

**PLAN LEARNING SEMESTER (RPS) BASED ON OBE SCIENCE OF
ANIMAL REPRODUCTION**

PT137 3(2-1)



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**PROGRAM STUDIES ANIMAL
HUSBANDRY FACULTY OF ANIMAL
HUSBANDRY, ANDALAS UNIVERSITY
2023**



**ANDALAS UNIVERSITY, FACULTY
OF ANIMAL HUSBANDRY,
PROGRAM STUDIES FARM
DEPARTMENT TECHNOLOGY PRODUCTION CATTLE**

**Docu-
ment Code**

PLAN LEARNING SEMESTER (RPS) BASED OBE

EYE STUDYING (MK)	CODE	URL I-Learn Eye Studying	WEIGHT (credits)	SEMESTER	DATE COMPILATION
Knowledge Livestock Reproduction	PT137	https://ilearn.unand.ac.id/	3 (2-1)	III (Three)	01 August 2023

AUTHORIZATION

Developer RPS OBE

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Coordinator MK

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CPL – STUDY PROGRAM Which charged on MK

1. ILO 1. Internalize mark base university, code ethics, And scientific ethics
2. ILO 2. Demonstrate knowledge And technology farm Which innovative
3. ILO 3. Applying technology For finish problem in field farm as well as look for solution Which appropriate And effective)
4. ILO 4. Use thought logical, think creative, think critical, And collaborative

Achievements Learning Eye Lecture (CPMK)

1. Internalize mark base university, code ethics, And ethics scientific in field Knowledge Reproduction Cattle. (ILO 1)
2. Demonstrate knowledge And technology farm Which innovative in field Knowledge Reproduction Cattle (ILO 2)
3. Applying knowledge And technology Reproduction Cattle For finish problem in field farm as well as look for solution appropriate and effective (ILO 3)
4. Use thought logical, think creative, think critical, And collaborative in field Knowledge Reproduction Cattle (ILO 4)

**Learning
Outcomes
(CP)**

	Ability end each stages Study (Sub- CPMK)	
	1. Student capable explain understanding and room scope knowledge reproduction cattle (CPMK 1) 2. Student capable explain And describe anatomy And function organ reproduction cattle Male (CPMK 3) 3. Student capable explain And describe anatomy And function organ reproduction cattle female (CPMK 3)	

	4. Student capable explain And describe anatomy And function hypothalamus & pituitary gland (PPMK) 2) 5. Student capable explain understanding And types hormone reproduction (CPMK 2) 6. Students are able to explain puberty and behavior sex (CPMK 4) 7. Student capable explain role cycle estrus (CPMK 3) 8. Student capable explain gametogenesis (CPMK 2) 9. Student capable explain process fertilization (CPMK) 3) 10. Student capable explain process pregnancy (CPMK 2) 11. Student capable explain process birth (CPMK) 3) 12. Student capable explain process puerpureum (CPMK 4)	
Short Description Subject	The Animal Reproductive Science course discusses the basic concepts of reproduction, understanding reproduction in livestock, male reproductive organs and... females, reproductive control hormones, the role of nerves, reproductive cycle, fertilization, pregnancy, birth and sexual behavior (PjBL).	
Material Study: Learning Materials	1. Understanding And room scope knowledge reproduction cattle 2. Anatomy And function organ reproduction cattle male 3. Anatomy And function organ reproduction cattle female 4. Anatomy And function hypothalamus & pituitary gland 5. Hormone Reproduction 6. Puberty and behavior sex 7. Role estrus cycle 8. Gametogenesis 9. Process fertilization 10. Process pregnancy 11. Process birth 12. Process puerpureum	
List Library	Main	
	1. Hafez, NOT 2000. Reproduction in Farm Animals, 7 TH ed. Lea Febriger, 600 Washington Square, Philadelphia. 2. Partodihardjo, S. 1992. Reproduction equal Animal. Pearl , Bandung.	
	Supporters	

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| | <ol style="list-style-type: none">1. Toelihere, MR 1977. Physiology reproduction on cattle. Space, Bandung.2. Toelihere, MR 1985. Knowledge Midwifery on Cattle Cow And Buffalo. UI Press, Jakarta. |
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	3. Feradis. 2010. Reproduction Cattle. Alphabet, Bandung. 4. Ptaszynska, M. 2009. Compendium of Animal Reproduction, 10 Th ed. Intervet International, Netherlands. 5. Chedrese,P.J. 2009. Reproductive Endocrinology. Springer, New York USA. 6. Senger, P.L. 1999. Pathways to Pregnancy and Parturation. The Mack Printing Group-Science Press, Washington. 7. Etches, RJ 1996. Reproduction in Poultry. UK at the University Press, Cambridge. 8. Results study latest Which published on Journal/Proceedings National and International	
Instructional Media	Device Soft	Device Hard
	Ms. Office/ Zoom Meeting/ Google Meet/Learn	PC/ Laptop/ Gedgat/ Smart Phone
<i>Team Teaching</i>	1. Prof. Dr. Ir. Olives Udin, M.Sc 2. Dr. Ir. Masrizal, MS 3. Dr. Mr. Hendri, MS 4. Dr. Ir. Jaswandi, MS 5. Syafri Nanda, S.Pt., M.Sc 6. Ananda, S.Sc., M.Sc	
Eye Prerequisite Courses	Biology	

Week 2	Sub- CPMK	Assessment Indicators	Assessment Form	Activity Learning [Time Estimation]				Media	Learning Materials [References)	Assessment Weight (%)
(1)	(2)	(3)	(4)	Synchronous*		Asynchronous**		(9)	(10)	(11)
				Offline	Online	Independent	Collaborative			
				(5)	(6)	(7)	(8)			
1	Students are able to explain the meaning and scope animal reproduction science	1. Accuracy in explaining the meaning and the scope of livestock reproduction science 2. Accuracy / sharpness in responding; Communication that effective	1. Material/ Discussion	Lecture , Introduction to RPS, Explanation and discussion assignments , [2×50 minute]	-	-	-	<i>Ilearn</i>	Definition and space scope animal reproduction science	10%

2- 3	Students are able to explain and draw the anatomy and function of livestock reproductive organs . male	Accuracy in explaining and describing anatomy and the function of the reproductive organs of male livestock	1. Progress / Advance ment	Review and discussion , [2×50 Minute]	-	Students study the anatomy and function of the reproductive organs of male livestock taken from slaughterhouses. Animals (RPH) that implemented in	Students discuss in teams /group	<i>Illearn</i>	Anatomy And function of male livestock reproductive organs	10%
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						Reproductive Laboratory.				
4- 5	Students are able to explain and draw the anatomy and function of livestock reproductive organs . female	Accuracy in explaining and describing anatomy and the function of the reproductive organs of female livestock	1. Progress	Review and discussion , [2×50 Minute]	-	Students study the anatomy and function of the reproductive organs of female livestock from the slaughterhouse. Animals (RPH) that are carried out in the Laboratory Reproduction	Students discuss in teams /group	<i>Ilearn</i>	Anatomy And function of the reproductive organs of female livestock	10%
6	Students are able to explain and draw the anatomy and function of the hypothalamus and pituitary gland.	Accuracy in explaining and describing the anatomy and function of the hypothalamus and pituitary gland	1. Progress	Review and discussion , [2×50 Minute]	-	Students Study the Anatomy and Function of the Hypothalamus from the Slaughterhouse Animals (RPH) that are carried out in the Laboratory Reproduction	Students discuss in teams /group	<i>Ilearn</i>	Anatomy and hypothalamic function	10%

7	Students are able to explain the meaning	Accuracy explains the meaning and	1. Progress / Advance ment	Review and discussion [2×50	-	Students identify the types	Students discuss in teams /group	<i>Ilearn</i>	Reproductive Hormones	10%
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	and types reproductive hormones	types of reproductive hormones		Minute]		hormones in the laboratory (Location; Reproductive Laboratory (Livestock)				
8	Evaluation Middle Semester (UTS)									
9	Students are able to explain puberty and sexual behavior	1. Accuracy in explaining puberty in livestock 2. Accuracy in explaining sexual behavior on cattle	3. Progress / Advancement	Review and discussion, [2×50 Minute]	-	Students identify puberty and sexual behavior in cattle/goats/buffaloes at the Edu Farm, Faculty of Animal Husbandry	Students discuss in teams /group	<i>Ilearn</i>	Puberty and behavior sex	5%
10	Students are able to explain the role of cycles estrus	Accuracy in explaining the role of the estrous cycle	1. Progress / advancement	-	Review and discussion, [2×50 Minute]	Students identify the estrus cycle in cattle/goats/buffaloes in Faculty of Edu Farm Farm	Students discuss in teams /group	<i>Ilearn</i>	Role estrus cycle	10%
11	Students are able to explain gametogenesis	Accuracy in explaining gametogenesis	1. Progress / Advancement	Review and discussion, [2×50	-	Students study gametogenesis from animated videos.	Students discuss in teams /group	<i>Ilearn</i>	Gametogenesis	10%

	s			Minute]						
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						has been determined				
12	Students are able to explain the fertilization process	Accuracy in explaining fertilization process	1. Progress	Review and discussion, [2×50 Minute]	-	Students Study Fertilization from the fertilization video and direct observation of fertilization implementation in the laboratory livestock reproduction	Students discuss in teams /group	<i>Ilearn</i>	Process fertilization	10
13	Students are able to explain the pregnancy process	Accuracy in explaining the pregnancy process	1. Progress / Advance ment	Review and discussion, [2×50 Minute]	-	Students identify pregnancy in cattle/goats/buffaloes in Faculty of Edu Farm Farm	Students discuss in teams /group	<i>Ilearn</i>	Process pregnancy	5%

14	Students are able to explain the birth process	Accuracy in explaining the birth process	1. Progress	-	Review and discussion, [2×50 Minute]	Students identify the birth process in cattle/goats/buffaloes in Faculty of Edu Farm Farm	Students discuss in teams /group	<i>Ilearn</i>	Process birth	5%
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15	Students are able to explain the puerperium process	Accuracy in explaining the puerpureum process	1. Progress	Review and discussion, [2×50 Minute]	-	Students identify the puerperium process in cattle/goats/buffaloes at the Faculty of Agriculture's Edu Farm	Students discuss in teams /group	<i>Ilearn</i>	Process puerpureum	5%
16	Evaluation End Semester (UAS) - Report End of PjBL									

Notes:

1. Achievements Learning Graduate of Program Studies (CPL-Prodi) Which charged on subject is ability Which owned by Each graduate of the study program is an internalization of attitudes, mastery of knowledge and skills according to the level of the study program obtained through the learning process.
2. ILO is *Intended Learning Outcome* or achievements learning graduate of study program, It is formulation competence Which expected achieved by graduates of study programs that are the Graduate Competency Standards (SN Dikti, Permendikbud No. 3 of 2021)
3. CPL charged in the eyes college is some learning outcomes study program graduates (CPL-Prodi) which are used to form/develop a course consisting of aspects of attitude, knowledge, general skills, and special skills.
4. Course CP (CPMK) is a capability that is specifically described from the CPL that is assigned to the course, and is specific to the study material or learning material of the course.
5. Sub-CP Course (Sub-CPMK) is a capability that is specifically described from CPMK that can be measured or observed and is the final capability planned at each stage of learning, and is specific to the learning material of the course.
6. Indicators for assessing abilities in the process and results of student learning are specific and measurable statements that identify the abilities or performance of student learning outcomes accompanied by evidence.
7. Criteria Evaluation is benchmark Which used as size or reject measuring achievement learning in evaluation based on established indicators. Assessment criteria are guidelines for assessors to ensure consistent and unbiased assessments.
8. Synchronous is activity learning which done on time Which same on location Which The same (*Offline*) or Different (*Online*)

9. Asynchronous is activity learning which done on time And place different in a way: Independent (without person other) or Collaborative (with other people/in groups).

Media learning can in the form of:

- (1) Meeting face advance virtually (*real time*), for example use Zoom, Google Meet, Microsoft Teams, WebEx, And etc.
- (2) Direct interaction based text, can done on LMS (i-learning Unand) or Media Social like : Whatsapp, Telegram, Messenger, etc.
- (3) Communication direct through voice (*voice*) via *phone* and Whatsapp.
- (4) Material teach in the form of text in format PDF like: *e-Book* , *E-Journal* or HTML (*hypertext*).
- (5) File presentation, like PPT.
- (6) Video with format presentation material studying by lecturer or presenter about description topic, nature monologue, Can Also in the form of Vlog but relevant to CPMK.
- (7) *Motion Graphic* is serving material teach 2 dimensions in format animation, combination between picture, writing And *voice over* .
- (8) Animation (simulation) is serving material simulation or demonstration in format animation two dimensions or 3 dimensions.
- (9) *Audio (Podcast)* is material teach in format audio, Good Which its nature recording (*stand alone*) and *streaming*
- (10) *Assignment* is task independent in the form of exercise understanding draft or practice Which given range time task completion .

INDICATOR, CRITERIA AND WEIGHT EVALUATION

1. Weight Evaluation Every Form Assessment

- a) Report Progress : 23.5%
- b) Report End : 28%
- c) Mid-term exam : 23.5%
- d) Final Exam : 25%

2. Weight Evaluation Each Sub Achievements Learning Subject

- a) Sub CPMK 1 : 10%
- b) Sub CPMK 2 : 10%
- c) Sub CPMK 3 : 10%
- d) Sub CPMK 4 : 10%
- e) Sub CPMK 5 : 10%
- f) Sub CPMK 6 : 5%
- g) Sub CPMK 7 : 10%
- h) Sub CPMK 8 : 10%
- i) Sub CPMK 9 : 10%
- j) Sub CPMK 10 : 5%
- k) Sub CPMK 11 : 5%
- l) Sub CPMK 12 : 5%

3. Assessment Form – Project based Learning

Form Assessment CPMK and/or Sub- CPMK	Progress Report	Mid-term exam	Final report	Final Exam	Total Percentage
1. Student capable explain understanding And room scope knowledge reproduction cattle		10%			10%
2. Student capable explain And describe anatomy And function male livestock reproductive organs	2.5%	3.5%	4%		10%
3. Student capable explain And describe anatomy And function female livestock reproductive organs	2.5%	3.5%	4%		10%
4. Student capable explain And describe anatomy And function hypothalamus & pituitary gland	3%	3	4%		10%
5. Student able to explain understanding And types hormone reproduction	5%	3.5	1.5%		10%
6. Student capable explaining puberty and behavior sex	1%		2%	2%	5%
7. Student capable explain role estrus cycle	2.5%		2.5%	5%	10%
8. Student able to explain gametogenesis	2%		2%	6%	10%
9. Student capable explain process fertilization	2%		2%	6%	10%
10. Student able to explain pregnancy process	1%		2%	2%	5%
11. Student able to explain birth process	1%		2%	2%	5%
12. Student able to explain puerperium process	1%		2%	2%	5%
Total Percentage	23.5%	23.5%	28%	25%	100%

4. Reproduction Assignment Format

	Department Technology Livestock Production				
	PROGRAM FACULTY OF INSTITUTIONAL STUDY	: Farm : Farm : Andalas University			
EYE STUDYING	:	Animal Reproduction Science			
CODE	:	PT137	Credits	3	SEMESTER 3
LECTURER	:	1. Prof. Dr. Ir. Zaituni Udin, M.Sc 2. Dr. Ir. Hendri, MS 3. Dr. Ir. Masrizal, MS 4. Dr. Ir. Jaswandi, MS 5. Syafrin Nanda, S.Pt., M.Si 6. Ananda, S.Si., M.Si			
CASE STUDY/TASK FORM REPRODUCTION	:	TEAM (Group) with Member 4 -5 Person Students			
THEME TASK REPRODUCTION	:	Studies Anatomy along with function organ reproduction And cycle livestock reproduction			
ACHIEVEMENTS LEARNING EYE STUDYING (CPMK and/or SUB-CPMK) THAT WILL BE ACHIEVED FROM THIS CASE STUDY/REPRODUCTION ASSIGNMENT :	:	1. Student capable explain understanding And room scope knowledge livestock reproduction 2. Student capable explain And describe anatomy And function organ reproduction male cattle 3. Student capable explain And describe anatomy And function organ reproduction cattle female 4. Student capable explain And describe anatomy And function hypothalamus & pituitary gland 5. Student capable explain understanding And types hormone reproduction 6. Student able to explain puberty and behavior sex 7. Student capable explain the role cycle estrus 8. Student capable explain gametogenesis 9. Student capable explain process fertilization 10. Student capable explain process pregnancy 11. Student capable explain process birth 12. Student capable explain process puerperium			

DESCRIPTION REPRODUCTION TASK	:	In this reproduction task, each group consisting of 4-5 students is asked to make an anatomical picture along with the function of male and female reproductive organs that are directly observed from reproductive organs originating from slaughterhouses. and observations of the estrus cycle, sexual behavior, pregnancy examination, birth on smallholder farms in West Sumatra by referring to reproductive science standards and existing literature. every observation the. Observation tasks the depicted And displayed in form report end Which has given idea creative in accordance literature in PDF format And ppt Which will assessed observation And the report
STEPS FOR CONDUCTING THE STUDY TASK REPRODUCTION	:	1. Identifying the slaughterhouse where male and female reproductive organs are taken (Location; Type of livestock; Gender of livestock) 2. Study, analyze, and describe anatomy and function reproductive organs male and female in RPH (does it comply with the literature or are there any abnormalities and provide creative ideas) 3. Identifying breeders cow / buffalo / goat/ sheep in Sumatra west (Location; Profile Farm; Type Livestock; Livestock Gender 4. Learn And analyze status And cycle reproduction (cycle) estrus) on livestock that There is on the farm the people (at what stage/cycle? And adjust according to the related literature) 5. Learn, analyze And identify puberty And behavior sex on farm people 6. Studying, analyzing and identifying the fertilization or mating process of livestock in smallholder livestock farming. the 7. Learn, analyze And identify pregnancy cattle female on farm people the 8. Learn, analyze And identify process birth cattle on farm the people
FORM AND OUTPUT FORMAT	:	Report End Task Reproduction (PDF) And PPT)
TIMETABLE IMPLEMENTATION	:	16 Sunday (Syncorn with Sunday on RPS
LIST OF REFERENCES	:	Reference related

5. Rubric Evaluation

Rubric Evaluation Presentation					
Number :					
Name/BP No. Member:					
1					
2					
3					
4					
5					
Achievements Learning Subject Which diases (Sub- CPMK):					
1. Student capable explain understanding And room scope knowledge livestock reproduction 2. Student capable explain And describe anatomy And function organ reproduction male cattle 3. Student capable explain And describe anatomy And function organ reproduction cattle female 4. Student capable explain And describe anatomy And function hypothalamus & pituitary gland 5. Student capable explain understanding And types hormone reproduction 6. Student able to explain puberty and behavior sex 7. Student capable explain the role cycle estrus 8. Student capable explain gametogenesis 9. Student capable explain process fertilization 10. Student capable explain process pregnancy 11. Student capable explain process birth 12. Student capable explain process puerpureum					
Eye Studying : PT137 Knowledge Reproduction Cattle					
Sub- CPMK	Criteria	(45- 49)	(50- 59)	(60- 74)	(75-100)
		<i>Inferior</i>	<i>Average</i>	<i>Good</i>	<i>Excellent</i>

2- 12	<i>Systematics of the paper</i>	The report is compiled systematically writing wrong	Report arranged with correct but incomplete writing system	The report is compiled systematically writing correct and complete	The report is compiled systematically Which Correct and complete with additional information supporters appropriate
2- 12	<i>Clarity And the sequence of the paper</i>	Report No clear, not in accordance with the sequence writing	Report not enough clear, less in accordance with the collapse writing	the report is clear, but the writing not enough sequential	report clear, can understood, written coherently
2- 12	<i>Completeness content related papers analysis And case/assignment discussion solutions</i>	Incomplete report submitted analysis and solution case/assignment discussion	The report fully conveys the analysis and solutions to the case/task discussion but is presented No systematic	The report completely conveys the analysis and solutions to the case/assignment discussion. as well as presented systematically	The report completely conveys the analysis and solutions to the case/task discussion, served in a manner and added information supporters
2- 12	<i>Composition And completeness of presentation materials</i>	Incomplete presentation material And No arranged sequentially or logically	Most of the presentation material complete and arranged in a way sorted, but less logical	Most of the presentation materials are complete and well-organized. in a way sorted and logical	Material presentation complete and arranged in a sequential and logical manner
	<i>Presentation material that was delivered</i>	Material No complete and presented irrelevantly	Material Which delivered in full and relevant but presented in an unattractive manner	Material Which delivered in full And relevant and served with interesting	The material presented is complete and relevant and presented with interesting and systematic

	<i>Mastery presentation materials</i>	Presenter No/ Most of them do not master the presentation material that is delivered	Presenter master some of the presentation material delivered	The presenter masters the material presentation that was delivered	The presenter masters the presentation material Which delivered and able to relate with information which is relevant
	<i>Ability answer questions</i>	Presenter No able to answer audience questions	Presenter answering audience questions poorly	The presenter is able to answer audience questions well	Presenter capable answer audience questions very well

	<i>Ability presentation</i>	Presentation delivered with no/less interesting	Presentation delivered quite interestingly	Presentation delivered in an interesting way	Presentation delivered with very interesting
	<i>Speed And clarity of material delivery</i>	The material is delivered with tempo fast and the pronunciation is not clear	The material is delivered at a fast pace with clear pronunciation	The material is delivered with tempo appropriate and the pronunciation is not clear	Material delivered at the right tempo with clear pronunciation

Rubric Evaluation Performance Individual in in Team					
Number :					
Name/BP No. Member:					
1					
2					
3					
4					
5					
Achievements Learning Eye Studying Which diases (Sub- CPMK)					
1. Student capable explain understanding And room scope knowledge livestock reproduction 2. Student capable explain And describe anatomy And function organ reproduction male cattle 3. Student capable explain And describe anatomy And function organ reproduction cattle female 4. Student capable explain And describe anatomy And function hypothalamus & pituitary gland 5. Student capable explain understanding And types hormone reproduction 6. Student able to explain puberty and behavior sex 7. Student capable explain the role cycle estrus 8. Student capable explain gametogenesis 9. Student capable explain process fertilization 10. Student capable explain process pregnancy 11. Student capable explain process birth 12. Student capable explain process puerpureum					
Eye Studying : PT137 Knowledge Reproduction Cattle					
Sub CP-	Criteria	(45- 49)	(50- 59)	(60- 74)	(75-100)

MK		<i>Inferior</i>	<i>average</i>	<i>Good</i>	<i>Excellent</i>
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2- 12	<i>Accept input, share information, and listen to other team members (colleagues)</i>	Team members are less willing to accept input, share information and listen. member other teams	Team members are willing to accept input, share information and listen. member other teams	Team members well receive input, share information and listen member other teams	Member team with Very good receive input, share information and listen member other teams
	<i>Settlement work according to the set schedule</i>	Team members are always late in completing work task Which given	Team members are often late in completing tasks. task Which given	Team members are rarely late in completing tasks. task Which given	Team members are always on time in complete the assigned tasks
	<i>Participation in work with full responsibility</i>	Team members did not participate in work	Team members participate in the work but not with full not quite enough answer	Member team participate in work with full responsibility	Member team participate fully in work not quite enough answer and dedicated
	<i>Response to every other team member</i>	Team members are less responsive to other team members in work	Team members simply respond to other team members in work	Team members respond with Good member other teams in work	Team members responded very well to team members other in work
2- 12	<i>Presence Individual</i>	12 meetings	13 meetings	14 meetings	15-16 meetings