	Universitas Negeri Surabaya **Faculty of Economics and Business** **Bachelor of Business Education Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Statistics	8721102135	Compulsory Study Program Subjects	T=2	P=0	ECTS=3.18	3	May 8, 2023

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	**Case Studies**

Program Learning Outcomes (PLO)

PLO study program that is charged to the course	
PLO-8	Able to demonstrate a responsible attitude for achieving work results both individually and in groups
PLO-11	Able to communicate both orally and in writing in the educational and scientific fields of Business and Marketing
PLO-12	Able to make appropriate decisions to solve problems in the educational and scientific fields in Business and Marketing based on information and data analysis by utilizing technology and information
PLO-15	Able to design and carry out research in the educational and scientific fields of Business and Marketing and communicate the results
Program Objectives (PO)	
PO - 1	CPMK 1 Capable Able to utilize ICT to search for information, arguments and critical studies related to statistics
PO - 2	CPMK 2 Able to distinguish and formulate various types, types and definitions of statistics, show, interpret and calculate frequency distributions.
PO - 3	CPMK 3 Compile, formulate and determine the preparation of frequency tables, relative frequency distribution, cumulative frequency distribution, frequency distribution graphs and frequency curves
PO - 4	CPMK 4 Identify measures of central values, calculate and interpret mode, mean, median and other measures of central values, identify and apply measures of location
PO - 5	CPMK 5 Identifying and applying measures of dispersion, identifying and applying measures of relative dispersion, Chebyshev's postulates, empirical rules and standard numbers

PLO-PO Matrix

P.O	PLO-8	PLO-11	PLO-12	PLO-15
PO-1				
PO-2				
PO-3				
PO-4				
PO-5				

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
PO-1																
PO-2																
PO-3																
PO-4																
PO-5																

Short Course Description	This course discusses studying basic statistical concepts for quantitative research. This course is a basic course supporting psychological research and measurement.
References	**Main :**
	1. Bluman Allan G. 2007. Elementary Statistics seventh edition. Mc Graw Hill 2. Michael Longnecker, 2010. An IntroductionStatistical Methods and Data Analysis. Cengage Learning 3. Santoso Singgih. 2002. Buku Latihan SPSS Statistik parametrik. Jakarta: PT. Elex Media Komputindo.
	Supporters:
Supporting lecturer	Dwi Yuli Rakhmawati, S.Si., M.Si., Ph.D. Septyan Budy Cahya, S.Pd., M.Pd.

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	Describe the meaning and function of statistics	1. Students are able to understand describing the meaning of statistics 2. Students are able to describe statistical functions 3. Students are able to describe statistical groupings based on data processing methods 4. Students are able to describe statistical groupings based on the shape of the parameters 5. Able to describe data	**Criteria:** Students can trace back memory (cognitive) regarding basic statistical concepts **Form of Assessment** : Participatory Activities	Discussion Lecture 3 X 50	Discussion Lecture 3 X 50	**Material:** 1. Understanding statistics 2. Functions of statistics 3. Grouping statistics based on data processing methods 4. Grouping statistics based on the form of parameters 5. **Library data:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	5%

2	Students understand hypothesis testing	Students are able to study, apply and analyze hypothesis testing	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Frequency Table **References:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	2%
3	Students understand hypothesis testing	Students are able to study, apply and analyze hypothesis testing	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Frequency Table **References:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	2%
4	Students understand associative statistics (correlation)	1. Able to explain the meaning of tables 2. Able to explain various tables 3. Able to explain various diagrams 4. Able to make various kinds of diagrams with the help of Ms. excel	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Tables and Diagrams **References:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	5%
5	Calculating the measure of central tendency of data frequency distribution	Able to solve problems using correlation	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Size of concentration **Reference:** *Noegroho. 2016. Introduction to Economic and Business Statistics. Yogyakarta: UPP STIM YKPN*	2%
6	Able to understand associative statistics (regression)	1. Can calculate manual mode & application in MS. Excel and SPSS 2. Can calculate median manual & application in MS. Excel and SPSS	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Size of concentration **Reference:** *Noegroho. 2016. Introduction to Economic and Business Statistics. Yogyakarta: UPP STIM YKPN*	2%

7	Able to understand associative statistics (regression)	1. Able to calculate: Percentiles, Deciles, Quartiles, Range, Quartile Range, Semi-quartile Range 2. Able to explain Standard deviation, Variance and Z score, Standard error, Qualitative Variation Index for all symptoms 3. Explain the meaning of frequency disparity measures from data	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Data deviation **Bibliography:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	5%
8	Midterm Exam	Ability to do Midterm Exam questions correctly	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Test	Written Test 2 X 50	Written Test 2 X 50	**Material:** Descriptive Statistics **Bibliography:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.* **Material:** Descriptive Statistics **Bibliography:** *Sugiyono. 2016. Statistics for Research. Bandung: Alfabeta* **Material:** Descriptive Statistics **Bibliography:** *Noegroho. 2016. Introduction to Economic and Business Statistics. Yogyakarta: UPP STIM YKPN*	20%
9	Students understand comparative statistics	1. Can calculate the size of the slope 2. Can calculate kurtosis	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Kurtosis and skewness **Reference:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	2%

10	Students understand comparative statistics	Can calculate kurtosis	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Normal Curve **Reference:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	2%
11	Students are able to understand the concept of factor analysis	Able to understand and carry out factor analysis	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lectures	**Material:** Library Index Numbers **:**	10%
12	Students are able to understand the concept of factor analysis	Able to understand and carry out factor analysis	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lectures 3 x 50	**Material:** Library Index Figures **:** *Noegroho. 2016. Introduction to Economic and Business Statistics. Yogyakarta: UPP STIM YKPN*	4%
13	Students are able to understand the concept of factor analysis	Can explain the definition of probability	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lectures 3 x 50	**Material:** Probability **References:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.*	5%
14	Students understand non-parametric statistics	Able to solve problems using non-parametric statistics	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Trend linear models **Reader:** *Sugiyono. 2016. Statistics for Research. Bandung: Alfabeta*	2%
15	Students understand non-parametric statistics	Able to solve problems using non-parametric statistics	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Participatory Activities	Practical Discussion Lecture 3 X 50	Practical Discussion Lecture 3 X 50	**Material:** Non-linear trends **Reader:** *Sugiyono. 2016. Statistics for Research. Bandung: Alfabeta*	2%

16	Final Exam	Ability to do Final Exam questions correctly	**Criteria:** Able to answer questions regarding the material **Form of Assessment** : Test	Written test 2 X 50	Written test 2 X 50	**Material:** Descriptive Statistics **Bibliography:** *Hidayatullah, Syarif. 2015. Easy Ways to Master Descriptive Statistics. Jakarta: Salemba Teknika Publisher.* **Material:** Descriptive Statistics, Probability, Time Series **Reader:** *Sugiyono. 2016. Statistics for Research. Bandung: Alfabeta* **Material:** Descriptive Statistics, Probability, Time Series **Reference:** *Noegroho. 2016. Introduction to Economic and Business Statistics. Yogyakarta: UPP STIM YKPN*	30%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	50%
2.	Test	50%
		100%

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.