Module designation	Poultry Behavior and Welfare
Semester(s) in which the module is taught	Even semester
Person responsible for the module	drh. Bambang Ariyadi, MP., Ph.D. Dr. Ir. Sri Sudaryati, MS. Prof. Ir. Wihandoyo, MS., Ph.D. Dr. Ir. Heru Sasongko, MP.
Language	Bahasa and English
Relation to curriculum	Specialization's Elective
Teaching methods	Classical lecture and discussion

Workload (incl. contact hours, self-study hours)	Total workload: 119 hours
	
	Contact hours:
	   – Lecture: 35 hours
	   – Academic activity: 42 hours
	Private study: 42 hours

Credit points	3/0
Required and recommended prerequisites for joining the module	None

Module objectives/intended learning outcomes	Course Outcomes (CO):
	1. Students understand the basic concepts of behaviour starting from observing instincts in livestock since hatching. Students understand that livestock need action and time to adapt to environmental changes through physiological morphological processes. Students understand that stress is the inability of livestock to acclimatize and adapt to environmental changes that are given suddenly or gradually. Students understand that the nerve centre is the control centre for the formation of specific behaviours to adapt.
	2. Students are able to identify behaviours that develop into positive or negative so that they can improve the production system according to their level of comfort. Students are able to evaluate behaviour to improve production management by considering the livestock comfort. Students are able to feel the "feeling of livestock" which is uncomfortable due to environmental factors that are not suitable with the needs of livestock. Students are able to evaluate livestock needs based on the introduction of basic behaviours, such as sand bathing and living in groups.
	3. Students are able to explain that basic living needs are important in raising poultry. Students are able to improve the management of poultry farms based on the need of livestock to increase production. Students are able to conduct research on livestock behaviour in accordance with available criteria and methods.
	Expected Learning Outcomes:
	– Attitudes and Behaviors:
	   1. Piety to God and be able to show religious attitude and maintain the humanity values in carrying the task, which is based on religion, moral, and ethics. (CO1)
	   2. Be proud and love the homeland show nationalism, and

contribute to the improvement of the life quality in the community, nation and country, and the advancement of civilization according to Pancasila. (CO1)

3. Showing the social sensitivity and attention to the community and environment by respecting the culture diversity, view, religious, beliefs, and other people's opinion, and also obey the rules. (CO1)

4. Be accountable in carrying the professional practice that includes ability to accept accountability towards decision and professional action. It shall be according to the scope of the practice under their responsibility and laws. (CO1)

- Mastery in Sciences:
  1. Able to master the current animal science and its application theory. (CO1)
  2. Able to master the livestock production science, animal nutrition and fed science, animal products technology, and the livestock social economics in relation to food security and environment. (CO1)
  3. Able to master the design, management, and development of livestock research. (CO1)

- Special skills:
  1. Able to make innovation in the animal husbandry based on the development of science and technology. (CO1, CO3)
  2. Able to design interdisciplinary and multidisciplinary research in the animal husbandry. (CO1, CO3)
  3. Able to formulate and solve problems in the national development especially in terms of animal husbandry. (CO1, CO3)
  4. Able to solve problems and anticipate issues in the development of animal science and industry. (CO1, CO3)

- General skills:
  1. Able to develop logical, critical, systematic, and creative thought through scientific research, creation of design in the science and technology, which pays attention and applies humanity values according to their expertise. The graduates are able to arrange scientific concept and the study result based on the principles, procedures, and scientific ethics. (CO1, CO2)
  2. Able to identify the science that becomes their research object and position it to a research map by using information technology in the context of science development and expertise implementation developed through interdisciplinary or multidisciplinary approaches. (CO1, CO2)
  3. Able to make a decision in the context of solving problems in the development of science and technology, which pays attention and applies humanity values based on analysis study or experiment towards information and data. (CO1, CO2)
  4. Able to communicate the result of reasoning and scientific research in form of thesis and scientific writing responsibly based on academic ethics in the accredited national

	journal. (CO1, CO2)
	5. Able to maintain the academic integrity generally and avoid the plagiarism practice. (CO1, CO2)
	6. Able to communicate spoken and written English effectively by using the information technology for the development of animal science and its implementation. (CO1, CO2)
Content	This course focuses on studying behavior related to the comfort and physiology of poultry. Starting with several environmental factors that affect the physiology of poultry, especially the hormonal system, laying physiology, feed physiology and stress conditions. Poultry will give a behavioral reaction. The existence of this physiological relationship with behavior is studied specifically, especially its relationship with their performance. The relationship between constitution and body morphology is a close relationship to physiology and behavior to the environment as a condition. Behavioral reactions as constituents are controlled by the central nervous system to the environment as a condition. This relationship needs attention to the maintenance system, because it will indirectly provide a specific reaction to the formation of behavior. Some forms of behavior that will be studied are feeding behavior, mating behavior, social behavior, comfort behavior. Especially for fear behavior in terms of physiological, because it is closely related to the adaptability and biosecurity of livestock to achieve a level of comfort in livestock. Several behavioral research models have also been developed to better understand the relationship between constituents and livestock conditions. The learning method is done face-to-face and also shows a short video of the formation of livestock behavior and the reaction of livestock to several objects. The assessment method emphasizes knowledge and the introduction of aspects of behavioral changes in the form of exams.

Exams and assessment formats	Assessment Components	Course Outcomes (CO)	Percentage (%)
	1. Midterm exam (written test, take home exam, paper assignment)	CO1	35
	2. Final exam (written test, take home exam, paper assignment)	CO2 & CO3	35
	3. Short quizzes	CO3	10
	4. Presentation	CO3	10
	5. Take-home written assignments	CO3	10

Grade and Score			
Grade	Score	Grade	Score
A	≥80	C+	45-49,9
A-	75-79,9	C	40-44,9
A/B	70-74,9	C-	35-39,9
B+	65-69,9	C/D	30-34,9

	B	60-64,9	D+	25-29,9
	B-	55-59,9	D	20-24,9
	B/C	50-54,9	E	0-19,9
Study and examination requirements	The final grade in the module is composed of 35% performance on Midterm exam, 35% final exam, 10% quiz, 10% presentation, and 10% take-home written assignment. Students must have a final grade of 70% or higher to pass			
Reading list	Learning books and articles related to the topics.			