



**UNIVERSITAS SUMATRA UTARA (USU)  
FACULTY OF AGRICULTURE  
ANIMAL SCIENCE STUDY PROGRAM**

**Document  
Code**

**SEMESTER LEARNING PLAN (RPS)**

COURSE (Course)	CODE	MK Group	WEIGHT (credits)		SEMESTER	Date of Compilation
EXPERIMENTAL DESIGN AND DATA ANALYSIS	PTN 3107	Exact	Theory =2	Practice =1	V(FIVE)	<b>October 23, 2024</b>
<b>AUTHORIZATION / APPROVAL</b>	<b>RPS Developer Lecturer</b>		<b>Vice Dean I</b>		<b>Chairman of LINK-UP USU</b>	
			Dr. Lisnawita, SP, MP		Prof. Dr. Dwi Suryanto M.Sc.	
<b>Learning Outcomes</b>	<b>LO Charged to Course Learning</b>					
	LO01	Able to apply logical, critical, systematic and innovative thinking through the approach and implementation of animal husbandry science and technology by applying the STAR character.				
	LO04	Able to interpret data, apply various methods and experiments and draw conclusions in the field of animal science.				
	LO05	Able to search for and compare literature based on current data and information as a basis for assessment in the field of animal science.s				
	<b>Course Learning Outcomes (CLO)</b>					<b>CLO Weight</b>
	CLO0118: Able to apply deductive and inductive thinking concepts in research					7.69%
	CLO0402: Able to design experimental research by assessing the advantages and disadvantages of a data analysis method/technique.					61.54%
	CLO0503: Able to apply various data analysis techniques in design and skilled in the application of technology/software for experimental data analysis.					30.77%
	<b>Final Ability of Each Learning Stage (Sub-CLO)</b>					
	Sub-CLO1	After taking this course, students will be able to formulate the definition, function, types and importance of research.				

	Sub-CLO2	After taking this course, students will be able to formulate scientific research principles.							
	Sub-CLO3	After taking this course, students will be able to formulate the stages of the research process (Preparation Stage)							
	Sub-CLO4	After taking this course, students will be able to formulate research stages (Implementation Stage)							
	Sub-CLO5	After taking this course, students will be able to formulate experimental designs (complete randomized designs and data transformation).							
	Sub-CLO6	After taking this course, students will be able to formulate multiple comparisons and contrasting comparisons.							
	Sub-CLO7	After taking this lecture, students will be able to formulate randomized block designs.							
	Sub-CLO8	After taking this lecture, students will be able to formulate factorial and divided plots.							
<b>Correlation of CLO with Sub-CLO</b>									
		<b>Sub-CLO 1</b>	<b>Sub-CLO 2</b>	<b>Sub-CLO 3</b>	<b>Sub-CLO 4</b>	<b>Sub-CLO 5</b>	<b>Sub-CLO 6</b>	<b>Sub-CLO 7</b>	<b>Sub-CLO 8</b>
	CLO 0118	√							
	CLO 0402	√	√	√	√	√	√	√	√
	CLO 0503			√			√	√	√
<b>Brief Description of Course</b>	After taking the Experimental Design and Data Analysis course in semester V, the Animal Husbandry Study Program will be able to explain the statistical approach in analyzing research results, both observational and experimental research.								
<b>Study Material:</b>	<b>BK04 Animal Nutrition and Feed Science</b>								
Learning materials	<ol style="list-style-type: none"> <li>1. definition, function, types and importance of research</li> <li>2. principles of scientific research</li> <li>3. research process (Preparation Stage)</li> <li>4. research stages (Implementation Stage)</li> <li>5. experimental design (completely randomized design and data transformation)</li> <li>6. multiple comparison and contrast comparison</li> <li>7. randomized block design</li> <li>8. factorial and split plot</li> </ol>								
<b>Library</b>	<b>Main:</b> 1. Barizi. 1991. Experimental Design. Gramedia: Jakarta								

	2. Yitnosumarto, S. 1993. Experimental Design. PT Gramedia Pustaka Utama: Jakarta						
	<b>Supporters:</b> 1. Journals and publications						
<b>Supporting lecturer</b>							
<b>Required Courses</b>	-						
Week 2-	Final ability of each learning stage (Sub-CLO)	Evaluation		Form of Learning; Learning methods; Student Assignments; [ Estimated Time ]		Study Materials (Learning materials)	Assessment Weight (%)
		Indicator	Criteria and Techniques	Asynchronous (5)	Synchronous (6)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	<b>CLO 1:</b> Students can formulate the definition, function, type and importance of research.	1. Accuracy in formulating research definitions 2. accuracy in formulating research functions 3. accuracy in formulating the type of research 4. accuracy in formulating the importance of the research	<b>Criteria:</b> - <b>Technique:</b> Non-Test	<b>Asynchronous (5)</b> KM+PT (1 week x 2 credits x 120 minutes)  <b>Activity:</b> 1. Attendance absence 2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.  <b>Learning methods:</b> <i>Self-Paced Learning</i>  <b>Mode (Learning Management System):</b> <a href="mailto:elarning@usu.ac.id">elarning@usu.ac.id</a>	<b>Synchronous (6)</b> TM (1 week x 2 credits x 50 minutes)  <b>Activity:</b> 1. <i>Offline Learning</i> 2. <i>Class Discussion</i> 3. <i>Note Taking</i>  <b>Media:</b> 1. <i>Power Point Presentation</i> 2. <i>Text Book</i>  <b>Learning methods:</b> 1. <i>Lecturer</i> 2. <i>Discussion</i> 3. <i>Self-Paced</i>	<b>Subject:</b> 1. Study Contract 2. Definition of research 3. Research function 4. Types of research 5. The importance of research	5%

2-3	<p><b>Sub-CLO 2:</b></p> <p>Students can formulate scientific research principles</p>	<ol style="list-style-type: none"> <li>1. Accuracy in formulating scientific attitude orientation</li> <li>2. Accuracy in formulating scientific thinking patterns</li> <li>3. Accuracy in formulating the essence of research</li> <li>4. Accuracy in formulating design principles and reports</li> </ol>	<p><b>Criteria:</b> Assessment rubric.</p> <p><b>Technique:</b> <i>Non-Test</i></p>	<p>KM+PT (1 week x 2 credits x 120 minutes)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. Attendance absence</li> <li>2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.</li> <li>3. Responding to the opening question</li> </ol> <p><b>Case Method 1:</b></p> <ol style="list-style-type: none"> <li>1. Divide the groups evenly (the lecturer divides)</li> <li>2. Create a scientific research paper with a maximum of 15 pages from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format.</li> <li>3. Group presentation</li> </ol> <p><b>Mode (Learning Management System):</b> <a href="mailto:elarning@usu.ac.id">elarning@usu.ac.id</a></p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. <i>Offline Learning</i></li> <li>2. <i>Class Discussion</i></li> <li>3. <i>Note Taking</i></li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>1. <i>Power Point Presentation</i></li> <li>2. <i>Text Book</i></li> </ol> <p><b>Learning methods:</b></p> <ol style="list-style-type: none"> <li>1. <i>Lecturer</i></li> <li>2. <i>Discussion</i></li> <li>3. <i>Self-Paced</i></li> </ol>	<p><b>Subject:</b></p> <ol style="list-style-type: none"> <li>1. Scientific attitude orientation</li> <li>2. Scientific thinking patterns</li> <li>3. The essence of research</li> <li>4. Design and reporting principles</li> </ol>	Case Method 1: 10%
4-5	<p><b>Sub-CLO 3:</b></p> <p>After taking this course, students will be able to</p>	<ol style="list-style-type: none"> <li>1. Accuracy in explaining identification, selection</li> </ol>	<p><b>Criteria:</b> Assessment rubric.</p> <p><b>Technique:</b></p>	<p>KM+PT (1 week x 2 credits x 120 minutes)</p> <p><b>Activity:</b></p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Activity:</b></p>	<p><b>Subject:</b></p> <ol style="list-style-type: none"> <li>1. Identification of selection and</li> </ol>	Case Method 2: 10%

	<p>formulate the stages of the research process (Preparation Stage)</p>	<p>and formulation of problems</p> <ol style="list-style-type: none"> <li>2. Accuracy in formulating literature reviews</li> <li>3. Accuracy in formulating problem identification</li> <li>4. Accuracy in formulating classifications and providing operational definitions</li> <li>5. Accuracy in determining research variables</li> </ol>	<p><i>Test:</i></p> <p>1. <i>Case method</i></p>	<ol style="list-style-type: none"> <li>1. Attendance absence</li> <li>2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.</li> <li>3. Responding to the opening question</li> </ol> <p><b>Case Method 2:</b></p> <ol style="list-style-type: none"> <li>4. Divide the groups evenly (the lecturer divides)</li> <li>5. Creating a research preparation stage paper with a maximum of 15 pages from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format.</li> <li>6. Group presentation</li> </ol> <p><b>Mode (Learning Management System):</b> <a href="mailto:elearning@usu.ac.id">elearning@usu.ac.id</a></p>	<ol style="list-style-type: none"> <li>1. <i>Offline Learning</i></li> <li>2. <i>Class Discussion</i></li> <li>3. <i>Note Taking</i></li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>1. <i>Power Point Presentation</i></li> <li>2. <i>Text Book</i></li> </ol> <p><b>Learning methods:</b></p> <ol style="list-style-type: none"> <li>1. <i>Lecturer</i></li> <li>2. <i>Discussion</i></li> <li>3. <i>Self-Paced</i></li> </ol>	<p>formulation of the problem</p> <ol style="list-style-type: none"> <li>2. Literature review</li> <li>3. Identification, classification and operational definition giving</li> <li>4. Research variables</li> </ol>	
6-7	<p><b>Sub-CLO 4:</b></p> <p>After taking this course, students will be able to</p>	<ol style="list-style-type: none"> <li>1. Accuracy in explaining data selection and retrieval</li> </ol>	<p><b>Criteria:</b> Assessment rubric.</p> <p><b>Technique:</b></p> <p><i>Test:</i></p>	<p>KM+PT (1 week x 2 credits x 120 minutes)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. Attendance absence</li> </ol>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. <i>Offline Learning</i></li> <li>2. <i>Class Discussion</i></li> </ol>	<p><b>Subject:</b></p> <ol style="list-style-type: none"> <li>1. Tool selection/development data grabber</li> </ol>	<p>Quiz 1: 5%</p>

	formulate the stages of implementing research.	<ol style="list-style-type: none"> <li>2. Accuracy in explaining research design</li> <li>3. Accuracy in explaining Sampling Determination</li> <li>4. Accuracy in explaining data collection</li> <li>5. Accuracy in data processing and analysis</li> <li>6. Accuracy in interpretation of analysis results</li> <li>7. Accuracy in report preparation</li> </ol>	<p><i>1. Quiz</i></p>	<ol style="list-style-type: none"> <li>2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.</li> <li>3. Responding to the opening question</li> </ol> <p><b>Quiz 1:</b> <i>Quiz to measure students' understanding of protein as a nutrient needed by poultry</i></p> <p><b>Mode (Learning Management System):</b> <a href="mailto:elearning@usu.ac.id">elearning@usu.ac.id</a></p>	<ol style="list-style-type: none"> <li>3. <i>Note Taking</i></li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>1. <i>Power Point Presentation</i></li> <li>2. <i>Text Book</i></li> </ol> <p><b>Learning methods:</b></p> <ol style="list-style-type: none"> <li>1. <i>Lecturer</i></li> <li>2. <i>Discussion</i></li> <li>3. <i>Self-Paced</i></li> </ol>	<ol style="list-style-type: none"> <li>2. Drafting the design study</li> <li>3. Sample determination</li> <li>4. Data collection</li> <li>5. Data processing and analysis</li> <li>6. Interpretation of analysis results</li> <li>7. Preparation of reports</li> </ol>	
8	MID SEMESTER EXAMINATION						15%
9-10	<p><b>Sub-CLO 6:</b></p> <p>After taking this course, students will be able to formulate experimental designs (complete randomized designs and data transformation).</p>	<ol style="list-style-type: none"> <li>1. Accuracy in explaining the definition of basic design and treatment design</li> <li>2. Accuracy in explaining randomization and RAL layout</li> <li>3. Accuracy in explaining the linear model and ANOVA RAL</li> </ol>	<p><b>Criteria:</b> Assessment rubric.</p> <p><b>Technique:</b> <i>Test:</i></p> <ol style="list-style-type: none"> <li>1. <i>Case method</i></li> </ol>	<p>KM+PT (1 week x 2 credits x 120 minutes)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. Attendance absence</li> <li>2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.</li> <li>3. Responding to the opening question</li> </ol>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Activity:</b></p> <ol style="list-style-type: none"> <li>1. <i>Offline Learning</i></li> <li>2. <i>Class Discussion</i></li> <li>3. <i>Note Taking</i></li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>1. <i>Power Point Presentation</i></li> <li>2. <i>Text Book</i></li> </ol> <p><b>Learning methods:</b></p>	<p><b>Subject:</b></p> <ol style="list-style-type: none"> <li>1. Classification of microbial interactions</li> <li>2. Types of microbial interactions</li> <li>3. The role of microbial interactions</li> <li>4. Microbial interaction factors</li> </ol>	<p>Case Method 3: 10%</p>

		<p>4. Accuracy in explaining the basic assumptions of ANOVA</p> <p>5. Accuracy in data transformation</p>		<p><b>Case Method 3:</b></p> <p>1. Divide the groups evenly (the lecturer divides)</p> <p>2. Create a 15-page data transformation paper from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format.</p> <p><b>Mode (Learning Management System):</b> elearning@usu.ac.id</p>	<p>1. Lecturer</p> <p>2. Discussion</p> <p>3. Self-Paced</p>		
11-12	<p><b>Sub-CLO 7:</b></p> <p>After taking this course, students will be able to formulate multiple comparisons and contrasts.</p>	<p>1. Accuracy in explaining the smallest real difference (LSD)</p> <p>2. Accuracy in explaining the turkey test</p> <p>3. the accuracy of formulating the Duncan multiple area test</p> <p>4. accuracy of formulating qualitative treatment contracts</p>	<p><b>Criteria:</b> Assessment rubric.</p> <p><b>Technique:</b> <i>Test:</i> 1. Case method</p>	<p>KM+PT (1 week x 2 credits x 120 minutes)</p> <p><b>Activity:</b></p> <p>4. Attendance absence</p> <p>5. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.</p> <p>6. Responding to the opening question</p> <p><b>Case Method 4:</b> 3. Divide the groups evenly (the lecturer divides)</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Activity:</b></p> <p>4. Offline Learning</p> <p>5. Class Discussion</p> <p>6. Note Taking</p> <p><b>Media:</b></p> <p>3. Power Point Presentation</p> <p>4. Text Book</p> <p><b>Learning methods:</b></p> <p>4. Lecturer</p> <p>5. Discussion</p> <p>Self-Paced</p>	<p><b>Subject:</b></p> <p>1. Least significant difference (LSD)</p> <p>2. Turkey Test (HSD)</p> <p>3. Duncan's multiple range test</p> <p>4. Contrast of qualitative treatment</p> <p>5. Contrast quantitative treatment</p>	<p>Case Method 4: 10%</p>

		5. Accuracy in formulating quantitative treatment contrasts		4. Create a paper for each group on data contrast, 15 pages from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format.  <b>Mode (Learning Management System):</b> <a href="mailto:elearning@usu.ac.id">elearning@usu.ac.id</a>			
13-14	<b>Sub-CLO 8:</b>  After taking this lecture, students will be able to formulate a randomized block design (RBSL).	1. Accuracy in explaining checking and design plan 2. Accuracy in explaining linear models 3. Accuracy in relating RAK ANOVA 4. Accuracy in the Mean Difference Test 5. Accuracy in linking the use of RBSL	<b>Criteria:</b> Assessment rubric.  <b>Technique:</b> <i>Non-Test:</i>	KM+PT (1 week x 2 credits x 120 minutes)  <b>Activity:</b> 1. Attendance absence 2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials. 3. Responding to the opening question <b>Mode (Learning Management System):</b> <a href="mailto:elearning@usu.ac.id">elearning@usu.ac.id</a>	TM (1 week x 2 credits x 50 minutes)  <b>Activity:</b> 1. <i>Offline Learning</i> 2. <i>Class Discussion</i> 3. <i>Note Taking</i>  <b>Media:</b> 1. <i>Power Point Presentation</i> 2. <i>Text Book</i>  <b>Learning methods:</b> 1. <i>Lecturer</i> 2. <i>Discussion</i> 3. <i>Self-Paced</i>	<b>Subject:</b> 1. Randomization and layout design 2. Linear model and RAK ANOVA 3. Test for differences in mean values 4. Introduction to RBSL	10%
13-15	<b>Sub-CLO 9:</b>  After taking this lecture, students will be able to	1. Accuracy in explaining randomization and design layout	<b>Criteria:</b> Assessment rubric.  <b>Technique:</b>	KM+PT (1 week x 2 credits x 120 minutes)  <b>Activity:</b>	TM (1 week x 2 credits x 50 minutes)  <b>Activity:</b>	<b>Subject:</b> 1. Randomization and layout design	Case Method 5: 10%

	<p>formulate factorial experiments.</p>	<ol style="list-style-type: none"> <li>2. Accuracy in explaining the linear model</li> <li>3. Accuracy in explaining ANOVA</li> <li>4. Accuracy in explaining the mean difference test</li> <li>5. accuracy in RAL Factorial</li> <li>6. Accuracy in Factorial RAK</li> </ol>	<p><i>Test:</i></p> <ol style="list-style-type: none"> <li>1. <i>Case method</i></li> </ol>	<ol style="list-style-type: none"> <li>1. Attendance absence</li> <li>2. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials.</li> <li>3. Responding to the opening question</li> </ol> <p><b>Case Method 5:</b></p> <ol style="list-style-type: none"> <li>1. Divide the groups evenly (the lecturer divides)</li> <li>2. Create a 15-page factorial RAL and factorial RAK paper from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format.</li> </ol> <p><b>Mode (Learning Management System):</b> elearning@usu.ac.id</p>	<ol style="list-style-type: none"> <li>1. <i>Offline Learning</i></li> <li>2. <i>Class Discussion</i></li> <li>3. <i>Note Taking</i></li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>1. <i>Power Point Presentation</i></li> <li>2. <i>Text Book</i></li> </ol> <p><b>Learning methods:</b></p> <ol style="list-style-type: none"> <li>1. <i>Lecturer</i></li> <li>2. <i>Discussion</i></li> <li>3. <i>Self-Paced</i></li> </ol>	<ol style="list-style-type: none"> <li>2. Linear models and ANOVA</li> <li>3. Test for differences in mean values</li> </ol>	
16	FINAL SEMESTER EXAMINATION						15%

**Assessment Design:**

CLO Code and Percentage	Sub-CLO Code	Evaluation Form	Percentage (%)	Total	Implementation of Evaluation
<b>CLO0314 (7,69%)</b>	Sub-CLO1	Mid Therm Exam	7,69	7,69%	Week 8
<b>CLO0905 (61,54%)</b>	Sub-CLO1	Mid Therm Exam	5.5	61,54%	Week 8
	Sub-CLO2	Mid Therm Exam	5.5		Week 8
	Sub-CLO3	Case Method	5		Week 3
	Sub-CLO4	Quis	5		Week 4
	Sub-CLO5	Case Method	5		Week 6
	Sub-CLO6	Case Method	5		Week 9
	Sub-CLO7	Final Exam	6		Week 10
	Sub-CLO8	Case Method	5		Week 12
<b>CLO1113 (30,77%)</b>	Sub-CLO3	Case method	5	30,77%	Week 3
	Sub-CLO6	Case method	5		Week 9
	Sub-CLO7	Final Exam	5		Week 10
<b>Total</b>			<b>100%</b>	<b>100%</b>	

**Assessment Plan:**



Evaluation Form	Sub-CLO	Assessment Instrument [Frequency]		Invoice (proof)	Assessment Credit (%)
		Formative	Summative		
Quiz/Q&A	Sub-CLO3 and Sub-CLO8	Assessment rubric [2 times]	-	Quiz answers uploaded to kelas.usu.ac.id	10
Case Methode	Sub-CLO4 and Sub-CLO9	Feedback results case analysis [5 times]	Assessment rubric [2 times]	Logbook/worksheet/slides uploaded to kelas.usu.ac.id	50
Written exam 1 (UTS)	Sub-CLO1, Sub-CLO2, Sub-CLO3, Sub-CLO4, Sub-CLO5, Sub-CLO6 and Sub-CLO7	-	Assessment rubric [1 time]	Written exam result sheet	20
Written exam 2 (UAS)	Sub-CLO8, Sub-CLO9, Sub-CLO10, Sub-CLO11, Sub-CLO12, Sub-CLO13 and Sub-CLO14	-	Assessment rubric [1 time]	Written exam result sheet	20
<b>Total</b>					<b>100%</b>

**Explanation:**

a) Quiz 10%

During the semester there will be 2 quizzes held in class. The quizzes will be conducted via e-learning and have been scheduled in advance. The material being tested is announced by the lecturer and written in the RPS.

- b) *Case Method* 50%  
During the semester there will be a case method, each student will make a paper and report from each case method in groups. The case method in this course is done 5 times. The paper that has 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 are presenting.
- c) Midterm Exam 20%  
The midterm exam covers all the materials that have been discussed since the beginning of the semester until the 7th meeting, both reading and lecture. This exam is conducted in class with multiple choice questions, short answers, and essays.
- d) Final Exam 20%  
The final semester exam covers all the material that has been discussed since the 9th to 15th meeting, both reading and lecture. This exam is conducted in class in the form of multiple choice questions, short answers, and essays.

**ASSESSMENT RUBRIC**

**Post Test Quiz Assessment Rubric (10%)**

The Pre/Post test questions consist of 5 essay questions done on one sheet of paper (done 4 times during 1 semester)

Value per question item	Criteria
20	Can answer questions correctly, complete the steps correctly, and completely correct
15	The steps for completing the questions are correct, there are a few errors.
10	Most of the steps in completing the questions are correct, there are many errors.
5	The steps for completing the question are not correct, the question cannot be completed

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

**Minimum score = 25 (5 questions x 5 points)**

Quiz score 1: (maximum score is 100) $20 \times \sum \text{nilai per butir soal}$

Quiz score 2: (maximum score is 100) $20 \times \sum \text{nilai per butir soal}$

**Total score if you take all post-test quizzes with a perfect score is  $200 \times 10\%[\text{quiz percentage}] = 20$**



### Assessment Rubric for Group Presentation Assignment Case Method Knowledge of Livestock Products

Matter	Evaluation criteria				
	Contents	Complete, with additional good material (20)	Complete (18)	Same as text book (16)	Not complete, but most of the material is covered (14)
Answering Discussion Questions	Able to answer all questions correctly (20)	Can answer most of the questions correctly but there are some questions that are not answered (18)	Able to answer some questions correctly, some others did not reach the target and there were questions that were not answered (16)	Most of the answers did not reach the target and there were unanswered questions (14)	Can't answer all questions (12)
Presentation	Clear, concise with good flow (20)	Clear, concise with sometimes poor flow (18)	Moderate presentation skills (16)	Presentation stutters (14)	Presentation not working (12)
Group organization	Very good organization, supporting each other's presentations (20)	Good organization (18)	Medium organization, some people are less organized (16)	Lack of organization often results in communication errors (14)	The organization was chaotic so the presentation was very disrupted (12)
Creativity	Very creative without going off target (20)	Creative creates enthusiasm (18)	Occasionally attracts attention (15)	Occasionally attracts attention (13)	Boring, makes you sleepy (11)
<b>TOTAL</b>	<b>100</b> <b>(Very Good)</b>	<b>90-80</b> <b>(Very well)</b>	<b>79-70</b> <b>(Good)</b>	<b>69-50</b> <b>(Pretty good)</b>	<b>59-40</b> <b>(Not good)</b>

#### Information :

The total maximum score is 100. The numbers in brackets are the scores for each criterion. The number 100 will later be accumulated with the percentage of the Presentation Assignment (PjBL) value of 50%.

$$100 \times 50\% = 50 \text{ points}$$

There are 4 presentation implementations (case method), so the percentage of the Case Method Group Assignment score for each implementation is:  $50\% : 4 = 12.5\%$ . Points for each implementation of the Case Method Group Assignment:  $100 \times 12.5\% = 12.5 \text{ points}$ .

**Essay Exam Assessment Rubric:**

<b>Assessment criteria</b>	<b>4 Very good</b>	<b>3 Good</b>	<b>2 Enough</b>	<b>1 Not enough</b>
<b>Understanding the Questions</b>	Understand the question exactly once (25)	Understanding the questions (20)	Not understanding the question fully and correctly (15)	Don't understand the question (10)
<b>Contents</b>	Answers show understanding in-depth understanding of the material being asked and participants integrate the information that has been studied and/or assigned to be read during the lecture well and appropriately (25)	The answers demonstrate understanding of the material being asked and integrate some of the information that has been studied and/or assigned to be read during the lecture. (20)	The answer shows a lack of understanding of the material being asked and only integrates a small portion of information that has been studied and/or assigned to be read during lectures. (15)	The answer shows a lack of understanding of the material being asked so it is unclear and not integrated. information that has been studied and/or assigned to be read during lectures. (10)
<b>Clarity of Writing</b>	All written ideas are conveyed well and clearly. (25)	Most of the ideas in the writing are well and clearly conveyed. (20)	Some of the ideas in the writing are conveyed well and clearly. (15)	The ideas in the writing are not conveyed well and clearly. (10)
<b>Clarity of Language</b>	Uses foreign/Indonesian languages well and correctly with minimal grammatical errors and word choices that do not	Uses foreign/Indonesian languages well and correctly with minimal grammatical errors and word choices that interfere with understanding.	Uses foreign/Indonesian language quite well and correctly with some grammatical errors and word choices	Does not use foreign/Indonesian language properly and correctly because the writing contains many

	interfere with understanding (25)	(20)	(15)	grammatical errors and word choices (10)
<b>Total</b>	<b>81-100</b> <b>(Very well)</b>	<b>61-80</b> <b>(Pretty good)</b>	<b>41-60</b> <b>(Enough)</b>	<b>0-40</b> <b>(Not enough)</b>

**Multiple Choice Exam Scoring Rubric:**

<b>Value per question item</b>	<b>Criteria</b>
100/ many questions	Can answer questions correctly
0	The answer is not quite right/does not match the answer key provided.