A. Graduate Profile

a. Graduate Profile

Graduate of the Animal Science study program, Faculty of Agriculture, Mulawarman University expected to work as a Business Practitioner, researcher, manager consultant, and communicator in the livestock sector.

b. Program Educational Objectives (PEO) Description

PEO	Description
PEO -1	**Business Practitioner in the Animal Science Sector** Individuals or groups involved in various aspects of livestock-related businesses with a purpose commercial.
PEO -2	**Researchers, Academics, and Educators** Competent in developing animal science science through education, teaching, and devotion
PEO -3	**Manager and consultant in the livestock sector** Individuals who have an essential role in managing operations farms and provide valuable advice to owners or livestock manager
PEO -4	**Extension officer in the field of animal science** The individual responsible for providing the information, training, and advice to breeders or livestock communities and has a vital role in helping farmers improve knowledge and skills and adopt best practices in animal science

c. PEO Indicators

PEO	Indicator
PEO -1	1. Have an entrepreneurial spirit that can support business animal science 2. Has a high adaptability to changes in the business climate in the livestock sector 3. Having business ethics in the livestock sector
PEO -2	1. Able to design and carry out research 2. Have the ability to identify, analyze, synthesize, and formulate internal problems in the field of animal science. 3. Can express research results in the in-depth form of a scientific report.
PEO -3	1. Have creative, innovative, and managerial skills responsive to changes in the livestock business. 2. Has the ability to collaborate with various groups to develop a livestock business 3. Have the ability to communicate in writing and verbally well 4. Have scientific skills in formulating, analyzing, solve problems in the field of livestock and providing appropriate recommendations
PEO -4	1. Have the ability to communicate verbally well and convey the message of improving the welfare of livestock farmers.

	2. I can think analytically and systematically and act as a mediator, motivator, and facilitator in improving the skills of livestock farmers. 3. Has the ability to communicate with various people stakeholders in the context of the development of a farm

B. Graduate Learning Outcome (CPL)

Number of items 8 – 15

CPL code	Description
S1	Have faith in God Almighty and uphold the values of humanity by carrying out duties based on religion, morals, and ethics.
S2	Contribute to improving the quality of life in society, nation, state, love of the homeland, nationalism, culture, views, religion, law-abiding, and progress of civilization based on Pancasila and has social sensitivity and concern for society and environment.
S3	Demonstrate a responsible attitude toward work with independent expertise, academic norms, and ethics.
KU1	Able to apply logical, critical, systematic, and innovative thinking in the context of science development or implementation knowledge and technology that pays attention to and applies humanities values appropriate to the field of his expertise
KU2	Able to study the implications of the development or implementation of science and technology that pays attention to and apply humanities values according to their expertise based on scientific rules, procedures, and ethics to produce solutions, ideas, designs, or art criticism, compose scientific description of the results of the study in the form of a thesis or final assignment report, and upload it to the page College
KU3	He can make appropriate decisions in context, solve problems in his area of expertise based on results, analyze information and data, and document, store, and secure data to ensure validity and prevent plagiarism.
P1	Mastering science and technology, applying science and technology, following the development of science and technology, basic animal science skills, and providing solutions to problems in the livestock sector
P2	Able to develop livestock resources based on local wisdom
P3	Able to work together in a team, adapt to the environment work, and utilize or use ICT (Technology Information and Communication)
KK1	Able to carry out planning, development, research, and innovation in the field of animal science in a rainforest environment and humid tropics

KK2	Able to carry out livestock business analysis at the level of microeconomics and macroeconomics and apply rules and principles of entrepreneurship
KK3	Able to apply Internet of Things (IoT) technology and utilize big data for decision-making

Graduate Learning Outcomes		**Program Education Outcomes (PEO)**			
		PEO 1	**PEO 2**	**PEO 3**	**PEO 4**
1	S1	V	V	V	V
2	S2		V		V
3	S3	V	V	V	V
4	KU1	V	V	V	V
5	KU2		V		
6	KU3	V	V	V	
7	P1	V	V	V	V
8	P2	V	V	V	V
9	P3			V	V
10	KK1	V	V	V	
11	KK2	V		V	
12	KK3			V	V

C. *Curriculum Structure*

The Study Program Curriculum Structure must contain the following elements:

a. Character Strengthening Course;
b. Courses in related study program fields;
c. Cross-field courses in 1 (one) scientific field;
d. Cross-disciplinary cross-group courses;

Table 1. Curriculum Structure of the Animal Science Study Program

No	Course Code	Course	Element Categories (a,b,c,d)	SKS		
				Friday	Lec	Prac
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
SEMESTER 3 (MANDATORY COURSE)						
1	220305633W001	Animal Science	(a,b,c,d)	3	2	1
2	220305633W002	Animal Nutrition Science		3	2	1
3	220305633W003	Basics of Livestock Product Technology		3	2	1
4	220305633W004	Beef and Work Animal Science		3	2	1
5	220305633W005	Poultry Science		3	2	1
6	220305633W006	Dairy Science		3	2	1
7	220305633W007	Animal Health Science		3	2	1
8	220305633W008	Animal Reproduction Science		3	2	1
Sub-Amount				**24**	**16**	**8**

No	Course Code	Course	Element Categories (a,b,c,d)	SKS		
				Friday	Lec	Prac
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
SEMESTER 4 (MANDATORY COURSE)						
1	220305642W001	Feed Ingredients and Formulation Rations		3	2	1
2	220305642W002	Food and Nutrition of Livestock products		2	2	0
3	220305643W003	Statistics and Experimental Design		3	2	1
4	220305643W004	Research Methodology		3	2	1
5	220305642W005	Animal Breeding Science		2	2	0
6	220305642W006	Safety of Livestock Food		2	2	0

7	220305642W007	Marketing and Trading of Livestock	(a,b,c,d)	2	2	0
8	220305642W008	Livestock Policy and Legislation		2	2	0
9	220305643W009	Feasibility Study and Project Evaluation		3	2	1
10	220305643W010	Abattoir and Slaughtering Techniques		2	1	1
Sub-Amount				**24**	**19**	**5**

No	Course Code	Course	Element Categories (a,b,c,d)	SKS		
				Friday	Lec	Prac
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
SEMESTER 5 (MANDATORY COURSE)						
1	220305653W001	Pasture Management	(b,c)	3	2	1
Elective Courses						
1	220305653P001	Meat Science and Technology	(a,b,c,d)	2	1	1
2	220305653P002	Science of Milk and Egg Technology		2	1	1
3	220305653P003	Economics of Livestock Production		2	1	1
4	220305652P004	Animal Behavior and Animal Welfare		2	2	0
5	220305652P005	Industrial Development Livestock Products		2	2	0
6	220305653P006	Poultry Production		2	1	1
7	220305653P007	Beef Livestock Production		3	2	1
8	220305652P008	Feedlot Management		2	2	0
9	220305652P009	Livestock Integration System in Agricultural land		2	2	0
10	220305653P010	Artificial Insemination		2	1	1
11	220305652P011	Animal Medicine Knowledge		2	2	0
12	220305652P012	Livestock business		2	2	0
13	220305653P013	Poultry and Non-Ruminant Nutrition		2	1	1
Sub-Amount				**30**	**22**	**8**

No	Course Code	Course	Element Categories (a,b,c,d)	SKS		
				Friday	Lec	Prac
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
SEMESTER 6 (ELECTIVE COURSES)						
1	220305662P01	Livestock Waste Management	(a,b,c,d)	2	1	1
2	220305663P02	Feed Technology		3	2	1
3	220305662P03	Various Livestock		2	2	0
4	220305663P04	Poultry Breeding		2	1	1
5	220305663P05	Leather Science and Technology		2	1	1
6	220305662P06	Rural Sociology		2	2	0
7	220305662P07	Farm Engineering		2	2	0
8	220305662P08	Livestock Management in Post Mining Land		2	2	0
9	220305662P09	Animal Biotechnology		2	2	0
10	220305662P10	Development Counseling and Communication Farm		2	2	0
11	220305663P011	Ruminant Nutrition		2	1	1
12	220305662P012	Animal Genetic Resources Local		2	2	0
13		Freeform MBKM		20	0	20
14		Independent Study		4	0	4
Sub-Amount				**49**	**20**	**29**

No	Course Code	Course	Element Categories (a,b,c,d)	SKS		
				Friday	Lec	Prac
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
SEMESTER 7-8 (MANDATORY COURSE)						
1	MU0000603W007	Community Service Program	(a,b,c,d)	3	0	3
2	220305672W002	Field Work Practice		2	0	2
3	220305672W003	Seminar		2	0	2
4	220305676W004	Thesis		6	0	6
Sub-Amount				**13**	**0**	**13**

Compulsory Courses = 108 credits

Elective Courses	= 36 credits
Minimum total credits	= 144 credits
Elective courses available	= 76 Total number of courses = 66

Curriculum Map

Course Name	Attitude										Knowledge							General Skills									Specific Skills									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	10
Semester 1																																				
Religion	x	x													x														x							
Pancasila		x	x	x												x	x		x													x				
Indonesian			x	x										x	x			x										x								
Social Sciences and Basic Culture		x			x	x										x	x		x								x	x								
Introduction to Humid Tropical Agriculture						x			x		x	x						x		x							x	x								
Biology				x		x					x						x							x		x	x								x		
Introduction to Animal Science								x	x		x	x			x							x						x								
Applied Mathematics									x	x			x					x				x						x								x
Internet of Things				x				x		x				x	x	x		x						x	x	x		x							x	x
Semester 2																																				
Citizenship			x	x										x		x				x			x					x								
Basics Agribusiness Management and Entrepreneurship									x	x						x	x		x					x	x	x	x	x	x	x	x	x	x			
Basic Genetics									x		x				x		x														x					
English			x												x						x				x								x			
Biochemistry				x				x	x		x				x			x			x										x					x
Animal Anatomy and Physiology			x								x										x										x					
General Microbiology					x				x		x	x						x	x									x				x				
Statistics and Experimental Design			x	x				x	x					x	x	x		x	x					x	x	x		x			x	x	x	x		x
Semester 3																																				
Livestrock Monitoring Science					x	x						x			x	x					x		x				x		x					x		
Animal Nutrition Science					x	x			x		x		x		x					x		x									x	x				
Basic Livestock Product Technology									x		x		x		x			x			x	x					x		x							
Science of Beef and Working Livestock							x		x							x	x	x				x	x											x		
Poultry Science									x	x		x	x			x	x		x			x	x					x	x		x		x			
Dairy Science			x								x				x	x				x								x			x		x			
Livestock Health Science			x										x		x			x		x											x		x			
Livestock Reproduction Science			x						x		x		x		x			x		x								x			x		x			
Semester 4																																				
Forage Crop Science						x			x			x	x				x	x		x		x	x								x	x				
Feed Ingredients and Formulation Ration								x	x	x			x	x	x	x				x		x	x							x				x	x	

Research Methodology		x			x								x	x	x				x		x					x					x	x	x	x		
Science of Livestock Breeding					x				x		x	x	x			x	x			x		x						x		x			x			
Food and Nutrition of Livestock Product		x				x					x	x			x			x				x						x								
Livestock Food Safety		x						x										x			x							x			x		x			
Livestoc Marketing and Trading									x	x		x	x		x	x	x		x				x		x				x		x				x	x
Livestock Policies and Legislation			x	x			x						x					x		x				x			x									
Feasibility Studies and Project Evaluation			x						x	x			x	x		x	x		x				x	x	x		x	x	x	x	x					x
Abattoir and Slaughtering Techniques			x	x							x		x		x						x	x								x	x	x				
Semester 5																																				
Pasture Management						x		x	x	x					x	x	x		x	x		x					x			x						
Meat Science and Technology			x									x	x									x					x		x	x			x	x		
Science of milk and egg technology			x									x										x					x		x	x			x	x		
Economics of Livestock Production									x	x			x			x	x		x			x			x		x		x				x			x
Animal Behavior and Animal Welfare					x	x							x	x						x				x				x								x
Development of Livestock Products Industry						x						x	x									x		x			x			x			x	x		
Poultry Production									x	x	x		x		x	x			x			x							x		x				x	
Beef Livestock Production					x				x	x			x				x		x			x					x		x						x	
Feedlot Management					x					x			x	x								x	x				x				x				x	
Livestock Integration System on Agricultural Land					x	x				x					x	x	x					x		x			x			x						
Artificial Insemination		x		x					x				x		x	x				x		x						x			x		x			
Knowledge of Livestrock Medicine		x				x			x						x	x	x	x		x								x			x		x	x		
Livestock Business									x	x			x			x	x					x	x						x	x			x		x	x
Poultry and Non-Ruminant Nutrition									x	x			x		x		x		x			x						x	x				x		x	
Semester 6																																				
Livestock Waste Management		x				x						x										x											x			
Feed Technology								x	x	x			x	x	x			x		x								x				x				
Various Livestock					x					x					x		x	x				x					x							x		
Poultry Breeding									x	x			x		x		x		x			x						x	x				x			
Leather Sciece and Technology		x										x										x					x		x	x				x		
Rural Sosiology			x	x	x				x	x						x	x					x	x					x				x		x		
Farm Enginering		x	x	x									x		x		x			x				x							x		x			
Livestock Management on Ex-Mining Land						x			x	x		x	x				x				x				x			x		x						
Livestock Biotechnology						x			x		x		x		x					x		x					x	x					x	x		
Local Livestock Genetic			x	x									x		x	x				x		x			x		x			x			x			

Resources																																				
Livestock Enviromental Science						x		x			x			x				x	x								x			x						
Extension and communication for livestock defelopment			x	x	x				x	x						x	x					x	x					x						x		
Ruminant Nutrition						x			x				x	x		x	x			x				x			x						x		x	
Independent Study						x	x	x	x	x	x	x	x									x	x			x							x		x	x
Semester 7-8																																				
Community Service Program	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x		x		x		x				x	x	x							
Field Work Practice				x		x			x	x		x	x			x			x			x			x					x						x
Seminar					x				x				x						x															x		
Skripsi								x	x									x	x					x				x			x	x	x	x	x	x

Notes : To determine the check mark (X), the course selected is the one with the highest level in supporting the achievement of CPL.