

Module designation	Feed Quality Control
Semester(s) in which the module is taught	Odd Semester
Person responsible for the module	Prof. Dr. Ir. Ali Agus, DAA., DEA., IPU. Prof. Dr. Ir. Ristianito Utomo, S.U., IPM. Ir. Cuk Tri Noviandi, S.Pt., M.Anim.St., Ph.D., IPM. Ir. Andriyani Astuti, S.Pt., M.Sc., Ph.D., IPM. Prof. Dr. Ir. Ali Agus, DAA., DEA., IPU. Prof. Dr. Ir. Ristianito Utomo, S.U., IPM. Ir. Cuk Tri Noviandi, S.Pt., M.Anim.St., Ph.D., IPM. Ir. Andriyani Astuti, S.Pt., M.Sc., Ph.D., IPM.
Language	Bahasa and English
Relation to curriculum	Specialization's elective
Teaching methods	Classical lecture, discussion, and lab works.
Workload (incl. contact hours, self-study hours)	Total workload: 82 hours Contact hours: <ul style="list-style-type: none"> - Lecture: 12 hours - Academic activity: 14 hours - Practicum: 42 hours Private study: 14 hours
Credit points	1/1
Required and recommended prerequisites for joining the module	None
Module objectives/intended learning outcomes	Course Outcomes (CO): <ol style="list-style-type: none"> 1. Understand the importance of feedstuffs quality control during the processing and finishing stage of finished feed production. 2. Understand the conditions of damaged feed, physically and chemically, the conditions of contaminated feed, the conditions of forged feed and its consequences. 3. Understand mechanism of forged feed to perform preventive action and feed quality control. Expected Learning Outcomes: - Attitudes and Behaviors: <ol style="list-style-type: none"> 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) - Mastery in Science: <ol style="list-style-type: none"> 1. Able to master the current animal science and its application theory. (CO2) 2. Able to master the design, management, and development of livestock research. (CO3) - Special skills: <ol style="list-style-type: none"> 1. Able to make innovation in the animal husbandry based on the development of science and technology. (CO3) 2. Able to formulate and solve problems in the national development especially in terms of animal husbandry. (CO2) 3. Able to solve problems and anticipate issues in the development of animal science and industry. (CO2)
Content	Indonesia is a tropical land with two seasons: rainy and dry season.

	<p>This condition caused fluctuation in the food supply. The supply of concentrated feed derived from grains and agricultural by-products are strongly influenced by harvesting season. The supply of feed tends to be abundant during harvesting season and far less available on post-harvest and planting season.</p> <p>Both abundant and lack of supply will have problems. When the supply is abundant, there are lot of low-quality feed, but when it is lack of supply, there are a lot forged fed. As a result of this forgery, the nutrient content of feed material can exceed the actual (overestimated). And the result is, livestock do not get the expected nutrients, and cause declined in productivity.</p> <p>Feed Quality Control course is designed to equip students with competencies in determining and controlling the quality of feed by looking at the authenticity of feed ingredients. It is because the quality of feedstuffs strongly determines the quality of finished feed product. In addition to theory, students also perform assessment to feedstuffs macroscopically, microscopically, and chemically. Microscopic assessment is carried out by using a three- dimensional microscope, while the chemical assessment is carried out by using chemistry that fits to the purpose of the assessment.</p>			
Exams and assessment formats	Assessment Components	Course Outcomes (CO)	Percentage (%)	
	1. Midterm exam (written test, take home exam, paper assignment)	CO1, CO2 & CO3	35	
	2. Final exam (written test, take home exam, paper assignment)	CO1, CO2 & CO3	35	
	3. Practicum	CO1, CO2 & CO3	30	
	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	<p>The final grade in the module is composed of 35% performance on Midterm exam, 35% final exam, 30% presentation. Students must have a final grade of 70% or higher to pass</p>			
Reading list	<ul style="list-style-type: none"> - American Feed Industry Association, 1985. Feed Manufacturing Technology III. - R.R.McEllhiney Ed., 1701 North Fort Myer Drive, Alington, Virginia USA 22209. - American Soybean Association, 2000. Feed Technology and Nutrition Workshop. R.A. - Ensminger, M.E. and C.G. Oletine, 1978. Feeds and Nutrition : 			

	<p>Complete. First Edition</p> <ul style="list-style-type: none">- The Ensminger Publishing Company, 3699 East Sierra Avenue, Clovis, California 93612- Snelson G.P. 1987. Grain Protectants. Australian Center for International Agricultural Research (ACIAR). Canberra.- Hasil-hasil penelitian dan jurnal yang berkaitan dengan konservasi hijauan pakan dan pengolahan konsentrat.
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