	Universitas Negeri Surabaya **Faculty of Sports and Health Sciences,** **Undergraduate Nutrition Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Biostatistics	1321102024		T=0	P=0	ECTS=0	3	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Amalia Ruhana, S.P., M.P.H.

Learning model	**Case Studies**
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**
	Program Objectives (PO)
	PLO-PO Matrix

	P.O

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Short Course Description	Examining the concepts of basic knowledge of statistics, population, samples, measures of data concentration, measures of location and dispersion, presentation of data in table form, presentation of data in diagram form, hypothesis testing, Z test, T test, anova, correlation and regression and the chi square test through individual and group task-based learning..
References	**Main :**
	1. Weiss, N. A. 2017. Elementary Statistics 10 th Edition . Boston: Pearson. 2. Freedman, D. 2007. Statistics . USA: Norton & Company. 3. Rosner, Bernard, 1986. Fundamental of Bioststatistics, 2nd edition, Massachussets:PWS Publishers
	Supporters:
Supporting lecturer	Dr. Rini Setianingsih, M.Kes. Noor Rohmah Mayasari, Ph.D. Danang Ariyanto, S.Si., M.Si. Dimas Avian Maulana, S.Si., M.Si.

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline (*offline*)	Online (*online*)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

1	Students can understand the meaning of statistics, population and sample	Explain basic knowledge of statistics, population and samples. Apply basic knowledge of statistics, populations and samples in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
2	Students can understand the meaning of data concentration, location and dispersion measures	Explaining knowledge of measures of data concentration, location and dispersion. Applying knowledge of measures of centralization in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
3	Students can understand the meaning of data presentation	· Explain knowledge about tables · Explain knowledge about histograms on raw data · Explain knowledge about boxplots Apply knowledge of data presentation in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
4	Students can understand the meaning of procedures in inferential statistics	· Explain knowledge about initial hypothesis · Explain knowledge about significant level · Explain knowledge about criteria for rejecting initial hypothesis · Explain knowledge about P value		3 X 50			0%
5	Students can understand the meaning of procedures in inferential statistics	· Apply knowledge of procedures in inferential statistics in everyday life.		3 X 50			0%

6	Students can understand the meaning of one and two sample Z tests	· Explain knowledge about the one sample Z test · Apply knowledge of the one sample Z test in everyday life. · Explain knowledge about the two-sample Z test for independent data · Apply knowledge of the two-sample Z test for independent data in everyday life. · Explain knowledge about the two-sample Z test for dependent data. Apply knowledge of the two-sample Z test for dependent data in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
7	Students can understand the meaning of one and two sample T tests	· Explain knowledge about the one sample T test · Apply knowledge of the one sample T test in everyday life. · Explain knowledge about the two-sample T test for independent data · Apply knowledge of the two-sample T test for independent data in everyday life. · Explain knowledge about the two-sample T test for dependent data. · Apply knowledge of the two-sample T test for dependent data in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
8	UTS			3 X 50			0%
9	Students can understand the meaning of one-way ANOVA	· Explain knowledge about one-way anova		Learning approach with lectures and discussions 3 X 50			0%
10	Students can understand the meaning of one-way ANOVA	Applying one-way anova knowledge to dependent data in everyday life.		Learning approach with lectures and discussions 3 X 50			0%

11	Students can understand the meaning of correlation	· Explain knowledge about correlation in general · Explain knowledge about scatter plot data · Explain knowledge about calculating correlation coefficients · Explain knowledge about correlation coefficients in populations and test hypotheses · Apply knowledge of correlation to dependent data in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
12	Students can understand the meaning of linear regression	· Explain knowledge about determining independent and dependent variables · Explain the method of estimating parameters in regression		Learning approach with lectures and discussions 3 X 50			0%
13	Students can understand the meaning of linear regression	· Explain knowledge of hypothesis testing for regression coefficients · Apply knowledge of linear regression in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
14	Students can understand the meaning of one and two sample chisquare tests	· Explain knowledge about the one-sample chisquare test. · Apply knowledge of the one-sample chisquare test in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
15	Students can understand the meaning of one and two sample chisquare tests	· Explain knowledge about the two-sample chisquare test · Apply knowledge of the two-sample chisquare test in everyday life.		Learning approach with lectures and discussions 3 X 50			0%
16							0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
		0%

Notes

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
7. **Forms of assessment:** test and non-test.
8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
12. TM=Face to face, PT=Structured assignments, BM=Independent study.