

## **SEMESTER COURSE PLAN (SCP)**

### **STATISTICS FOR LIVESTOCK (23101110102)**



#### **TEAM OF TEACHERS**

Prof. Dr. Ir. Sudirman Baco, M.Sc.  
196412311989031025

Prof. Dr. Ir. Lellah Rahim, M.Sc., IPU, ASEAN Eng.  
196305011988031004

Prof. Dr. Ir. Asmuddin Natsir, M.Sc.  
195909171985031003

Prof. Dr. Ir. Raden Roro Sri R.A. Bugiwati, M.Sc.  
196804251994032002

Prof. Dr. Ir. A. Amidah Amrawaty, S.Pt., M.Si., IPM.  
197208302000122001

Dr. Ir. Jamila, S.Pt., M.Si., IPM.  
197505112003122003

Dr. Kasmiyati Kasim, S.Pt., M.Si.  
197307192006042012

**BACHELOR PROGRAMME IN ANIMAL HUSBANDRY  
FACULTY OF ANIMAL SCIENCE  
HASANUDDIN UNIVERSITY  
MAKASSAR  
2025**

**BACHELOR PROGRAMME IN ANIMAL HUSBANDRY  
FACULTY OF ANIMAL SCIENCE  
HASANUDDIN UNIVERSITY**

**Visi**

Vision of the Study Program:

“Becoming an international standard in livestock education provider based on the Indonesian Maritime Continent”

**Program Educational Objectives (PEO)**

- a) Improving the quality of learning implementation that is in line with the needs of industry and society based on research and international standards;
- b) Creating networks and partnerships in the development of Animal Husbandry science and technology and its utilization in the implementation of learning;
- c) Producing graduates who have character, vision, creativity and innovation in the field of animal husbandry science and technology with an entrepreneurial perspective.

**Mission of the Study Program**

- a) Organizing quality learning to produce independent and globally competitive Animal Husbandry scholars.
- b) Developing animal husbandry science for the benefit of the nation.
- c) Providing a conducive academic climate for implementing education with an entrepreneurial perspective.

**Graduate Profile**

No	Profil	Deskripsi
1	Manager	Graduates who apply concepts and techniques in managing livestock farming and institutions related to livestock businesses such as financial institutions
2.	Young Researcher	Graduates who able to apply scientific concepts and methods in solving problems in the development of the field of Animal Husbandry
3.	Planners	Graduates who able to prepare potential and problem analysis, as well as formulate plans and strategies for the development of the livestock and related industries
4.	Educators	Graduates who have the ability and skills to transfer science and technology to students in the field of animal husbandry
5.	Entrepreneur	Graduates who able to apply business in the field of Animal Husbandry as their main business, or business development to support livestock business
6	Bureaucrat	Graduates who are able to organize government duties, especially in the affairs of livestock development

**ILO charged to Course**

ILO-5 (KU2) - Able to make appropriate decisions in the context of problem solving, based on the results of data and information analysis (GS-02)

**Course Learning Outcomes (CLO)**

CLO-1: Able to analyze data on animal husbandry statistics and statistics (ILO-5)

**Sub-CLO**

Sub-CLO 1: Express the basic concepts of statistical data and statistics (CLO-1)

Sub-CLO 2: Present data in the form of frequency distribution lists and graphs (CLO-1)

Sub-CLO 3: Perform animal husbandry data analysis (CLO-1)

Sub CLO-4: Use animal husbandry data analysis methods (CLO-1)

# Learning Analysis

Animal Husbandry Statistics



Using animal husbandry data analysis methods (CLO-1)



Perform animal husbandry data analysis (CLO-1)



Presenting data in the form of frequency distribution lists and graphs (CLO-1)



Express the basic concepts of statistical data and statistics (CLO-1)

---



**HASANUDDIN UNIVERSITY**  
**FAKULTY OF ANIMAL SCIENCE**  
**BACHELOR PROGRAMME IN ANIMAL HUSBANDRY**  
**SEMESTER LEARNING PLAN**

Course	Code	Course Group	Credits	SEMESTER	Completion Date
Statistics for Livestock	23I01110102	None	2	1	None
<b>AUTHORITY</b>	<b>SCP Development Lecturer</b>		<b>Coordinator</b>		<b>Head of study program</b>
	Prof. Dr. Ir. Sudirman Baco, M.Sc., Prof. Dr. Ir. Lellah Rahim, M.Sc., IPU, ASEAN Eng., Prof. Dr. Ir. Asmuddin Natsir, M.Sc., Prof. Dr. Ir. Raden Roro Sri R.A. Bugiwati, M.Sc., Dr. Ir. A. Amidah Amrawaty, S.Pt., M.Si., IPM., Dr. Ir. Jamila, S.Pt., M.Si., IPM, Dr. Kasmiyati Kasim, S.Pt., M.Si.		Prof. Dr. Ir. Lellah Rahim, M.Sc., IPU, ASEAN Eng.		Dr. Agr. Ir. Renny Fatmyah Utamy, S. Pt., M. Agr., IPM
<b>Course Learning Outcomes</b>	<b>ILO that are imposed on the course</b>				
	<b>ILO-5:</b>	Able to make appropriate decisions in the context of problem solving, based on the results of data and information analysis (GS-02)			
	<b>ILO ⇒ Course Learning Outcomes (CLO)</b>				
	Upon completion of this course, it is expected that:				
	<b>ILO-5</b>	<b>ILO-1:</b> Able to analyze statistical data and animal husbandry statistics			
	<b>ELO ⇒ Sub-CLOs</b>				
	<b>ILO-1</b>	<b>SUB-CLOCK-1:</b> Disclose the basic concepts of statistical data and statistics			
		<b>SUB-CLOCK-2:</b> Presenting data in the form of frequency distribution lists and graphs			
<b>SUB-CLOCK-3:</b> Perform animal husbandry data analysis					
<b>SUB-CLO-4:</b> Use animal husbandry data analysis methods					
<b>Correlation between ILO/CLO to Sub-CLO</b>					

ILO that are charged on the course	CLO	SUB-CLO	Form of Assessment*					Weight	Value	Student Score
			Formative	Summative						
				Interactive Lecture	Quiz	Individual Paper Assignment	Problem Base Learning			
ILO-5	CLO-1	SUB-CLO-1		10	5	0	0	0	15	
ILO-5	CLO-1	SUB-CLO-2		5	0	5	10	0	20	
ILO-5	CLO-1	SUB-CLO-4		10	0	10	0	45	65	
				25	5	15	10	45	100	

<b>Course Description</b>	This course discusses the basic concepts of statistical data and statistics, data presentation, animal husbandry data analysis and animal husbandry data analysis methods.
---------------------------	--

<b>Learning Materials / Subjects</b>	Basic concepts of statistical data and statistics, presentation of data in the form of frequency distribution lists and graphs, analysis of livestock data and methods of analyzing livestock data (regression and correlation, chi squared and sign test).
--------------------------------------	---

<b>Reference</b>	<b>Main Reference</b>
	<ol style="list-style-type: none"> <li>Sudjana, 1996. Statistical Methods. Ed. 6. Tarsito Bandung</li> <li>Steel, R.G.D., and Torrie, J.H. 1980. Principles and Procedures of Statistics. Mc Graw Hill, Kogakusha, Ltd. Tokyo.</li> <li>Siegel, S. 1997. Nonparametric Statistics for the Social Sciences. Gramedia, Jakarta.</li> </ol>
	<b>Additional References</b>
	<ol style="list-style-type: none"> <li>Tiro, M.A, 1999. Basics of Statistics. State University of Makassar Press.</li> <li>Dajan, A. 1983. Introduction to Statistical Methods 8th Edition. Institute for Economic and Social Research, Education and Information (LP3ES), Jakarta.</li> </ol>

<b>Teaching Team</b>	Prof. Dr. Ir. Sudirman Baco, M.Sc., Prof. Dr. Ir. Lellah Rahim, M.Sc., IPU, ASEAN Eng., Prof. Dr. Ir. Asmuddin Natsir, M.Sc., Prof. Dr. Ir. Raden Roro Sri R.A. Bugiwati, M.Sc., Dr. Dr. Ir. Amidah Amr. Dr. Ir. A. Amidah Amrawaty, S.Pt., M.Si., IPM., Dr. Ir. Jamila, S.Pt., M.Si., IPM., Dr. Kasmiyati Kasim, S.Pt., M.Si.
----------------------	---

<b>Course requirements</b>	
----------------------------	--

Week	Sub CLO (End-of-stage learning ability)	Assessment		Forms and Methods of Learning [estimated time] (Learning Method)		Learning Material (Content)	Assessment Weight (%)
		Indicator	Techniques & Criteria	Offline System	Online System		
1	2	3	4	5	6	7	8

1	Introduce the basic concepts of statistical data and statistics (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Summative:</b></p> <p>Individual paper assignment</p>	<p><b>Formative Criteria:</b></p> <p><b>Summative Criteria:</b></p> <p>Interactive Lecture (5)</p> <p><b>Assessment Techniques:</b></p> <p>None</p>	<p><b>Studying:</b></p> <p>Cooperative learning</p> <p>4 x 2 x 50'</p>	<p><b>Other Forms:</b></p> <p>Other Methods</p> <p>-</p> <p>0</p>	<ul style="list-style-type: none"> <li>- The role of statistical data</li> <li>- Definition of statistics and statistics</li> <li>- Discrete and continuous data</li> <li>- Population and sample</li> <li>- Chance and rule of chance</li> <li>- sampling and sampling methods</li> <li>- hypothesis (1 and 2)</li> </ul>	5
2-5	Present the basic concepts of statistical data and statistics (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Summative:</b></p> <p>Accuracy of data and graph presentation stages</p>	<p><b>Formative Criteria:</b></p> <p><b>Summative Criteria:</b></p> <p>Interactive Lecture (5)</p> <p>Quiz (5)</p> <p><b>Assessment Technique:</b></p> <p>None</p>	<p><b>Studying:</b></p> <p>Cooperative learning</p> <p>2 x 2 x 50'</p>	<p><b>Studying:</b></p> <p>Other methods</p> <p>-</p> <p>0</p>	<ul style="list-style-type: none"> <li>- Lists and charts</li> <li>- Frequency distribution</li> <li>- Frequency histograms and polygons (1 and 2)</li> </ul>	10
6-7	Perform data presentation in the form of frequency distribution lists and graphs (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Summative:</b></p> <p>Accuracy of stages and results of analysis</p>	<p><b>Formative criteria:</b></p> <p><b>Summative criteria:</b></p> <p>Interactive Lecture (5)</p> <p>Individual Paper Assignment (5) assessed by rubric I011240003</p> <p>Problem Base Learning (10) assessed with rubric I011240003</p> <p><b>Assessment Technique:</b></p> <p>None</p>	<p><b>Studying:</b></p> <p>Cooperative learning</p> <p>5 x 2 x 50'</p>		<ul style="list-style-type: none"> <li>- Mean calculation</li> <li>- Mode, median and standard deviation</li> <li>- Binomial, multinomial and normal distributions</li> <li>- <b>Odds and Rules of Chance</b></li> <li>- Mean, proportion and standard deviation distributions</li> <li>- One-party, two-party and variance tests (1 and 2)</li> </ul>	20

8-12	Use methods to analyze livestock data (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Sumative:</b></p> <p>Accuracy of description and answers</p>	<p><b>Formative criteria:</b></p> <p><b>Summative criteria:</b></p> <p>Interactive Lecture (5)</p> <p>Individual Paper Assignment (5) assessed with rubric I011240003</p> <p>Case Study (20) assessed with rubric I011240003</p> <p><b>Assessment Technique:</b></p> <p>None</p>	<p><b>Studying :</b></p> <p>Cooperative learning</p> <p>4 x 2 x 50'</p>	<p><b>Studying:</b></p> <p>Other methods</p> <p>-</p> <p>0</p>	<p>- Simple regression and correlation</p> <p>- Chi-square test</p> <p>- Sign test (1, 2 and 3)</p>	30
13-16	Use animal husbandry data analysis methods (CLO-1)	<p><b>Formative:</b></p> <p>-</p> <p><b>Sumative:</b></p> <p>Accuracy of description and answers</p>	<p><b>Formative criteria:</b></p> <p><b>Summative criteria:</b></p> <p>Interactive Lecture (5)</p> <p>Individual Paper Assignment (5) assessed with rubric I011240003</p> <p>Case Study (25) assessed with rubric I011240003</p> <p><b>Assessment Technique:</b></p> <p>None</p>	<p><b>Studying:</b></p> <p>Cooperative learning (Cooperative learning None</p> <p>4 x 2 x 50'</p>	<p><b>Studying:</b></p> <p>Other methods None</p> <p>0</p>	<p>- Simple regression and correlation</p> <p>- Chi square test</p> <p>- Sign test (1, 2 and 3)</p>	35
							100

**Matrix of ILO, CLO, and Assessment Method**

ILO / CLO	CLO-1
ILO-5 (KU2)	Interactive Lecture (Weight 10%) Quiz (Weight 5%) Interactive Lecture (Weight 5%) Individual Paper Assignment (Weight 5%) Problem Base Learning (Weight 10%) Interactive Lecture (Weight 10%) Individual Paper Assignment (Weight 10%) Case Study (Weight 45%)

### Evaluation Type and Assessment Weight

Type	Assessment Weight
Interactive Lecture	25
Quiz	5
Individual Paper Assignment	15
Problem Base Learning	10
Case Study	45
Total	100

**Assessment and Evaluation of Student Achievement of CLO**

ILO that are charged on the Course	CLO	SUB CLO	Form of Assessment*						Weight	Value	Student Score
			Formative	Summative							
				Interactive Lecture	Quiz	Individual Paper Assignment	Problem Base Learning	Case Study			
ILO-5	CLO-1	SUB-CLO- 1		10	5	0	0	0	15		
ILO-5	CLO-1	SUB-CLO- 2		5	0	5	10	0	20		
ILO-5	CLO-1	SUB-CLO- 4		10	0	10	0	45	65		
				25	5	15	10	45	100		



**HASANUDDIN UNIVERSITY  
FACULTY OF ANIMAL SCIENCE  
BACHELOR DEGREE IN ANIMAL HUSBANDRY**

**STUDENT STRUCTURED ASSIGNMENT PLAN**

<b>Course</b>	Statistics for Livestock				
<b>Code</b>	23101110102	<b>Credits</b>	2	<b>Semester</b>	1 (satu)
<b>Developer Lecturer</b>	Prof. Dr. Ir. Lellah Rahim, M.Sc., IPU, ASEAN Eng.				
<b>Task Form</b>	<b>Task Time</b>				
Documents/Magazines	2 Weeks				
<b>Task Title</b>					
Definition and role of statistics, discrete and continuous data, population and sample, probability and rules of chance, and sampling and sampling methods.					
<b>Course Learning Outcomes</b>					
Sub-CLO 1: Express the basic concepts of statistical data and statistics (CLO-1)					
<b>Task Description</b>					
<p>The student's assignment is a group task to make a Paper Assignment " Make a paper on statistics and statistics. The preparation of the paper follows the following procedure:</p> <ol style="list-style-type: none"> <li>1) Each group chooses 1 of the sub-topics for 1 group; Definition and role of statistics, discrete and continuous data, population and sample, probability and rules of probability, and sampling and sampling methods.</li> <li>2) Discuss among the group members to identify the process stages for each of the selected sub-topics. Information related to the selected sub-topic can be obtained from textbooks and journals.</li> <li>3) Create a paper with the following systematics:             <ol style="list-style-type: none"> <li>I. Introduction</li> <li>II. Discussion</li> <li>III. Conclusion</li> <li>IV. Literature</li> </ol> </li> <li>4) Group presentation</li> </ol>					
<b>Assignment Method</b>					
1. Conducted in groups using the Small Group Discussion (SGD) learning method.					
<b>Form and Format of Output</b>					
a. Object of Cultivation: Definitions and statistical models b. Form of Output: Paper					
<b>Indicators, Criteria and Assessment Weight</b>					
<p><b>Indicators:</b></p> <ol style="list-style-type: none"> <li>1. Systematics: 10%</li> <li>2. Accuracy of analysis: 25%</li> <li>3. Depth of material: 30%</li> <li>4. Novelty and reputation of library materials: 10%</li> <li>5. Team cohesiveness: 10%</li> <li>6. Mastery of the material: 15%</li> </ol>					
<b>Implementation Schedule</b>					
2 weeks					
<b>Other</b>					
-					

Reference List	
1.	Sudjana, 1996. Metoda Statistika. Ed. 6. Tarsito Bandung
2.	Steel, R.G.D., and Torrie, J. H. 1980. Principles and Procedures of Statistics. Mc Graw Hill, Kogakusha, Ltd. Tokyo.
3.	Siegel, S. 1997. Statistik Nonparametrik untuk Ilmu-Ilmu Sosial. Gramedia, Jakarta.
4.	Tiro, M.A, 1999. Dasar-dasar Statistika. Edisi 1. State University of Makassar Press.
5.	Dajan, A. 1983. Pengantar Metode Statistik Edisi 8. Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Sosial (LP3ES), Jakarta

DEFINITION OF 1 CREDIT IN THE FORM OF LEARNING				Time
A	Lecture, Reception, Tutorial			
	Face to Face	Structured Assignment	Independent Learning	
	50 minutes/week/semester	60 minutes/week/semester	60 minutes/week/semester	2,83
B	Seminars or other similar forms of learning			
	Face to face		Self-study	
	100 minutes/week/semester		70 minutes/week/semester	2,83
C	Practicum, studio practice, workshop practice, field practice, research, community service, and/or other equivalent forms of learning			
	170 minutes/week/semester			2,83

No	Metode Pembelajaran Mahasiswa	Kode
1	Small Group Discussion	SGD
2	Role-Play & Simulation	RPS
3	Discovery Learning	DL
4	Self-Directed Learning	SDL
5	Cooperative Learning	CoL
6	Collaborative Learning	CbL
7	Contextual Learning	CtL
8	Project Based Learning	PjBL
9	Problem Based Learning & Inquiry	PBL
10	Atau metode pembelajaran lain, yang dapat secara efektif memfasilitasi pemenuhan capaian pembelajaran lulusan.	

**Appendix Rubric I011240003| Paper assessment**

[https://drive.google.com/file/d/1PFo5\\_f-uXO6NQsF-rG8p6PMZUDoUI6Q9/view?usp=sharing](https://drive.google.com/file/d/1PFo5_f-uXO6NQsF-rG8p6PMZUDoUI6Q9/view?usp=sharing)