)	
	4.1. Wild animals and captive wild animals	
	4.2. Zoo animals and stress assessment	
	Presentation & discussion: *(1* hours*)*	
	Topic 05: Common welfare problems of pet animals? Causes and solutions?	
	B/ **Self-study at home**: *(6* hours*)*	
	Read Modules 21, 23, 24 & 25 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
7	A/ **Main contents:** *(3* hours*)*	CELO1,
	Theory: *(2* hours*)*	CELO2,
	CHAPTER IV. WELFARE OF OTHER TYPES OF ANIMALS	CELO4
	... (continued, 1 hours)	
	4.3. Game animals and stress assessment	
	4.4. Working animals and welfare assessment …	
	CHAPTER V. ANIMAL WELFARE AND THE HUMAN (1 hours)	
	5.1. Human – Animal relation	
	5.2. Role of AW in school	
	5.3. Role of AW in humane education	
	5.4. Role of AW in community reintegration	
	5.5. Role of AW in evironmental protection education	
	Presentation & discussion: *(1* hours*)*	
	Topic 06: Animal welfare roles in the human society.	
	B/ **Self-study at home**: *(6* hours*)*	
	Read Modules 11, 29 and 31 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
8	A/ **Main contents:** *(3* hours*)*	CELO2,
	Theory: *(2* hours*)*	CELO3,
	CHAPTER V. ANIMAL WELFARE AND THE HUMAN SOCIETY...(continued,1 hours)	CELO4
	5.6. Advanced concepts	
	5.6.1. AW and changes in human behaviors	
	5.6.2. AW and changes in humane education methods	
	CHAPTER VI. VETERINARIANS AND ANIMAL WELFARE (1 hours)	
	6.1. Role of veterinarians	
	6.1.1. In livestock production	
	6.1.2. In conservation	
	6.1.3. In community education	
	Presentation & discussion: *(1* hours*)*	

		Topic 07: Roles of veterinarians in animal welfare protection? What is your expectation in future application of AW?	
		B/ Self-study at home: *(6 hours)* Read Modules 30, 31, and 32 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
9		**A/ Main contents:** *(3 hours)* **Theory:** *(2 hours)* **CHAPTER VI. VETERINARIANS AND ANIMAL WELFARE** ...(continued, 1 hours) 6.2. Animal welfare and animal disease treatment efficiency 6.3. Animal health legislation and animal welfare protection **CHAPTER VII. WELFARE OF ANIMALS IN EDUCATION AND RESEARCH** (1 hours) 7.1. Welfare of animals used in education 7.1.1. Teachers 7.1.2. Learners 7.1.3. Environment 7.1.4. Anesthesia and analgesia 7.1.5. Alternatives of live animals used in education **Presentation & discussion:** *(1 hours)* Topic 08: What are 3Rs? Appication of 3Rs in education and research?	CELO1, CELO3, CELO4, CELO5
		B/ Self-study at home: *(6 hours)* Read Modules 22 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	
10		**A/ Main contents:** *(3 hours)* **Theory:** *(2 hours)* **CHAPTER VII. WELFARE OF ANIMALS IN EDUCATION AND RESEARCH**... (continued, 2 hours) 7.2. Welfare of animals used in research 7.2.1. State of lab animals and research results 7.2.2. 3Rs and its application in animal related research **CHAPTER VIII. ANIMAL WELFARE ORGANIZATIONS AND LEGISLATION** (1 hours) 8.1. Local organizations 8.2. International organizations 8.3. Animal welfare legislation.	CELO1, CELO3, CELO4, CELO5
		B/ Self-study at home: *(6 hours)* Read Modules 27, 28, and 32 in CAW syllabus, 2nd edition or equivalent modules in CAW 3rd edition.	

X. Facility and other requirements:

- Class room: large enough with internet connection (LAN/wifi)
- Equipments: multimedia projector, board, flipchart, microphone.
- E-learning

	Hanoi, date…..month……year……
HEAD OF DEPARTMENT	**LECTURER**
(Full name and signature)	*(Full name and signature)*
	Dương Văn Nhiệm
DEAN OF FACULTY	**PRESIDENT**
(Full name and signature)	*(Full name and signature)*

APPENDIX
LIST OF LECTURERS AND ASSISSTANTS FOR THE COURSE

Lecturer (Coodinator)

Full name: **Dương Văn Nhiệm**	Title: PhD
Address: Room 212, Dept. of Veterinary Public Health, Faculty of Veterinary Medicine, Vietnam National University of Agriculture (VNUA), Trâu Quỳ - Gia Lâm – Hà Nội	Phone/mobile: 0974.432.678
Email: dvnhiem@vnua.edu.vn OR dvnhiem@yahoo.com	Web:
Contact with lecturers: in order of priority as follows: email –Zalo/SMS - phone – in person - Location: any as convenient for both students and teacher. - Time: after 8am and before 9pm, except noon time (12pm – 2pm)	

Lecturer

Full name: **Đồng Văn Hiếu**	Title: PhD
Address: Room 212, Dept. of Veterinary Public Health, Faculty of Veterinary Medicine, Vietnam National University of Agriculture (VNUA), Trâu Quỳ - Gia Lâm – Hà Nội	Phone/mobile: 0914.977.587
Email: dvhieuvet@vnua.edu.vn OR dvhieuvet1984@gmail.com	Web:
Contact with lecturers: in order of priority as follows: email –Zalo/SMS - phone – in person - Location: any as convenient for both students and teacher. - Time: after 8am and before 9pm, except noon time (12pm – 2pm)	

ALIGNMENT BETWEEN COURSE EXPECTED LEARNING OUTCOMES, TEACHING AND ASSESSMENT METHODS

CELOs	CELO1	CELO2	CELO3	CELO4	CELO5
Teaching & studying					
Lecturing	x	x	x	x	x
Presentation & Discussion	x	x	x	x	x
Assessment					
Rubric 1. Attendance (10%)				x	x
Rubric 2. Presentation & Discussion (15%)	x	x	x	x	x
Rubric 3. Mid-term exam (15%)	x	x			

Rubric 4. Final exam (60%)	x	x			

RECENT REVISIONS OF COURSE SPECIFICATION

- 1st time: 7/ 2018: revising and updating contents of the course; integrating new research findings into the syllabus:

+ Attitudes of students from south-east and east Asian countries to slaughter and transport of livestock;

+ Attitudes of stakeholders to animal welfare during slaughter and transport in SE and E Asia.

- 2nd time: 7/ 2019: revising and updating contents of the course; adding a rubric for presentation & discussion.

- 3rd time: 7/ 2020: revising and updating contents of the course; integrating new research findings into the syllabus::

+ Motivations for Industry Stakeholders in China, Vietnam, Thailand and Malaysia to Improve Livestock Welfare.

- 4th time: 7/2021: revising and updating contents of the course.