	UNIVERSITAS SUMATERA UTARA (USU) FACULTY OF AGRICULTURE ANIMAL SCIENCE STUDY PROGRAM	Document Code (Follow)

SEMESTER LEARNING PLAN (SLP)

COURSE	CODE	COURSE GROUP	CREDIT		SEMESTER	Date of Compilation
Hatching Technology	PTN3231	Exact	**Theory** =2	**Practice** =1	VI (Six)	

AUTHORIZATION / APPROVAL	SLP Developer Lecturer	Vice Dean I	Chairman of LINK-UP USU
	Ir. Achmad Sadeli, S.Pt., M.Sc., IPM., ASEAN.Eng	Dr. Lisnawita, SP, MP	Prof. Dr. Dwi Suryanto M.Sc.

Learning Outcomes	LO-PRODI Charged to MK	
	LO03	Able to identify, formulate, and find solutions to problems related to the livestock sector
	LO06	Conduct supervision and evaluation of the completion of assigned work and be able to manage lifelong learning independently
	LO07	Able to disseminate knowledge and application of the latest TALENT-based technology in the field of animal husbandry
	LO08	Able to manage integrated and sustainable livestock farming based on integration with other agro-ecosystems as well as the latest applications in processing livestock products and waste.
	LO11	Able to develop, understand and apply a variety of the best techniques and methods that combine theory and practice relevant to livestock expertise.

Course Learning Outcomes (CLO)	CLO Credit
CLO0336:Able to explain solutions to problems in applying technology in egg hatching	28%
CLO0631:Able to evaluate the application of technology in egg hatching	22.56%
CLO0707:Able to apply technology in the egg hatching process	15.60%

	CLO0819: Able to integrate agricultural and plantation waste related to the egg hatching process	3.84%
	CLO1131: Able to hatch eggs by applying the latest techniques and technology	13.63%
	CLO1322: Able to apply egg hatching technology in a monodisciplinary and/or interdisciplinary scope	16.22%

Final Ability of Each Learning Stage (Sub-CLO)	
Sub-CLO1	After taking this lecture, students will be able to explain the general overview of hatching technology.
Sub-CLO2	After taking this lecture, students will be able to explain the development of egg embryos.
Sub-CLO3	After taking this lecture, students will be able to explain about handling hatching eggs.
Sub-CLO4	After taking this lecture, students will be able to explain the critical period of egg hatching.
Sub-CLO5	After taking this lecture, students will be able to explain the egg hatching management area.
Sub-CLO6	After taking this lecture, students will be able to explain the types of incubators.
Sub-CLO7	After taking this lecture, students will be able to explain semi-automatic incubators.
Sub-CLO8	After taking this course, students will be able to explain hatching management.
Sub-CLO9	After taking this lecture, students will be able to explain embryo development and DOC handling.
Sub-CLO10	After taking this lecture, students will be able to explain the evaluation of hatching results.
Sub-CLO 11	After taking this course, students will be able to explain modern hatchery management.

Correlation of CLO with Sub-CLO

	Sub-CLO 1	**Sub-CLO 2**	**Sub-CLO 3**	**Sub-CLO 4**	**Sub-CLO 5**	**Sub-CLO 6**	**Sub-CLO 7**	**Sub-CLO 8**	**Sub-CLO 9**	**Sub-CLO 10**	**Sub-CLO 11**
CLO1	√		√	√	√	√	√	√	√	√	√
CLO2		√	√	√		√	√	√	√	√	√
CLO3		√		√		√	√	√		√	√
CLO4					√						
CLO 5			√			√	√	√	√	√	
CLO 6						√	√	√	√	√	√

Brief Description of Course	After completing the Hatching Technology course, semester VI students of the Animal Husbandry Study Program, Faculty of Agriculture, University of North Sumatra are expected to be able to explain and skillfully apply the correct processing techniques for various livestock commodities, so that after taking this course, students are expected to have skills in processing livestock products.
Study Material: Learning materials	**BK03**Animal Production Science **BK07**Application and Development of Animal Science and Technology 1. Introduction (definition, scope, types, history of hatching) 2. Development of egg embryo 3. Handling of hatching eggs 4. Critical period of egg hatching 5. Egg hatching management area 6. Advanced hatching (selection, handling and preparation of hatching eggs) 7. Types of incubators (models, how they work, and advantages) 8. Semi-automatic incubator 9. Hatching management (temperature, humidity and air aeration control) 10. Advanced hatching management (egg turning, candling, and factors influencing hatchability) 11. Embryo development and DOC handling 12. Evaluation of hatching results (hatching rate and grading) 13. Modern hatchery management (terminal, holding room, and setter) 14. Modern hatching management (transfer of eggs to hatcher and vaccination)
Library	**Main:** 1. Rasyaf, M. 1991. Egg Production Management. Yogyakarta: Kanisius 2. Ulupi, N. and I. Rahayu. 2014. Poultry Breeding and Hatching Management. Bogor: IPB Press. 3. Yuwanta, T. 2007. Eggs and Egg Production. Yogyakarta: Gadjah Mada University Press 4. Stadelman, W.J., D. Newkirk, L. Newby. 1995. Egg Science and Technology 4th ed. Boca Raton: CRC Press 5. Kurtini, T and Rr. Riyanti. 2003. Hatching Technology. Textbook. University of Lampung, Lampung. 6. Nuryati, T., Sutarto, and Karim, M.,2000. Successful Hatching of Eggs. Spreader 7. Sudaryani, T. 2006. Egg Quality. Jakarta: Penebar Swadaya 8. North, MD and DD Bel. 1990. Commercial Chicken Production Manual. 4th ed. United States: The Avi Publishing Company Inc 9. Randall, MC 1986. Raising Japanese Quail. New South Wales: Department of Agriculture.

	10. Jadhav, NV 2014. Practical Manual for Poultry Production and Hatchery. New Delhi: Daya Publishing Houses 11. Anthonius Riyanto, et al. 2001. Successfully Hatching Chicken Eggs. Jakarta: Agromedia, Pustaka. 12. Paimin, .F B. 2011. Making a Simple Hatching Machine. Jakarta: Penebar Swadaya 13. Wirapatha. M, GAMK Dewi. 2016. Poultry Farming Business Management. Lab. Poultry Farming, Faculty of Animal Husbandry, Udayana University
	Supporters: 1. Crawford, RD 1990. Poultry Breeding and Genetics. Amsterdam: Elsevier 2. PT. Multi Breeder Adirama Indonesia. Tbk. (Japfaconfeed). 2002. Hacthery Management. 3. Cobb. 2008. Hatchery Management Guide. Arkansas, America. 4. Lohmann. 2008. Hatchery Management Guide The Lohmann Tierzucht Veterinary. Cuxhaven, Germany. 5. Practical guide book 6. National and international journals
Supporting lecturer	Dr. Ade Trisna S.Pt., MM Ir. Tati Vidiana Sari S.Pt., MP., IPM Vivi Indriani, S.Pt., M.Si
Required Courses	-

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 Credit (%)**
		Indicator	**Criteria and Techniques**				
(1)	**(2)**	**(3)**	**(4)**	**Asynchronous (5)**	**Synchronous (6)**	**(7)**	**(8)**
1	**Sub-CLO1:** After taking this lecture, students will be able to explain the general picture of hatching.	Accuracy in explaining the general description of the role of hatching technology in supporting	**Criteria:** - **Technique:** Non-Test	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 1. Attendance absence 2. Download and read the Syllabus (RPS), Learning Implementation	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking*	**Subject:** 1. Study Contract 2. Overview and scope of the coursehatching technology	0%

		knowledge in the field of animal husbandry		Plan (SAP), Course Agreement, and Learning Materials. **Learning methods:** *Self-Paced Learning* **Mode (Learning Management System):** elearning@usu.ac.id	**Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* 3. *Self-Paced*	3. Typeshatching technology 4. Historyhatching technology	
2	**Sub-CLO 2:** After taking this lecture, students will be able to explain about eggs (structure, composition, and shape of eggs)	1. Accuracy in explaining the structure of eggs 2. Accuracy in explaining the composition of eggs 3. Accuracy in explaining the shape of the egg	**Criteria:** Assessment rubric. **Technique:** *Non-Test*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 **Mode (Learning Management System):** elearning@usu.ac.id	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* 3. *Self-Paced*	**Subject:** 1. Egg structure 2. Egg composition 3. Egg shape	This Sub CLO will be assessed during the MID TERM EXAM with a MID TERM EXAM assessment Crediting of (15%). (CLO0336, CLO0631, CLO0707, CLO0819.

							CLO1131, CLO1322)
3	**Sub-CLO 3:** After taking this lecture, students will be able to explain egg anomalies.	1. Accuracy in describing external quality 2. Accuracy in describing internal quality	**Criteria:** Assessment rubric. **Technique:** *Test:* *1. Quiz*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 ***Quiz 1:*** *Quiz to measure students' understanding of egg anomalies.* **Mode (Learning Management System):** elearning@usu.ac.id	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*	**Subject:** 1. External quality 2. Internal quality	Quiz 1: 5% (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)
4	**Sub-CLO 4:** After taking this lecture, students will be able to explain the requirements for hatching eggs.	Accuracy in explaining the conditions for hatching eggs	**Criteria:** Assessment rubric. **Technique:** *Test:* *1. Case method*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 1.Attendance absence 2.Download and read the Syllabus (RPS),	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion*	**Subject:** Conditions for hatching eggs	Case Method 1: 12.5% (CLO0336, CLO0631, CLO0707,

				Learning Implementation Plan (SAP), Course Agreement, and Learning Materials. 3.Responding to the opening question ***Case Method 1:*** 1.Divide the groups evenly (the lecturer divides) 2.Create a paper on the requirements for hatching eggs, a maximum of 15 pages from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format. 3.Group presentation **Mode (Learning Management System):** elearning@usu.ac.id	*3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*		CLO0819. CLO1131, CLO1322)

5-6	**Sub-CLO 5:** After taking this lecture, students will be able to explain about hatching.	1.Accuracy in explaining hatching requirements 2.Accuracy in explaining the principles of hatching 3.Accuracy in explaining hatching parameters 4.Accuracy in determining hatching eggs 5.Accuracy in explaining handling and preparation of hatching eggs	**Criteria:** Assessment rubric. **Technique:** *Test:* *1. Case method*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 ***Case Method 2:*** 1.Divide the groups evenly (the lecturer divides) 2.Create a hatching 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. 3.Group presentation **Mode (Learning Management System):** elearning@usu.ac.id	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*	**Subject:** 1. Hatching requirements 2. Principle of hatching 3. Hatching parameters 4. Selection of hatching eggs 5. Handling and preparation of hatching eggs	Case Method 2: 12.5% (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)

7	**Sub-CLO 6:** After taking this lecture, students will be able to explain the types of incubators.	1.Accuracy in explaining the incubator model 2.Accuracy in explaining how each type of incubator works 3.Accuracy in explaining the advantages of each type of incubator	**Criteria:** Assessment rubric. **Technique:** *Non-Test:*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 **Mode (Learning Management System):** elearning@usu.ac.id	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*	**Subject:** 1. Incubator model 2. How each type of incubator works 3. The advantages of each type of incubator	This Sub CLO will be assessed during the MID TERM EXAM with a MID TERM EXAM assessment Crediting of (15%). (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)
8	MID SEMESTER EXAMINATION						20%
9	**Sub-CLO 7:** After taking this lecture, students will be able to explain about semi-automatic incubators.	Accuracy in explaining about semi-automatic incubator	**Criteria:** Assessment rubric. **Technique:** *Non-Test*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 1.Attendance absence 2.Download and read the Syllabus (RPS), Learning Implementation Plan (SAP), Course	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking*	**Subject:** Semi-automatic incubator	This Sub CLO will be assessed during the FINAL EXAM with a FINAL

				Agreement, and Learning Materials. 3.Responding to the opening question **Mode (Learning Management System):** elearning@usu.ac.id	**Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*		EXAM assessment Crediting of 15%. (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)
10-11	**Sub-CLO 8:** After taking this lecture, students will be able to explain about hatching management.	1. Accuracy in explaining the regulation of temperature, humidity and air aeration 2. Accuracy in explaining egg turning techniques 3. Accuracy in explaining egg processing candling management 4. Accuracy in explaining factors that influence hatching power	**Criteria:** Assessment rubric. **Technique:** *Test:* 1. *Case Method*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 ***Case Method 3:*** 1.Divide the groups evenly (the lecturer divides) 2.Create a hatchery management paper with a	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* 3. *Self-Paced*	**Subject:** 1. Temperature, humidity and air aeration control) 2. Egg turning technique 3. Candle management 4. Factors that affect hatching power	Case Method 3: 12.5% (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)

				maximum of 15 pages from the table of contents to the bibliography, TMR font size 12, 1.5 spacing, sent in PDF format. **Mode (Learning Management System):** elearning@usu.ac.id			
12	**Sub-CLO 9**: After taking this lecture, students will be able to explain embryo development and DOC handling.	1. Accuracy in explaining embryonic development 2. Accuracy in explaining the preparation of hatching eggs 3. Accuracy in explaining DOC handling	**Criteria:** Assessment rubric. **Technique:** *Test:* 1. *Quiz*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 ***Quiz 2:*** *Quiz to measure students' understanding of DOC development and handling*	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*	**Subject:** 1. Embryo development 2. Preparation of hatching eggs 3. DOC Handling	Quiz 2: 5% (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)

				Mode (Learning Management System): elearning@usu.ac.id			
13	**Sub-CLO 10**: After taking this lecture, students will be able to explain about hatching results evaluation.	1. Accuracy in explaining hatching rate 2. Accuracy in explaining grading	**Criteria:** Assessment rubric. **Technique:** *Non-Test:*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 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 **Mode (Learning Management System):** elearning@usu.ac.id	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion* *3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*	**Subject:** 1. Hatching rate 2. Grading	This Sub CLO will be assessed during the FINAL EXAM with a FINAL EXAM assessment Crediting of 15%. (CLO0336, CLO0631, CLO0707, CLO0819. CLO1131, CLO1322)
14-15	**Sub-CLO 11**: After taking this course, students will be able to explain modern hatchery management.	1. Accuracy in explaining modern hatchery management (terminal,	**Criteria:** Assessment rubric. **Technique:** *Test:* 1. *Case method*	KM+PT (1 week x 2 credits x 120 minutes) **Activity:** 1.Attendance absence 2.Download and read the Syllabus (RPS),	TM (1 week x 2 credits x 50 minutes) **Activity:** *1. Offline Learning* *2. Class Discussion*	**Subject:** 1. Modern hatchery management (terminal, holding room, and setter)	Case Method 4: 12.5% (CLO0336, CLO0631, CLO0707,

		holding room, and setter) 2. Accuracy in explaining egg transfer to hetcher 3. Accuracy in explaining post-hatch vaccination		Learning Implementation Plan (SAP), Course Agreement, and Learning Materials. 3.Responding to the opening question ***Case Method 3:*** 1.Divide the groups evenly (the lecturer divides) 2.Create a modern hatchery management 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. **Mode (Learning Management System):** elearning@usu.ac.id	*3. Note Taking* **Media:** *1. Power Point Presentation* *2. Text Book* **Learning methods**: *1. Lecturer* *2. Discussion* *3. Self-Paced*	2. Transfer eggs to hetcher 3. Post-hatch vaccination	CLO0819. CLO1131, CLO1322)
16	FINAL SEMESTER EXAMINATION						20%

Assessment Design:

CLO Code and Percentage	Sub-CLO Code	Evaluation Form	Percentage (%)	Total	Implementation of Evaluation
CLO0336(28%)	Sub-CLO1	MID TERM EXAM	2.85	28	Week 8
	Sub-CLO3	Quiz	1.25		Week 3
	Sub-CLO4	Project Based Learning	3.84		Week 8
	Sub-CLO5	Project Based Learning	3.84		Week 8
	Sub-CLO6	MID TERM EXAM	2.85		Week 8
	Sub-CLO7	FINAL EXAM	2.22		Week 15
	Sub-CLO8	Project Based Learning	3.84		Week 15
	Sub-CLO9	Quiz	1.25		Week 12
	Sub-CLO10	FINAL EXAM	2.22		Week 15
	Sub-CLO11	Project Based Learning	3.84		Week 15
CLO0631 (22.56%)	Sub-CLO2	MID TERM EXAM	2.85	22.56	Week 8
	Sub-CLO3	Quiz	1.25		Week 3
	Sub-CLO4	Project Based Learning	3.84		Week 8
	Sub-CLO6	Quiz	1.25		Week 12
	Sub-CLO7	FINAL EXAM	2.22		Week 15

	Sub-CLO8	Project Based Learning	3.84		Week 15
	Sub-CLO9	Quiz	1.25		Week 12
	Sub-CLO10	FINAL EXAM	2.22		Week 15
	Sub-CLO11	Project Based Learning	3.84		Week 15
CLO0707 (15.60%)	Sub-CLO2	MID TERM EXAM	2.85	15.60	Week 8
	Sub-CLO4	Project Based Learning	3.84		Week 8
	Sub-CLO6	MID TERM EXAM	2.85		Week 8
	Sub-CLO7	FINAL EXAM	2.22		Week 15
	Sub-CLO8	Project Based Learning	3.84		Week 15
CLO0819(2.56%)	Sub-CLO5	Project Based Learning	3.84	3.84	Week 8
CLO1131 (13.63%)	Sub-CLO3	Quiz	1.25	13.63	Week 3
	Sub-CLO6	MID TERM EXAM	2.85		Week 8
	Sub-CLO7	FINAL EXAM	2.22		Week 15
	Sub-CLO8	Project Based Learning	3.84		Week 15
	Sub-CLO9	Quiz	1.25		Week 12
	Sub-CLO10	FINAL EXAM	2.22		Week 15
CLO1322(16.22%)	Sub-CLO6	MID TERM EXAM	2.85	16.22	Week 8

	Sub-CLO7	FINAL EXAM	2.22		Week 15
	Sub-CLO8	Project Based Learning	3.84		Week 15
	Sub-CLO9	Quiz	1.25		Week 12
	Sub-CLO10	FINAL EXAM	2.22		Week 15
	Sub-CLO11	Project Based Learning	3.84		Week 15
Total			100%	100%	

Assessment Plan:

Evaluation Form	Sub-CLO	Assessment Instrument [Frequency]		Invoice (proof)	Assessment Credit (%)
		Formative	Summative		
Quiz/Q&A	Sub-CLO3 and Sub-CLO9	Assessment rubric [2 times]	-	Quiz answers uploaded to kelas.usu.ac.id	5
Assignment	Sub-CLO9	Assessment rubric [2 times]	-	Assignment answers uploaded to kelas.usu.ac.id	5
Project Based Learning	Sub-CLO4, Sub-CLO5, Sub-CLO8 and Sub-CLO11	Feedback results case analysis [3 times]	Assessment rubric [2 times]	Logbook/worksheet/slides uploaded to kelas.usu.ac.id	30
Case Method	Sub-CLO4, Sub-CLO5,	Feedback results case analysis	Assessment rubric [2 times]	Logbook/worksheet/slides uploaded to kelas.usu.ac.id	20

	Sub-CLO8 and Sub-CLO11	[2 times]			
Written exam 1 (MID TERM EXAM)	Sub-CLO1, Sub-CLO2, Sub-CLO3, Sub-CLO4, Sub-CLO5 and Sub-CLO6	-	Assessment rubric [1 time]	Written exam result sheet	20
Written exam 2 (FINAL EXAM)	Sub-CLO7, Sub-CLO8, Sub-CLO9, Sub-CLO10 and Sub-CLO11	-	Assessment rubric [1 time]	Written exam result sheet	20
Total					**100%**

Explanation:

a) Quiz 5%
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) Assignment 5%
During the semester there will be 1 structured assignments. The assignment given is an effort to add insight by making a resume related to the material written in the RPS.

c) Project-based learning 30%
During the semester there will be case methods, each student will make a paper and report on each case method in groups. Project based learning in this course is conducted 1 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) 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 1 time. 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.

e) Mid-semester exam (UTS) (mid-test) 20%
The midterm exam covers all the material that has been covered since the beginning of the semester until the 7th meeting both reading and lectures. This exam is conducted in class with multiple choice, short form, and essay questions.

f) Final-semester exam (UAS) (final-test) 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 form, and essay questions.

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)$20 \times \sum nilai\ per\ butir\ soal$

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

Total score if you take all post-test quizzes with a perfect score is 200 x 10%[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)	Substantially incomplete (12)
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)
TOTAL	**100 (Very Good)**	**90-80 (Very well)**	**79-70 (Good)**	**69-50 (Pretty good)**	**59-40 (Not good)**

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 x 50% = 50 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 x 12.5% = 12.5 points.

Essay Exam Assessment Rubric:

Assessment criteria	4 Very good	3 Good	2 Enough	1 Not enough
Understanding the Questions	Understand the question exactly once (25)	Understanding the questions (20)	Not understanding the question fully and correctly (15)	Don't understand the question (10)
Contents	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)
Clarity of Writing	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)
Clarity of Language	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	Uses foreign/Indonesian language quite well and correctly with some	Does not use foreign/Indonesian language properly and correctly because the writing contains many

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

Multiple Choice Exam Scoring Rubric:

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