



UNIVERSITAS SUMATERA UTARA (USU)
FACULTY OF AGRICULTURE
Animal Sciences Study Programme

Document Code
(to follow)

SEMESTER LEARNING PLAN (RPS)

COURSE (MK)	CODE	Course Group	WEIGHT (credits)		SEMESTER	Date of Preparation
Science of Animal Nutrition	PTN1201	Exact	Theory = 2	Practice = 1	II	1 December 20
AUTHORISATION / ATTESTATION	RPS Developer Lecturer		Approved Head of Study Programme		Chairman of LINK-UP USU	
	Prof. Dr. Ir. Yunilas, MP Dr. Ir. Ma'ruf Tafsini, M.Si., IPM Dr. Ade Trisna, S.Pt., MM		Dr. Ir. Ma'ruf Tafsini, M.Si, IPM		Prof. Dr Dwi Suryanto M.Sc.	
Learning Outcomes	LO-Study Programme Charged to Course					
	LO01	Able to apply logical, critical, systematic and innovative thinking through the approach and implementation of animal science technology by applying the character of BINTANG				
	LO06	Supervise and evaluate the completion of assigned work and be able to manage learning independently throughout life				
	LO09	Able to manage and implement aspects of efficient feed supply and technology				
	LO11	Able to develop and understand and apply a variety of best techniques and methods that combine theory and practice relevant to animal husbandry expertise.				
	Course Learning Outcomes (CLO)					CLO Weight
	CLO018: Able to explain food substances and their utilisation in ruminant and non-ruminant livestock					16.67%
	CLO0601: Able to explain the process of digestion, absorption, and metabolism of food substances for livestock					33.33%
	CLO0901: Able to analyse various evaluations of nutrient utilisation for livestock, nutrient deficiencies, and their interactions.					37.50%
	CLO1101: Able to implement the latest scientific developments in animal nutrition science					12.50%
	End Capability of Each Learning Stage (Sub-CLO)					
	Sub-CLO1	After attending this lecture, students will be able to know the lecture contract and the scope of animal nutrition science.				
Sub-CLO2	After attending this lecture, students will be able to explain the definition, classification of feed and its function for the livestock body.					

	Sub-CLO3	After attending this lecture, students will be able to explain the methods of analysing the nutritional content contained in animal feed ingredients.										
	Sub-CLO4	After attending this lecture, students will be able to explain the anatomy and physiology of the livestock body.										
	Sub-CLO5	After attending this lecture, students will be able to explain the digestive system and process in each group of livestock.										
	Sub-CLO6	After attending this lecture, students will be able to explain the process of protein digestion and metabolism in the livestock body.										
	Sub-CLO7	After attending this lecture, students will be able to explain the process of carbohydrate digestion and metabolism in livestock body.										
	Sub-CLO8	After attending this lecture, students will be able to explain the process of fat digestion and metabolism in the livestock body.										
	Sub-CLO9	After attending this lecture, students will be able to explain the metabolic process of vitamins and minerals in the body of livestock.										
	Sub-CLO10	After attending this lecture, students will be able to explain the metabolic process and energy utilisation in the livestock body.										
	Sub-CLO11	After attending this lecture, students will be able to explain the definition, types and effects of anti-nutrients in the livestock body.										
Correlation of CLO with Sub-CLO		Sub-CLO1	Sub-CL O2	Sub-CL O3	Sub-CLO4	Sub-CL O5	Sub-CL O6	Sub-CLO7	Sub-CL O8	Sub-CLO9	Sub-CLO10	Sub-CLO11
	CLO018	√	√		√	√						
	CLO0601				√	√	√	√	√	√	√	√
	CLO0901		√	√		√	√	√	√	√	√	√
	CLO1101		√	√								√
Brief Course Description	After completing the Animal Nutrition Science course, students are expected to become graduates who are able to develop their own business (become entrepreneurs) independently by thinking logically, critically and systematically in applying and developing the knowledge they gained about animal nutrition. This course is conducted with the language of instruction, namely Indonesian, and face-to-face meetings conducted 14 times consisting of structured assignments, <i>case methods</i> , and practicum both offline and online.											
Study Material:	BK02 Basic Animal Science BK04 Animal Nutrition and Feed Science											
Learning Materials	<ol style="list-style-type: none"> 1. Scope of livestock nutrition science 2. Definition, classification and function of nutrients for the livestock body 											

	<ol style="list-style-type: none"> 3. Analyse the nutrient content of feed ingredients 4. Anatomy and physiology of the livestock body 5. Digestive system and processes in livestock 6. Processes and metabolism of protein in the livestock body 7. Processes and metabolism of carbohydrates in the livestock body 8. Processes and metabolism of fat in the livestock body 9. Processes and metabolism of vitamins and minerals in the livestock body 10. Metabolic processes and energy utilisation in the livestock body 11. Determinants, types and effects of anti-nutrients on the livestock body
References	<ol style="list-style-type: none"> 1. Kamal, M. 1999. Basic Animal Nutrition. Animal Food Laboratory, Department of Animal Nutrition and Diet, Faculty of Animal Science, UGM. Yogyakarta. 2. Parakkasi, A. 1994. Nutrition and Feeding Science of Monogastric Livestock. Publisher Angkasa. Bandung. Prawirokusumo, S. 1994. Comparative Nutrition Science. BPFE. Yogyakarta 3. Soejono, M. 1990. Feed Analysis and Evaluation. Faculty of Animal Husbandry, Gadjah Mada University, Yogyakarta. 4. Usman, A. 2012. Animal Nutrition Learning Diktat. Published for own use. Faculty of Animal Husbandry, UNISMA. Malang 5. Usman, A. and S. Susilowati. 2006. Dry matter digestibility and conversion test of complete feed using a mixture of onggok and cow rumen contents in fattening Etawah Peranakan goats. Scientific Journal of Rekasatwa Dynamics 2 (1): 22-26. 6. Jayanegara, A., Ridla, M., Laconi, E. B and Nahrowi, 2019. Anti-nutrient Components in Feed. IPB Press, Bogor 7. Singh, P.K., 2015. Animal Feed Additive. New India Publishing Agency, Vikas Surya Plaza, CU Block, L.S.C. Market, Pitam Pura, New Delhi-110034, India. 8. Preston, T.R and Leng, R.A., 1987. Matching Ruminant Production Systems with Available Resources in the Tropics and Subtropics. Penambul Books. Armidale, Australia 9. Parakkasi, A. 1995. Nutrition and Feeding Science of Domesticated Livestock. UI-Press, Jakarta 10. Tillman, A.D., H. Hartadi; S. Rekshohadiprojjo; S. Prawirokusumo and S. Lebdosoekojo. 1991. Basic Animal Food Science. Gadjah Mada University Press, Yogyakarta 11. Pamungkas, D. and Anngraeny, Y.N., 2006. Probiotics in ruminant feed. Wartazoa 16:82-91 12. Pietras, M. 2001. The effect of probiotics on selected blood and meat parameters of broiler chickens. J. Anim. Feed. Sci. 10 (suppl 2):297-302. 13. Salminen, S., A. von Wright, L. Morelli, P. Martean, D. Brassart, W. M. de Vos, R. Fonden and T. Matills-Sandholm. 1998. Demonstration of safety of probiotics-A Review. Intl. J. Food Microbiol. 44:93-106. 14. Sharifi, S.D, Golestani, I.G , Yaghobfar, A, Khadem, A and Pashazanussi, H., 2013. Effects of supplementing a multienzyme to broiler diets containing a high level of wheat or canola meal on intestinal morphology and performance of chicks. Journal of Applied Poultry Reserarch 22:671-679.
	<p>Additional:</p> <ol style="list-style-type: none"> 1. National and international journals

	2. Practicum guide						
Lecturer							
Conditional Subjects	Prof. Dr. Ir. Yunilas, MP Dr. Ir. Ma'ruf Tafsir, M.Si., IPM Dr. Ade Trisna, S.Pt., MM						
(1)	End ability of each learning stage (Sub-CLO) (2)	Assessment		Forms of Learning; Learning Methods; Student Assignment; [Estimated Time]		Study Material (Learning Materials) (7)	Assessment Weight (%) (8)
		Indicators (3)	Criteria and Techniques (4)	Asynchronous (5)	Synchronous (6)		
1	Sub-CLO1: After attending this lecture, students will be able to explain the scope of animal nutrition science.	Accuracy in explaining an overview of the role and relationship of animal nutrition science with other sciences.	Criteria: - Techniques: <i>Non test Task</i>	Asynchronous (5) KM+PT (1 week x 3 credits x 120 minutes) Learning Methods: <i>Self-Paced Learning</i> Activities: a. Attendance b. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials Moda (Learning Management System): class.usu.ac.id	Synchronous (6) TM (1 week x 2 credits x 50 minutes) Learning Methods: a. Lecture b. Discussion Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	Subject matter: a. Course Contract b. Overview of the role and relationship of animal nutrition science with other sciences	Task (CLO)
2	Sub-CLO 2: After attending this lecture, students will	a. Accuracy in explaining the meaning of feed nutrition and its	Criteria: Using an assessment rubric	Asynchronous (5) KM+PT (1 week x 3 credits x 120 minutes) Learning Methods:	Synchronous (6) TM (1 week x 2 credits x 50 minutes) Learning Methods:	Subject matter: a. Definition of livestock nutrition	This sub-CLO will be assessed during

	be able to explain the definition, classification of feed and its function for the livestock body.	function for the livestock body b. accuracy in explaining the <i>assessment of</i> livestock nutrition	Techniques: <i>Non test</i>	<i>Self-Paced Learning</i> Activities: a. Attendance Moda (Learning Management System): class.usu.ac.id	a. Lecture b. Discussion Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	b. Differences in nutrition and feed ingredients c. Grouping of feed ingredients d. Evaluation of livestock nutrition science	UTS weight 10% percent of UTS assessment weight (20%).
3	Sub-CLO 3: After attending this lecture, students will be able to explain the methods of analysing the nutritional content contained in animal feed ingredients.	a. Accuracy in explaining the types of methods for analysing the nutritional content of feed ingredients b. Accuracy in explaining proximate analysis, van soest, etc. c. accuracy in explaining the <i>assessment of</i> livestock nutrition	Criteria: Using an assessment rubric Techniques: <i>Non test</i>	KM+PT (1 week x 3 credits x 120 minutes) Learning Methods: <i>Self-Paced Learning</i> Activities: a. Attendance Moda (Learning Management System): class.usu.ac.id	TM (1 week x 2 credits x 50 minutes) Learning Methods: a. Lecture b. Discussion Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	Subject matter: a. Types/methods of analysing the nutrient content of feed ingredients b. Proximate analysis, van soest etc c. Benefits of nutrient analysis of feed ingredients d. Evaluation of livestock nutrition science	This sub-CLO will be assessed during UTS weight 10% percent of UTS assessment weight (20%).
4	Sub-CLO 4:	a. Accuracy in explaining the	Criteria:	KM+PT (1 week x 3 credits x 120 minutes)	TM (1 week x 2 credits x 50 minutes)	Subject matter:	Quiz 1 (CLO

	After attending this lecture, students will be able to explain the anatomy and physiology of the livestock body.	<p>anatomy and physiology of the ruminant body</p> <p>b. Accuracy in explaining the anatomy and physiology of the body of non-ruminant livestock</p> <p>c. accuracy in explaining the assessment of livestock nutrition</p>	<p>Using an assessment rubric</p> <p>Techniques: <i>Test:</i> <i>Quiz</i></p>	<p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. Attendance b. Completing quiz</p> <p>Quiz 1: <i>Quiz to measure students' understanding of the anatomy and physiology of the livestock body.</i></p> <p>Moda (Learning Management System): class.usu.ac.id</p>	<p>Learning Methods: a. Lecture b. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p> <p>Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book</p>	<p>a. Anatomy and physiology of the ruminant body</p> <p>b. Body anatomy and physiology of non-ruminant livestock</p> <p>c. Evaluation of livestock and plantation integration</p>
5	<p>Sub-CLO 5:</p> <p>After attending this lecture, students will be able to explain the digestive system and process in each group of livestock.</p>	<p>a. Accuracy in explaining the digestive organs of ruminants and non-ruminants</p> <p>b. Accuracy in the digestive system of ruminants</p> <p>c. Accuracy in explaining the digestive system of non-ruminant livestock</p> <p>d. accuracy in explaining the</p>	<p>Criteria: Using an assessment rubric</p> <p>Techniques: <i>Test:</i> <i>Quiz</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. Attendance b. Completing the quiz</p> <p>Quiz 2: <i>Quiz to measure students'</i></p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p>Learning Methods: a. Lecture b. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p> <p>Media:</p>	<p>Subject matter: a. Digestive organs of ruminants and non-ruminants b. Digestive system of ruminants c. Digestive system of non-ruminant livestock d. Evaluation of livestock</p>

& CLO (0601)

Quiz 1.5 (CLO CLO C & C 090

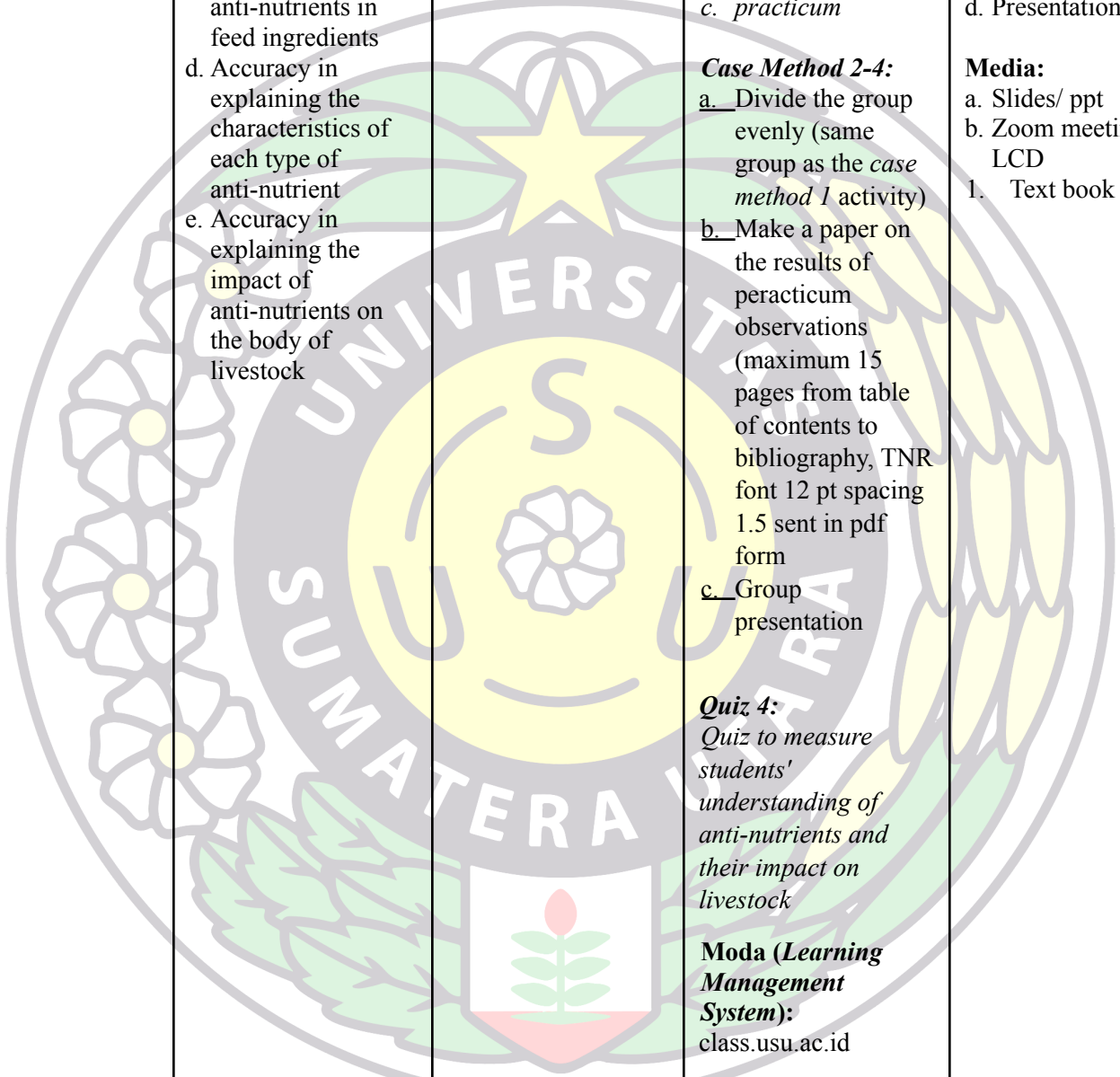
		assessment of livestock nutrition		understanding of the carrying capacity of plantations for livestock development	a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	nutrition science
6-7	Sub-CLO 6: After attending this lecture, students will be able to explain the process of protein digestion and metabolism in the livestock body.	a. Accuracy in explaining the differences in protein groups b. Accuracy in explaining protein metabolism in the body of ruminants c. Accuracy in explaining protein metabolism in the body of non-ruminant livestock d. Accuracy in explaining the results of protein metabolism in ruminant and non-ruminant livestock	Criteria: Assessment Rubric Techniques: <i>Test:</i> a. Quiz b. Case method	KM+PT (2 weeks x 3 credits x 120 minutes) Learning Methods: <i>Self-Paced Learning</i> Activities: a. Recording attendance b. Completing quizzes and assignments c. Practicum Case Method 1: a. Divide the group evenly (lecturer divides) b. Make a practical report (observation of protein metabolism in ruminants and non-ruminants) for each group (A4;	TM (2 weeks x 2 credits x 50 minutes) Learning Methods: a. Lecture b. Discussion Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	Subject matter: a. Protein group b. Protein metabolism in ruminants c. Protein metabolism in non-ruminant livestock d. Differences in protein metabolism in ruminants and non-ruminants

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				<p>TNR 12 pt; max 5 pages containing observation results and documentation).</p> <p>Quiz 3: <i>Quiz to measure students' understanding of protein metabolism</i></p> <p>Moda (Learning Management System): class.usu.ac.id</p>			
8	MID SEMESTER EXAMINATION						20%
9	<p>Sub-CLO 7:</p> <p>After attending this lecture, students will be able to explain the process of carbohydrate digestion and metabolism in livestock.</p>	<p>Accuracy in explaining the process of carbohydrate metabolism in ruminant and non-ruminant livestock</p>	<p>Criteria: Using an assessment rubric</p> <p>Techniques: <i>Non test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. Attendance</p> <p>Moda (Learning Management System): class.usu.ac.id</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p>Learning Methods: a. Lecture b. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p> <p>Media: a. Slides/ ppt</p>	<p>Subject matter: a. Types and groups of carbohydrates b. Carbohydrate metabolism in ruminants and non-ruminants</p>	<p>This CLO will be assessed during UAS with a weight of 10% of the total UAS assessment weight (20%)</p>

					b. Zoom meeting/ LCD c. Text book		
10	<p>Sub-CLO 8:</p> <p>After attending this lecture, students will be able to explain the process of fat digestion and metabolism in the livestock body.</p>	<p>Accuracy in explaining the process of fat metabolism in ruminant and non-ruminant livestock</p>	<p>Criteria: Using an assessment rubric</p> <p>Techniques: <i>Non Test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. Attendance</p> <p>Moda (Learning Management System): class.usu.ac.id</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p>Learning Methods: a. Lecture b. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p> <p>Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book</p>	<p>Subject matter: a. Types of fat in a feed ingredient b. Fat metabolism in ruminants and non-ruminants</p>	<p>This CLO be assessed during UAS with a weight of 5% percent of the UAS assessment weight (20%)</p>
11	<p>Sub-CLO 9:</p> <p>After attending this lecture, students will be able to explain the metabolic process of vitamins and minerals in the body of livestock.</p>	<p>Accuracy in explaining the metabolic process of vitamins and minerals in ruminant and non-ruminant livestock</p>	<p>Criteria: Using an assessment rubric</p> <p>Techniques: <i>Non Test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. Attendance</p> <p>Moda (Learning Management System): class.usu.ac.id</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p>Learning Methods: c. Lecture d. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p> <p>Media:</p>	<p>Subject matter: a. Types of vitamins and minerals in a feed ingredient b. Vitamin and mineral metabolism in ruminants and non-ruminants</p>	<p>This CLO be assessed during UAS with a weight of 5% percent of the UAS assessment weight (20%)</p>

					<ul style="list-style-type: none"> a. Slides/ ppt b. Zoom meeting/ LCD c. Text book 		
12	<p>Sub-CLO 10:</p> <p>After attending this lecture, students will be able to explain the metabolic process and energy utilisation in the livestock body.</p>	<p>Accuracy in explaining the metabolic process and energy utilisation in ruminant and non-ruminant livestock.</p>	<p>Criteria: Using an assessment rubric</p> <p>Techniques: <i>Non Test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. Attendance</p> <p>Moda (Learning Management System): class.usu.ac.id</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p>Learning Methods: a. Lecture b. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p> <p>Media: a. Slides/ ppt b. Zoom meeting/ LCD c. Text book</p>	<p>Subject matter: Energy metabolism and utilisation in ruminants and non-ruminants</p>	<p>This CLO be assessed during UAS with a weight of 5% percent of UAS assessment weight (20%)</p>
13-15	<p>Sub-CLO 11:</p> <p>After attending this lecture, students will be able to analyse the anti-nutrients in feed ingredients.</p>	<ul style="list-style-type: none"> a. Accuracy in explaining the definition of anti-nutrients b. Accuracy in explaining the difference between anti-nutrients and toxins in feed ingredients c. Accuracy in explaining the types of 	<p>Criteria: Assessment Rubric</p> <p>Techniques: <i>Test: Quiz Case Method</i></p>	<p>KM+PT (2 weeks x 3 credits x 120 minutes)</p> <p>Learning Methods: <i>Self-Paced Learning</i></p> <p>Activities: a. <i>Recording attendance</i> b. <i>Completing quizzes and assignments</i></p>	<p>TM (2 weeks x 2 credits x 50 minutes)</p> <p>Learning Methods: a. Lecture b. Discussion</p> <p>Activities: a. Online/offline learning b. Class discussion c. Take notes on learning materials</p>	<p>Subject matter: a. Definition of anti-nutrient b. Definition of poison c. Types of anti-nutrients d. Differences in anti-nutritional characteristics e. Impact of anti-nutrients</p>	<p>PBL : Quiz 4 (CL 0601, 0901) CLO 1</p>

		<p>anti-nutrients in feed ingredients</p> <p>d. Accuracy in explaining the characteristics of each type of anti-nutrient</p> <p>e. Accuracy in explaining the impact of anti-nutrients on the body of livestock</p>		<p><i>c. practicum</i></p> <p>Case Method 2-4:</p> <p>a. Divide the group evenly (same group as the <i>case method 1</i> activity)</p> <p>b. Make a paper on the results of peracticum observations (maximum 15 pages from table of contents to bibliography, TNR font 12 pt spacing 1.5 sent in pdf form</p> <p>c. Group presentation</p> <p>Quiz 4: <i>Quiz to measure students' understanding of anti-nutrients and their impact on livestock</i></p> <p>Moda (Learning Management System): class.usu.ac.id</p>	<p>d. Presentation</p> <p>Media:</p> <p>a. Slides/ ppt</p> <p>b. Zoom meeting/ LCD</p> <p>1. Text book</p>	<p>on livestock body</p>
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Form of Evaluation	CLO018	CLO0601	CLO0910	CLO1101
Quiz	Quiz grading	Quiz grading	Quiz grading	Quiz grading
Task	Paper Assessment			
Case Method (presentation and participation in discussion, and lab report)		a. Presentation assessment rubric b. Practicum report	a. Presentation assessment rubric b. Practicum report	
Project Based Learning (PBL) (presentation and participation in discussion, and <i>practicum/field visit</i> report)	Presentation assessment rubric	a. Presentation assessment rubric b. Practicum report	a. Presentation assessment rubric b. Practicum report	a. Presentation assessment rubric b. Practicum report
UTS (Mid Exam)	Mid-term test assessment (multiple choice questions and essay questions)		Mid-term test assessment (multiple choice questions and essay questions)	Mid-term test assessment (multiple choice questions and essay questions)

UAS (Final Exam)		UAS Assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	
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Assessment Plan

Form of Evaluation	Weight (100%)	Frequency
Quiz	5	4 (held on week 4, 5, 7, 11)
Task	5	1 (held on week 1)
Case Method	20	2 (held on week 6,7)
PBL	30	2 (held on week 12,13)
UTS (Mid Semester Examination)	20	1 (held on week 8)
UAS (Final Semester Examination)	20	1 (held on week 16)
Total	100%	

Explanation:

a) Quiz 5%

During the semester there will be 2 quizzes organised in class. The quizzes will be conducted via e-learning and are scheduled in advance. The material tested is announced by the lecturer and written in the RPS. During the semester there will be 2 structured assignments. The assignments given are an effort to add insight by making a resume related to the material written in the SSP

b) Task 5%

During the semester there will be 1 task organised in class. The task will be conducted via e-learning and are scheduled in advance. The material tested is announced by the lecturer and written in the RPS. During the semester there will be 2 structured assignments. The assignments given are an effort to add insight by making a resume related to the material written in the SSP.

c) Case Method 20%

During the semester there will be case methods, each student will make a paper and report on each case method in groups. Case method in this course is conducted 2 times. The papers that have been made will be presented by students. Students will be assessed according to their participation in the presentation and accuracy in the presentation, as well as their participation in the question and answer session when other groups present.

- d) Project based learning 30%
During the semester there will be PBL, each student will make a paper and report from each PBL in groups. PBL in this course is conducted 2 times. The papers that have been made will be presented by students. Students will be assessed according to their participation in the presentation and accuracy in the presentation, as well as their participation in the question and answer session when other groups make presentations.
- e) UTS 20%
The midterm exam covers all the material that has been covered since the beginning of the semester until the 7th meeting, both readings and lectures. This exam is conducted in class with multiple choice, short answer, and essay questions.
- f) UAS 20%
The end-of-semester exam covers all the material that has been covered from the 9th to the 15th meeting, both readings and lectures. This exam is conducted in class with multiple choice, short answer, and essay questions.

ASSESSMENT RUBRIC

Quiz Scoring Rubric:

Quiz consists of 5 essay questions done on a sheet of paper (done 2 times during 1 semester)

Value per item	Criteria
16-20	Can answer the question correctly, the steps of working on the problem are correct, and completely correct.
11-15	The steps of working on the problem are correct, there are few mistakes
6-10	Most of the steps are correct, there are many errors
0-5	The steps of working on the problem are not correct, unable to solve the problem

*Maximum score = 100 (5 questions x 20 points)

Teaching Journal/Proposal/Report/Paper Assessment Rubric:

Assessment Criteria	4 Very good	3 Good	2 Simply	1 Less
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Understanding of Learning Topics with Resumed Journals	Understand the topic exactly once (25)	Understand the topic (20)	Does not fully and appropriately understand the topic (15)	Not understanding the topic (10)
Contents	Drafts show understanding participants integrate information that has been learned and/or assigned to read during lectures properly and appropriately. (25)	Drafts demonstrate an understanding of the material covered and integrate some of the information that has been learned and/or assigned to read during lectures. (20)	Drafts show an understanding of the material covered and only integrate a small portion of the information that has been learned and/or assigned to read during the lecture. (15)	Drafts show a lack of understanding of the material discussed so that it is not clear and does not integrate the material. information that has been learned and/or assigned to read during lectures. (10)
Clarity of Writing	All writing ideas are well and clearly conveyed. (25)	Most of the ideas are well-written and clear. (20)	Some of the ideas are well-written and clear. (15)	The idea of the writing is not conveyed well and clearly. (10)
Language Clarity	Uses foreign/Indonesian language well and correctly few grammatical and word choice errors that do not interfere with understanding. (25)	Uses foreign/Indonesian language well and correctly with few grammatical and word choice errors that interfere with understanding. (20)	Uses foreign/Indonesian language fairly well and correctly with some grammatical and word choice errors. (15)	Does not use foreign/Indonesian language properly and correctly as the writing contains many grammatical and word choice errors. (10)
Total	81-100 (Excellent)	61-80 (Good enough)	41-60 (Enough)	0-40 (Less)

Group Presentation Task Assessment Rubric:

CATEGORIES	4 Very good	3 Good	2 Simply	1 Less
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<p>Group Preparation</p>	<p>The group is fully prepared and has optimized presentation exercises.</p> <p>Mutual complementarity between group members with clear tasks for each group member. (25)</p>	<p>The group seemed reasonably prepared but may need more practice presenting.</p> <p>The responsibilities of each group member need to be identified. (20)</p>	<p>The group made an effort to prepare but did not do any presentation preparation exercises.</p> <p>Tasks and responsibilities are assigned and accepted without careful consideration. (15)</p>	<p>The group seemed to have done no preparation at all for the presentation.</p> <p>Tasks and responsibilities are assigned and accepted randomly. (10)</p>
<p>Presentation Organization</p>	<p>The group presented the content clearly, logically, and systematically, through a cohesive introduction, main points, and conclusion.</p> <p>The group used visual aids that effectively supported and reinforced the presentation. (25)</p>	<p>The group presented the content logically and systematically, with an introduction, main idea and conclusion.</p> <p>The group used visual aids that showed a link to the content of the presentation. (20)</p>	<p>The group presented the content fairly logically and systematically, but it did not contain an introduction, main idea, or conclusion.</p> <p>The group occasionally used visual aids that did not support the content of the presentation. (15)</p>	<p>The group presented the content randomly without any introduction, main idea, or conclusion.</p> <p>Groups using unsupportive visual aids or no visual aids at all. (10)</p>
<p>Task Achievement</p>	<p>Each group member is able to demonstrate solid knowledge through their own exposure and elaboration, and deliver the part of the presentation that is assigned to them within the time allotted. (25)</p>	<p>Each group member demonstrates good knowledge through their own exposure and elaboration but in less time than the time allocated to them. (20)</p>	<p>Each group member demonstrated sufficient knowledge but failed to elaborate, and presented his or her part in only half the time allotted to him or her. (15)</p>	<p>Each group member has no knowledge of the content and presents his/her section in less than half the time allocated to him/her. (10)</p>
<p>Mastery of Presentation Content</p>	<p>Each group member demonstrates full understanding of the presentation topic.</p>	<p>Each group member demonstrated a good understanding of the presentation topic.</p>	<p>Each group member demonstrated a good understanding of some aspect of the topic.</p>	<p>Each group member did not seem to understand the presentation topic very well.</p>

	The main points presented are supported by evidence and critically evaluated. (25)	Most of the main points are illustrated with relevant evidence. (20)	Some illustrations are given, but not critically evaluated. (15)	Some evidence was mentioned, but not integrated in the presentation or evaluated. (10)
Answers to Questions	The group was able to correctly answer almost all the questions asked by the audience about their presentation topic. (25)	The group was able to correctly answer most of the questions asked by the audience about the tropes of their presentation. (20)	The group was able to correctly answer some of the questions the audience asked about their presentation topic. (15)	The group was unable to answer the questions posed by the audience on the topic of their presentation appropriately. (10)
Communication Quality	Group interaction with the audience shows interest and respect for the opinions of others. Responses support effective communication. (25)	Group interaction with an audience shows interest and respect for the opinions of others. Responses generally support effective communication. (20)	Some parts of the interaction in the discussion show interest and respect for others' opinions. (15)	Interaction in the discussion shows disrespect for other people's opinions. Responses do not support effective communication. (10)
Total	81-100 (Excellent)	61-80 (Good enough)	41-60 (Enough)	0-40 (Less)

Source: Halimi, Sicily. "Assessment Rubric: Learning Plan Book MK Introduction to Teaching Methods", 2021

Maximum score: 25 x 6 components = 150 points: 1.5 = 100

Essay Writing Exam Scoring Rubric:

Assessment Criteria	4 Very good	3 Good	2 Simply	1 Less
Understanding of the Question	Understand the question exactly once (25)	Understand the question (20)	Does not understand the question fully and correctly (15)	Did not understand the question (10)

Contents	Answers show understanding participants integrate information that has been learned and/or assigned to read during lectures properly and appropriately. (25)	Answers demonstrate an understanding of the material in question and integrate some of the information learned and/or assigned to read during the lecture. (20)	Answers show a lack of understanding of the material in question and only integrate a small portion of the information that has been studied and/or assigned to read during the lecture. (15)	The answer shows a lack of understanding of the material in question, so it is not clear and does not integrate the material. information that has been learned and/or assigned to read during lectures. (10)
Clarity of Writing	All writing ideas are well and clearly conveyed. (25)	Most of the ideas are well-written and clear. (20)	Some of the ideas are well-written and clear. (15)	The idea of the writing is not conveyed well and clearly. (10)
Language Clarity	Uses foreign/Indonesian language well and correctly few grammatical and word choice errors that do not interfere with understanding. (25)	Uses foreign/Indonesian language well and correctly with few grammatical and word choice errors that interfere with understanding. (20)	Uses foreign/Indonesian language fairly well and correctly with some grammatical and word choice errors. (15)	Does not use foreign/Indonesian language properly and correctly as the writing contains many grammatical and word choice errors. (10)
Total	81-100 (Excellent)	61-80 (Good enough)	41-60 (Enough)	0-40 (Less)

Multiple Choice Exam Scoring Rubric:

Value per item	Criteria
100/many questions	Can answer the question correctly
0	Answers are less precise / not in accordance with the answer key that has been provided

