



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

**Docum  
Code**  
(to follo

**SEMESTER LEARNING PLAN (RPS)**

COURSE (MK)	CODE	MK family	WEIGHT (SKS)		SEMESTER	Date of Preparation
Dairy Industry Management	PTN4103	Exact	Theory = 2	Practicum = 1	VII (Seven)	13 August 2
<b>AUTHORISATION/ATTES TATION</b>	<b>RPS Developer Lecturer</b>		<b>Approved Head of Study Programme</b>		<b>Chairman of LINK-UP US</b>	
	Dr Usman Budi, S.Pt., M.Si.		Dr. Ir. Ma'ruf Tafsin, M.Si., IPM.		Prof. Dr Dwi Suryanto M.S	
<b>Learning Outcomes</b>	<b>LO-Study Programme Charged to Course</b>					
	LO02	Able to apply the concepts of leadership and teamwork, communication, self-motivation and innovation in complex work in the field of animal husbandry.				
	LO03	Able to identify, formulate, and find solutions to problems related to animal husbandry.				
	LO06	Supervise and evaluate the completion of assigned work and be able to manage learning independently throughout the course.				
	LO08	Able to manage integrated and sustainable livestock cultivation based on integration with other agroecosystems and apply the latest applications in processing livestock products and waste.				
	LO09	Able to manage and implement aspects of efficient feed supply and technology.				
	LO10	Able to plan, evaluate and manage livestock businesses with agribusiness principles.				
	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.				

LO12	Have coherent and up-to-date knowledge in the field of animal science and in accordance with applicable regulations and can apply animal welfare aspects.	
<b>Course Learning Outcomes (CLO)</b>		<b>CLO Weight</b>
CLO0216: Able to explain the latest innovations related to technology applications in dairy cattle industry management.		12.5%
CLO0341: Able to explain <i>layout</i> , input and output processes, and processing in dairy cattle industry management.		12.5%
CLO0635: Able to explain the evaluation related to the application of technology to the productivity of dairy cattle.		12.5%
CLO0823: Able to apply technology in dairy cattle industry management based on integrated agricultural integration.		12.5%
CLO0916: Able to apply the best technology in dairy animal feed processing.		12.5%
CLO1014: Able to make a business design plan related to the dairy cattle industry.		12.5%
CLO1136: Able to analyse various best techniques and methods in process technology in the dairy cattle industry.		12.5%
CLO1224: Able to explain the regulations that support the use of technology in the dairy cattle industry.		12.5%
<b>End Capability of Each Learning Stage (Sub-CLO)</b>		
Sub-CLO 1	After attending this lecture, students will be able to explain the forms of dairy cattle business (commercial, semi-commercial and traditional) and the factors that influence the establishment of the dairy cattle industry.	
Sub-CLO 2	After attending this lecture, students will be able to explain the application and role of dairy reproductive technology (IB, estrus synchronisation, embryo transfer).	
Sub-CLO 3	After attending this lecture, students will be able to explain the types of cages, facilities and infrastructure <i>layout</i> in building a dairy farming industry.	



	CLO1014	√		√			√	√		√	
	CLO1136		√		√	√	√		√		√
	CLO1224		√	√		√		√	√	√	
<b>Brief Course Description</b>	After completing the Dairy Cattle Industry Management course, students in semester VII, Department of Animal Husbandry, Faculty of Agriculture, University of North Sumatra are expected to be able to explain the management of dairy cattle rearing from upstream to downstream with the use of technology. This course is conducted with the language of instruction, namely Indonesian with face-to-face meetings consisting of material exposure, discussions, presentations, online / offline practicum, quizzes and assignments.										
<b>Study Material:</b>	<b>BK03 Animal Production Science</b>										
<b>Learning Materials</b>	<b>BK07 Application and Development of Animal Science and Technology</b>										
	<ol style="list-style-type: none"> <li>1. Forms of dairy cattle enterprises (commercial, semi-commercial and traditional) and factors influencing the establishment of dairy cattle industry</li> <li>2. Application and role of dairy reproductive technology (IB, estrus synchronisation, embryo transfer)</li> <li>3. Types of cages, facilities and infrastructure <i>layout</i> in building a dairy farming industry</li> <li>4. Application and role of dairy feed processing technology (physical/chemical/biological/combination)</li> <li>5. Evaluation of milk production and reproduction performance in the dairy farming industry</li> <li>6. Definition and steps of dairy farm business planning (SWOT analysis)</li> <li>7. Dairy business development</li> <li>8. The concept of <i>Dairy Integrated Farming System</i> in realising Indonesia's SDGs 2030</li> <li>9. Development of modern technology-based animal husbandry</li> <li>10. Government policies that influence the role of technology use in dairy farming</li> </ol>										
<b>References</b>	<b>Main</b>										
	<ol style="list-style-type: none"> <li>1. Astaty. 2013. <i>Dairy Livestock Management</i>. Alauddin University Press</li> </ol>										

	<ol style="list-style-type: none"> <li>2. Christi, R. F., Salman, L. B. and Alfikri, SI. 2023. <i>Evaluation of Milk Production and Reproduction Performance of Friesian Holstein Dairy Cows at BPT HMT Cikole Lembang</i>. Journal of Animal Resources. 4(1) : 1-7</li> <li>3. FAO, 2012. <i>The State Agriculture and Of Food</i>. Food and Agriculture Organisation of the United Nations, Rome.</li> <li>4. FAO-Food and Agriculture Organisation, 2011. <i>Guide to good dairy farming practice, Animal Production and Health Guidelines</i></li> <li>5. Food and Agriculture Organisation, 2011. <i>Guide to good dairy farming practice, Animal Production and Health Guidelines</i></li> <li>6. House, J., 2011. <i>A guide to dairy herd management</i>. The University of Sydney, New South Wales, Australia.</li> <li>7. Moran, J. and P.C., 2017. <i>Blueprints for Tropical Dairy Farming: Increasing Domestic Milk Production in Developing Countries</i>. CSIRO Publishing, Australia</li> <li>8. Salvia, Ramaiyulis, Dewi, M. And Sari, D. K. 2022. <i>Feed Processing Technology</i>: Payakumbuh State Agricultural Polytechnic</li> <li>9. SNV. 2017. <i>Dairy Farm Management</i>. SNV Ethiopia, Ethiopia</li> <li>10. Subhan, A., Nurawaliah, S. and Syarif, M. 2022. <i>Cattle Business Development Technology Innovation</i>: South Kalimantan Agricultural Technology Assessment Centre (BPTP).</li> <li>11. Syukriani, D., Irda, I. And Kurnia, D. 2022. <i>Dairy Animal Science</i>: Payakumbuh State Agricultural Polytechnic</li> <li>12. Wolayan, F. R., Bagau, B. and Imbar, M. R. 2023. <i>Animal Husbandry Industry (Technology in Feed Industry)</i>: Patra Media Grafindo Bandung</li> </ol>					
	<b>Supporters</b> <ol style="list-style-type: none"> <li>1. Practicum Handbook</li> <li>2. Scientific Articles</li> <li>3. International and national journals</li> </ol>					
<b>Lecturer</b>	Dr Usman Budi, S.Pt., M.Si. Winda Fransisca Saragih, M.Pt. Uswatun Hasanah, S.Pt., M.Si.					
<b>Conditional Subjects</b>	-					
Meeting	End ability of each learning stage (Sub-CLO)	Assessment	Forms of Learning; Learning Methods; Student Assignment; [ Estimated Time ]	Study Material (Learning Materials)	Assessment	
					SLO Indicator/Code	Assessment Weight (%)

		<b>Indicators</b>	<b>Criteria and Techniques</b>					
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>Asynchronous (5)</b>	<b>Synchronous (6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)</b>
1	Sub-CLO 1: After attending this lecture, students will be able to explain the forms of dairy cattle business (commercial, semi-commercial and traditional) and the factors that influence the establishment of the dairy cattle industry.	a. Accuracy in explaining the forms of dairy cattle business b. Accuracy in explaining the factors that influence the establishment of the dairy cattle industry	<b>Criteria:</b> Using an assessment rubric  <b>Techniques:</b> <i>Non-test</i>	<b>KM+PT</b> (1 week x 3 credits x 120 minutes)  <b>Learning Methods:</b> <i>Self-Paced Learning</i>  <b>Activities:</b> a. Attendance b. Introduction c. Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course Agreement, and Learning Materials  <b>Moda (Learning Management System):</b> <a href="http://class.usu.ac.id">class.usu.ac.id</a>	<b>TM</b> (1 week x 2 credits x 50 minutes)  <b>Learning Methods:</b> <i>a. Lecture b. Discussion</i>  <b>Activities:</b> <i>a. Online/offline learning b. Class discussion c. Take notes on learning materials</i>  <b>Media:</b> a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	<b>Subject matter:</b> a. Forms of dairy farming: - Commercial - Semi-commercial - Traditional b. Factors influencing the establishment of the dairy cattle industry	C3 (applying) C4 (analyse) C5 (evaluate) C6 (create)	Task 2.5 (CLO & CLO1)

2	<p>Sub-CLO 2:</p> <p>After attending this lecture, students will be able to explain the application and role of dairy reproductive technology (IB, estrus synchronisation, embryo transfer).</p>	<p>a. Accuracy in explaining the application and role of dairy reproductive technology</p>	<p><b>Criteria:</b> Using an assessment rubric</p> <p><b>Techniques:</b> <i>Non-test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p> <p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>Attendance</li> <li>Review the week-1 meeting material</li> <li>Introduction</li> </ol> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <ol style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> </ol> <p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>Online/offline learning</li> <li>Class discussion</li> <li>Take notes on learning materials</li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>Slides/ ppt</li> <li>Zoom meeting/ LCD</li> <li>Text book</li> </ol>	<p><b>Subject matter:</b></p> <ol style="list-style-type: none"> <li>Application and role of dairy reproductive technology <ul style="list-style-type: none"> <li>- IB</li> <li>- Estrus synchronisation</li> <li>- Embryo transfer (TE)</li> </ul> </li> </ol>	<p>C3 (applying) C4 (analyse) C5 (evaluate)</p>	<p>This sub-CLO will be assessed during UTS with weight 10% percent of UTS assessment weight (20%) CLO1 CLO2 CLO3 CLO4 ) Quiz 1 (1%) CLO5</p>
3	<p>Sub-CLO 3:</p> <p>After attending this lecture, students will be able to explain the types of cages, facilities and infrastructure layout</p>	<ol style="list-style-type: none"> <li>Accuracy in explaining the types of cages</li> <li>Accuracy in explaining the facilities and infrastructure layout in</li> </ol>	<p><b>Criteria:</b> Assessment Rubric</p> <p><b>Techniques:</b> <i>Test Quiz</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <ol style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> </ol>	<p><b>Subject matter:</b></p> <ol style="list-style-type: none"> <li>Types of dairy cattle drums</li> <li>Facilities and infrastructure</li> </ol>	<p>C4 (analyse) C5 (evaluate)</p>	<p>This sub-CLO will be assessed during UTS with weight 10% percent of UTS</p>

	in building a dairy farming industry.	building a dairy farming industry		<p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>Attendance</li> <li>Review the material for the week-2 meeting</li> <li>Introduction</li> <li>Quiz</li> </ol> <p><b>Quiz 1:</b> Quizzes to measure student understanding of week 1-3 meetings</p> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>Online/offline learning</li> <li>Class discussion</li> <li>Take notes on learning materials</li> </ol> <p><b>Media:</b></p> <ol style="list-style-type: none"> <li>Slides/ ppt</li> <li>Zoom meeting/ LCD</li> <li>Text book</li> </ol>	e layout in building a dairy farming industry
4 & 5	<p>Sub-CLO 4:</p> <p>After attending this lecture, students will be able to explain the application and role of dairy feed processing technology (physical/chemical/b</p>	a. Accuracy in explaining the application and role of dairy feed processing technology (physical/chemical/biological/c combination)	<p><b>Criteria:</b> Assessment Rubric</p> <p><b>Techniques:</b> Test: Assignment</p>	<p>KM+PT (2 weeks x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> Self-Paced Learning</p> <p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>Attendance</li> </ol>	<p>TM (2 weeks x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <ol style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> </ol> <p><b>Activities:</b></p>	<p><b>Subject matter:</b></p> <ol style="list-style-type: none"> <li>Application and role of dairy feed processing technology <ul style="list-style-type: none"> <li>- Physical</li> <li>- Chemistry</li> <li>- Biological</li> </ul> </li> </ol>

C3 (applying)  
C4 (analyse)  
C5 (evaluate)

assessment weight (20%) (CLO1) (CLO2) (CLO3) (CLO4) (CLO5)

Quiz 1.5

Case method 10

	iological/combinatio n).			<p>b. Review the material for the week 3 meeting</p> <p>c. Introduction</p> <p>d. Tasks</p> <p><b>Task 1:</b></p> <p>a. Divide the group evenly (lecturer divides)</p> <p>b. Make a paper with TNR font size 12 space 1.5 sent in pdf form</p> <p>c. Group presentation</p> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p>a. <i>Online/offline learning</i></p> <p>b. <i>Class discussion</i></p> <p>c. Take notes on learning materials</p> <p><b>Media:</b></p> <p>a. Slides/ ppt</p> <p>b. Zoom meeting/ LCD</p> <p>Text book</p>	- Combinat ion	
6 & 7	<p>Sub-CLO 5:</p> <p>After attending this lecture, students will be able to explain the evaluation of milk production and reproduction</p>	a. Accuracy in explaining the evaluation of milk production performance with the utilisation of feed technology	<p><b>Criteria:</b> Using an assessment rubric</p> <p><b>Technique:</b> <i>Non-test</i></p>	<p>KM+PT (2 weeks x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p>	<p>TM (2 weeks x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <p>a. <i>Lecture</i></p> <p>b. <i>Discussion</i></p>	<p><b>Subject matter:</b></p> <p>a. Evaluation of milk production performance with the utilisation of</p>	<p>C4 (analyse)</p> <p>C5 (evaluate)</p>

	performance in the dairy farming industry.	b. Accuracy in explaining the evaluation of milk production with the utilisation of reproductive technology in the dairy farming industry.		<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>a. Attendance</li> <li>b. Review meeting materials for weeks 4 and 5</li> <li>c. Introduction</li> </ul> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>a. Online/offline learning</li> <li>b. Class discussion</li> <li>c. Take notes on learning materials</li> <li>d. Presentation</li> </ul> <p><b>Media:</b></p> <ul style="list-style-type: none"> <li>a. Slides/ ppt</li> <li>b. Zoom meeting/ LCD</li> <li>c. Text book</li> </ul>	<p>feed technology</p> <p><b>b.</b> Evaluation of milk production with the utilisation of reproductive technologies in the <b>dairy</b> farming industry</p>		
<b>8</b>	<b>MIDTERM EXAM (UTS)</b>							<b>20</b>
9	<p>Sub-CLO 6:</p> <p>After attending this lecture, students will be able to explain the meaning and steps of dairy farm business planning (SWOT analysis).</p>	<p>a. Accuracy in explaining the meaning and steps of dairy farm business planning (SWOT analysis)</p>	<p><b>Criteria:</b> Using an assessment rubric</p> <p><b>Techniques:</b> Non-test</p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p> <p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>a. Attendance</li> <li>b. Reviewing the meeting</li> </ul>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <ul style="list-style-type: none"> <li>a. Lecture</li> <li>b. Discussion</li> </ul> <p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>a. Online/offline learning</li> </ul>	<p><b>Subject matter:</b></p> <ul style="list-style-type: none"> <li>a. Definition of dairy farm business planning</li> <li>b. Dairy farm business planning steps (SWOT analysis)</li> </ul>	<p>C3 (applying) C4 (analyse) C5 (evaluate) C6 (create)</p>	<p>This CLO will be assessed during UAS with a weight of 6.67% (20%)</p>

				<p>material before UTS and UTS evaluation</p> <p>c. Introduction</p> <p>d. Quiz</p> <p><b>Quiz 2:</b> Quiz to measure students' understanding after midterm evaluation</p> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p>b. <i>Class discussion</i></p> <p>c. Take notes on learning materials</p> <p>d. Presentation</p> <p><b>Media:</b></p> <p>a. Slides/ ppt</p> <p>b. Zoom meeting/ LCD</p> <p>c. Text book</p>	
10 & 11	<p>Sub-CLO 7:</p> <p>After participating in this lecture, students will be able to explain the development of dairy cattle business.</p>	<p>a. Accuracy in explaining the development of dairy cattle business by involving various <i>stakeholders</i></p>	<p><b>Criteria:</b> Using an assessment rubric</p> <p><b>Techniques:</b> <i>Non-test</i></p>	<p>KM+PT (2 weeks x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p> <p><b>Activities:</b></p> <p>a. Attendance</p> <p>b. Review the material for</p>	<p>TM (2 weeks x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <p>a. <i>Lecture</i></p> <p>b. <i>Discussion</i></p> <p><b>Activities:</b></p> <p>a. <i>Online/offline learning</i></p> <p>b. <i>Class discussion</i></p>	<p><b>Subject matter:</b></p> <p>a. Dairy business development by involving various <i>stakeholders</i></p>

C4 (analyse)  
C5 (evaluate)

Quiz  
1%

PBL  
30%

(CLO  
& C  
130

				<p>the week 9 meeting</p> <p>c. Introduction</p> <p>d. Tasks</p> <p><b>Task 2:</b></p> <p>a. Divide the group evenly (lecturer divides)</p> <p>b. Make a paper with TNR font size 12 space 1.5 sent in pdf form</p> <p>c. Group presentation</p> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p>c. Take notes on learning materials</p> <p>d. Presentation</p> <p><b>Media:</b></p> <p>d. Slides/ ppt</p> <p>e. Zoom meeting/ LCD</p> <p>f. Text book</p>			
12	<p>Sub-CLO 8:</p> <p>After attending this lecture, students will be able to explain the concept of <i>Dairy Integrated Farming System</i> in realising Indonesia's SDGs 2030.</p>	<p>a. Accuracy in explaining the concept of <i>Dairy Integrated Farming System</i> in realising Indonesia's SDGs 2030.</p>	<p><b>Criteria:</b> Assessment Rubric</p> <p><b>Techniques:</b> <i>Non-test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p> <p><b>Activities:</b> a. Attendance</p>	<p>TM (1 week x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b> a. <i>Lecture</i> b. <i>Discussion</i></p> <p><b>Activities:</b></p>	<p><b>Subject matter:</b> a. <i>Dairy Integrated Farming System</i> concept in realising Indonesia's SDGs 2030</p>	<p>C4 (analyse) C5 (evaluate) C6 (create)</p>	<p>This CLO be assessed during UAS with a weight of 6.67% of the UAS assessment weight (20%</p>

				<p>b. Review the material for the week 10 and 11 meetings</p> <p>c. Introduction</p> <p><b>Moda (Learning Management System):</b> class.usu.ac.id</p>	<p>a. <i>Online/offline learning</i></p> <p>b. <i>Class discussion</i></p> <p>c. Take notes on learning materials</p> <p><b>Media:</b></p> <p>a. Slides/ ppt</p> <p>b. Zoom meeting/ LCD</p> <p>Text book</p>			Quiz 1.5
13 & 14	<p>Sub-CLO 9:</p> <p>After attending this lecture, students will be able to explain the development of modern technology-based animal husbandry.</p>	<p>a. Accuracy in explaining the development of modern technology-based animal husbandry to support milk production and its sustainability</p>	<p><b>Criteria:</b> Assessment Rubric</p> <p><b>Techniques:</b> <i>Non-test</i></p>	<p>KM+PT (1 week x 3 credits x 120 minutes)</p> <p><b>Learning Methods:</b> <i>Self-Paced Learning</i></p> <p><b>Activities:</b></p> <ol style="list-style-type: none"> <li>Attendance</li> <li>Review the material for the week 12 meeting</li> <li>Introduction</li> </ol> <p><b>Moda (Learning Management System):</b></p>	<p>TM (2 weeks x 2 credits x 50 minutes)</p> <p><b>Learning Methods:</b></p> <ol style="list-style-type: none"> <li><i>Lecture</i></li> <li><i>Discussion</i></li> </ol> <p><b>Activities:</b></p> <ol style="list-style-type: none"> <li><i>Online/offline learning</i></li> <li><i>Class discussion</i></li> <li>Take notes on learning materials</li> </ol>	<p><b>Subject matter:</b></p> <ol style="list-style-type: none"> <li>Development of modern technology-based animal husbandry</li> </ol>	<p>C5 (evaluate)</p> <p>C6 (create)</p>	<p>Quiz 1%</p> <p>Task 2.5</p>

				<b>System):</b> class.usu.ac.id	<b>Media:</b> a. Slides/ ppt b. Zoom meeting/ LCD c. Text book				
15	Sub-CLO 10: After attending this lecture, students will be able to explain government policies that affect the role of technology use in dairy farming.	a. Accuracy in explaining government policies that influence the role of technology use in dairy farming	<b>Criteria:</b> Using an assessment rubric  <b>Techniques:</b> <i>Non-test</i>	<b>KM+PT</b> (1 week x 2 credits x 120 minutes)  <b>Learning Methods:</b> <i>Self-Paced Learning</i>  <b>Activities:</b> 1. Attendance 2. Review meeting materials for weeks 13, 14 and 15 3. Introduction  <b>Moda (Learning Management System):</b> class.usu.ac.id	<b>TM</b> (2 weeks x 2 credits x 50 minutes) <b>Learning Methods:</b> a. Lecture b. Discussion  <b>Activities:</b> a. Online/offline learning b. Class discussion c. Take notes on learning materials  <b>Media:</b> a. Slides/ ppt b. Zoom meeting/ LCD c. Text book	<b>Subject matter:</b> a. Government policies that influence the role of technology use in dairy farming	C4 (analyse) C5 (evaluate)	This CLO be assessed during UAS with a weight of 6.67% of the total UAS assessment weight (20%)	
16	<b>END OF SEMESTER EXAM (UAS)</b>								20%

<b>Form of Evaluation</b>	<b>CLO0216</b>	<b>CLO0341</b>	<b>CLO0635</b>	<b>CLO0823</b>	<b>CLO0916</b>	<b>CLO1014</b>	<b>CLO1136</b>	<b>CLO1224</b>
<b>Quiz</b>	Quiz grading		Quiz grading	Quiz grading				Quiz grading
<b>Task</b>	Paper Assessment					Paper Assessment		Paper Assessment
<b>Case Method</b> (presentation and participation in discussion, and <i>practicum/field visit</i> report)	Presentation assessment rubric		Presentation assessment rubric  Practicum report	Presentation assessment rubric  Practicum report	Presentation assessment rubric  Practicum report		Presentation assessment rubric  Practicum report	Presentation assessment rubric  Practicum report
<b>Project Based Learning (PBL)</b> (presentation and participation in discussion, and <i>practicum/field visit</i> report)	Presentation assessment rubric	Presentation assessment rubric	Presentation assessment rubric  Practicum report	Presentation assessment rubric  Practicum report		Presentation assessment rubric  Practicum report	Presentation assessment rubric  Practicum report	Presentation assessment rubric
<b>UTS (Mid Exam)</b>	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)	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)	Mid-term test assessment (multiple choice questions and essay questions)

Form of Evaluation	CLO0216	CLO0341	CLO0635	CLO0823	CLO0916	CLO1014	CLO1136	CLO1224
UAS (Final Exam)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)	UAS assessment (multiple choice questions and essay questions)

### Assessment Plan

Form of Evaluation	Weight (100%)	Frequency
Quiz	5	4 (held on week 2, 3, 9, 12)
Task	5	2 (held on week 1,14)
Case Method	20	4 (held on week 4,5, 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)
<b>Total</b>	<b>100%</b>	

### 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
<b>Understanding of Learning Topics with Resumed Journals</b>	Understand the topic exactly once (25)	Understand the topic (20)	Does not fully and appropriately understand the topic (15)	Not understanding the topic (10)
<b>Contents</b>	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)
<b>Clarity of Writing</b>	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)
<b>Language Clarity</b>	Uses foreign/Indonesian language well and correctly	Uses foreign/Indonesian language well and	Uses foreign/Indonesian language fairly well and	Does not use foreign/Indonesian language

	few grammatical and word choice errors that do not interfere with understanding. (25)	correctly with few grammatical and word choice errors that interfere with understanding. (20)	correctly with some grammatical and word choice errors. (15)	properly and correctly as the writing contains many grammatical and word choice errors. (10)
<b>Total</b>	<b>81-100 (Excellent)</b>	<b>61-80 (Good enough)</b>	<b>41-60 (Enough)</b>	<b>0-40 (Less)</b>

**Group Presentation Task Assessment Rubric:**

<b>CATEGORIES</b>	<b>4 Very good</b>	<b>3 Good</b>	<b>2 Simply</b>	<b>1 Less</b>
<b>Group Preparation</b>	<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>
<b>Presentation Organization</b>	<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.</p>	<p>The group presented the content logically and systematically, with an introduction, main idea and conclusion.</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.</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.</p>

	(25)	The group used visual aids that showed a link to the content of the presentation. (20)	(15)	(10)
<b>Task Achievement</b>	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)	Each group member demonstrates good knowledge through their own exposure and elaboration but in less time than the time allocated to them. (20)	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)	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)
<b>Mastery of Presentation Content</b>	Each group member demonstrates full understanding of the presentation topic.  The main points presented are supported by evidence and critically evaluated. (25)	Each group member demonstrated a good understanding of the presentation topic.  Most of the main points are illustrated with relevant evidence.  (20)	Each group member demonstrated a good understanding of some aspect of the topic.  Some illustrations are given, but not critically evaluated. (15)	Each group member did not seem to understand the presentation topic very well.  Some evidence was mentioned, but not integrated in the presentation or evaluated. (10)
<b>Answers to Questions</b>	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)
<b>Communication Quality</b>	Group interaction with the audience shows interest and respect for the opinions of	Group interaction with an audience shows interest and respect for the opinions of others. Responses generally	Some parts of the interaction in the discussion show interest and respect for others' opinions.	Interaction in the discussion shows disrespect for other people's opinions. Responses

	others. Responses support effective communication. (25)	support effective communication. (20)	(15)	do not support effective communication. (10)
<b>Total</b>	<b>81-100 (Excellent)</b>	<b>61-80 (Good enough)</b>	<b>41-60 (Enough)</b>	<b>0-40 (Less)</b>

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:

<b>Assessment Criteria</b>	<b>4 Very good</b>	<b>3 Good</b>	<b>2 Simply</b>	<b>1 Less</b>
<b>Understanding of the Question</b>	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)
<b>Contents</b>	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)
<b>Clarity of Writing</b>	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)
<b>Language Clarity</b>	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	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.

		interfere with understanding. (20)		(10)
<b>Total</b>	<b>81-100 (Excellent)</b>	<b>61-80 (Good enough)</b>	<b>41-60 (Enough)</b>	<b>0-40 (Less)</b>

**Multiple Choice Exam Scoring Rubric:**

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