



**Universitas Negeri Surabaya
Faculty of Economics and Business
Bachelor of Management Study Program**

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
STATISTICS	6120103154	Compulsory Study Program Subjects	T=3	P=0	ECTS=4.77	1	July 18, 2024
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator	
	Nunik Dwi Kusumawati, SM.,M,SM.		Trias Madanika, SE., S.Pd., MM.			Yuyun Isbanah, S.E., M.SM.	

Learning model	Project Based Learning																																																																																				
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																																																																				
	Program Objectives (PO)																																																																																				
	PO - 1	Students are able to choose descriptive statistical methods that suit the type of data to solve problems (C5)																																																																																			
	PO - 2	Students are able to correctly interpret the results of descriptive statistical data analysis (C5)																																																																																			
	PO - 3	Students are able to show intelligent, thorough and responsible character in statistics learning activities (P5)																																																																																			
	PLO-PO Matrix																																																																																				
	<table border="1" style="margin-left: 40px;"> <tr><td>P.O</td></tr> <tr><td>PO-1</td></tr> <tr><td>PO-2</td></tr> <tr><td>PO-3</td></tr> </table>	P.O	PO-1	PO-2	PO-3																																																																																
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PO Matrix at the end of each learning stage (Sub-PO)	<table border="1" style="margin-left: 40px;"> <thead> <tr> <th rowspan="2">P.O</th> <th colspan="16">Week</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th> </tr> </thead> <tbody> <tr><td>PO-1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>PO-2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>PO-3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	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																
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Short Course Description This course contains the basic concepts of descriptive statistics which include presenting data, calculating mean values and variability as well as studying confidence intervals, index numbers and time series. The learning method is lectures and questions and answers, as well as taking an inquiry approach, namely completing tasks and solving problems. This course contains basic concepts of descriptive statistics which include the presentation of data, calculation of median values and variability as well as examining the confidence interval, index numbers, and time series. Learning methods are lectures and questions and answers, as well as conducting an inquiry approach, ie task completion and problem-solving.

References

Main :

- Boedijoewono, Noegroho. 2014. Pengantar Statistika Ekonomidan Bisnis 1: Deskriptif . UPP STIM YKPN
- Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education
- Subagyo, Pangestu. 2012. Statistika Deskriptif . Yogyakarta:BPFE.
- Suharyadi & Purwanto, SK. 2015. Statistika untuk Ekonomi & Keuangan Modern (ed 3) Jilid 1 . Jakarta: Salemba Empat

Supporters:

Supporting lecturer Dr. Ulil Hartono, S.E., 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	Formulate the meaning and function of statistics	1. Able to explain the meaning of statistics 2. Able to explain types of statistics 3. Able to explain types of data in statistics		Lectures, demonstrations and questions and answers 3 X 50		Material: understanding and functions of statistics References: Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. <i>Statistical Techniques in Business and Economics, 16th Edition.</i> McGraw-Hill Education <hr/> Material: meaning and function of statistics Reader: Subagyo, Pangestu. 2012. <i>Descriptive Statistics.</i> Yogyakarta: BPFE.	0%
2	Compile data frequency distribution tables and two-way tables	1. Able to compile a frequency distribution table 2. Able to compile two-way tables	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		Material: Frequency Distribution References: Subagyo, Pangestu. 2012. <i>Descriptive Statistics.</i> Yogyakarta: BPFE. <hr/> Material: Frequency Distribution References: Suharyadi & Purwanto, SK. 2015. <i>Statistics for Modern Economics & Finance (ed 3) Volume 1.</i> Jakarta: Salemba Empat	2%

3	Describe various kinds of diagrams	Able to describe diagrams: histogram, bargraph, piechart, polygon, ogive, pictogram	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		<p>Material: diagrams in statistics References: Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. <i>Statistical Techniques in Business and Economics, 16th Edition.</i> McGraw-Hill Education</p> <p>Material: diagrams in statistics References: Subagyo, Pangestu. 2012. <i>Descriptive Statistics.</i> Yogyakarta: BPFE.</p> <p>Material: diagrams in statistics Reference: Suharyadi & Purwanto, SK. 2015. <i>Statistics for Modern Economics & Finance (ed 3) Volume 1.</i> Jakarta: Salemba Empat</p>	3%
4	Analyze measures of central tendency of data	Able to calculate and analyze mean, median, mode for group data	Criteria: Answer correctly Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		<p>Material: Central tendency Bibliography: Boedjoewono, Noegroho. 2014. <i>Introduction to Economic and Business Statistics 1: Descriptive.</i> UPP STIM YKPN</p> <p>Material: central tendency References: Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. <i>Statistical Techniques in Business and Economics, 16th Edition.</i> McGraw-Hill Education</p>	2%
5	Analyze measures of central tendency of data		Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 x 50			5%

6	Analyze measures of data dispersion	Able to calculate: Percentiles, Deciles, Quartiles, Range, Quartile Range, Semi-quartile Range	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50			5%
7	Analyze the size of the data spread	Able to calculate and analyze Z score, Standard error, Qualitative Variation Index, Standard deviation and Variance	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 x 50		Material: Measures of data dispersion References: <i>Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education</i> <hr/> Material: Size of data distribution References: <i>Suharyadi & Purwanto, SK. 2015. Statistics for Modern Economics & Finance (ed 3) Volume 1. Jakarta: Salemba Empat</i>	3%
8	MIDTERM EXAM		Form of Assessment : Test	test 3 X 50			20%
9	Analyze the shape of the normal curve	Able to calculate measurements: Curvature, Kurtosis, Normal curve area	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		Material: Normal curve References: <i>Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education</i> <hr/> Material: normal curve Reference: <i>Suharyadi & Purwanto, SK. 2015. Statistics for Modern Economics & Finance (ed 3) Volume 1. Jakarta: Salemba Empat</i>	5%

10	Analyzing parameter estimates	Able to calculate and analyze normal distribution opportunities	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		<p>Material: Parameter estimation References: <i>Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education</i></p> <hr/> <p>Material: Parameter estimation References: <i>Suharyadi & Purwanto, SK. 2015. Statistics for Modern Economics & Finance (ed 3) Volume 1. Jakarta: Salemba Empat</i></p>	5%
11	Analyzing parameter estimates	Able to calculate estimates of average and variance parameters for a population	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 x 50		<p>Material: Parameter estimation References: <i>Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education</i></p> <hr/> <p>Material: Parameter estimation References: <i>Suharyadi & Purwanto, SK. 2015. Statistics for Modern Economics & Finance (ed 3) Volume 1. Jakarta: Salemba Empat</i></p>	5%

12	Analyzing parameter estimates	Able to calculate and analyze estimates of average and variance parameters for two populations	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 x 50		<p>Material: Parameter estimation References: <i>Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education</i></p> <hr/> <p>Material: Parameter estimation References: <i>Suharyadi & Purwanto, SK. 2015. Statistics for Modern Economics & Finance (ed 3) Volume 1. Jakarta: Salemba Empat</i></p>	5%
13	Analyze different types of index numbers	Able to calculate single index, aggregate index, average index, weighted average index	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		<p>Material: Reference Index Numbers : <i>Subagyo, Pangestu. 2012. Descriptive Statistics. Yogyakarta: BPFE.</i></p> <hr/> <p>Material: Index Numbers References: <i>Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. Statistical Techniques in Business and Economics, 16th Edition. McGraw-Hill Education</i></p>	2%

14	Analyzing time series / trends	Able to compile and analyze linear trend equations	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 X 50		Material: Time series References: Subagyo, Pangestu. 2012. <i>Descriptive Statistics</i> . Yogyakarta: BPFE. <hr/> Material: Time series References: Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. <i>Statistical Techniques in Business and Economics, 16th Edition</i> . McGraw-Hill Education	3%
15	Analyzing time series / trends	1. Able to compile and analyze non-linear trend equations 2. Able to compile and analyze seasonal trends	Form of Assessment : Participatory Activities	Lectures, demonstrations and questions and answers 3 x 50		Material: Time series References: Subagyo, Pangestu. 2012. <i>Descriptive Statistics</i> . Yogyakarta: BPFE. <hr/> Material: Time series References: Lind, Douglas A. Marchal, William G. and Wathen, Samuel A. 2016. <i>Statistical Techniques in Business and Economics, 16th Edition</i> . McGraw-Hill Education	5%
16	FINAL EXAMS		Criteria: Answer correctly Form of Assessment : Test	test 3 X 50			30%

Evaluation Percentage Recap: Project Based Learning

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

Notes

- 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.
- 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.
- Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study materials or learning materials for that course.
- 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.