	Universitas Negeri Surabaya Faculty of Social and Political Sciences, Bachelor of History Education Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Statistics	8720102223	Compulsory Study Program Subjects	T=2	P=0	ECTS=3.18	4	August 19, 2021

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	Dr. Agus Suprijono, M.Si, Riyadi, S.Pd, MA., Dinar Rizky Listyaputri, M.Pd.	Dr. Agus Suprijono, M.Si	Dr. Wisnu, M.Hum.

Learning model	**Project Based Learning**	
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**	
	PLO-8	Applying logical, critical, systematic and analytical thinking in solving history education problems with the impact of developments in science and technology
	Program Objectives (PO)	
	PO - 1	Analyze basic statistical concepts
	PO - 2	Create a basic statistical concept map
	PO - 3	Analyzing descriptive statistics
	PO - 4	Applying descriptive statistics to process data.
	PO - 5	Analyzing the concept of inferential statistics
	PO - 6	Applying inferential statistics to process data
	PO - 7	Examining data analysis techniques in processing data from quantitative research results reports
	PO - 8	Develop data processing with statistics
	PLO-PO Matrix	

P.O	PLO-8
PO-1	✔
PO-2	✔
PO-3	✔
PO-4	✔
PO-5	✔
PO-6	✔
PO-7	✔
PO-8	✔

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									✔	✔						
PO-6											✔	✔				
PO-7													✔	✔	✔	
PO-8																✔

Short Course Description	The educational statistics course provides students with knowledge and skills in order to complete final assignments in the form of theses, especially those that use a quantitative research approach along with methods for collecting data, processing or analyzing it and drawing conclusions based on the data collection and analysis carried out.
References	**Main :**

1. Arikunto, Suharsimi. 2006. Prosedur Penelitian Suatu Pendekatan Praktik . Jakarta: Rineka Cipta
2. Azwar, S. 2004. Metode Penelitian . Yogyakarta: Pustaka Pelajar
3. Bugin. 2001. Metodologi Penelitian Sosial Format-Format Kuantitatif dan Kualitatif . Surabaya: Airlangga University Press
4. Sudjana. 2001. Metode Statistika . Bandung: Tarsito
5. Sunarto. 2001. Metodologi Penelitian Ilmu-ilmu Sosial dan Pendidikan . Surabaya: Unesa
6. Sujianto, A.E. 2009. Aplikasi Statistik dengan SPSS 16 . 0
7. Riduwan, 2009. Skala Pengukuran Variable-Variable Penelitian . Bandung: CV Alfabeta
8. Riduwan dan Sunarto, 2009. Pengantar Statistika untuk Penelitian Pendidikan, Sosial, Ekonomi, Komunikasi dan Bisnis . Bandung: CV Alfabeta
9. Sugiyono; Apri Nuryanto. (2007). Statistika untuk penelitian / Sugiyono, editor, Apri Nuryanto. Bandung ;: Alfabeta
10. Rangkuti, Anna Armeini, 1976- (penulis). (2017). Statistika inferensial untuk psikologi dan pendidikan / Anna Armeini Rangkuti. Jakarta :: Kencana.

Supporters:

1. Kustituanto, Bambang dan Rudy Badrudin. (1994). Seri Diktat Kuliah; Statistika I (Deskriptif). Jakarta; Penerbit Gunadarma

Supporting lecturer	Dr. Agus Suprijono, M.Si. Riyadi, S.Pd., M.A. Dinar Rizky Listyaputri, 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	1.1.1 Analyze the definition, types and functions of statistics	1.1.1.1.1 Explain the definition of statistics 2.1.1.1.2 Describe the types of statistics 3.1.1.1.3 Describe statistical functions	**Criteria:** Benchmark assessment (PAP) **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Tests	pair discussion 2 X 50	pair discussion 2 X 50	**Material:** Basics of statistics **References:** *Arikunto, Suharsimi. 2006. Research Procedures A Practical Approach. Jakarta: Rineka Cipta* **Material:** Basics of statistics **Reference:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Basics of statistics **Reader:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito*	2%

2	1.2.1 Create a mapping of statistical analysis techniques	1.2.1.1 Prepare a map of statistical analysis techniques	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Portfolio Assessment	recitation 2 X 50	lecture, response, pair discussion, preparation of 2 X 50 annotations	**Material:** Basics of statistics **Reference:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Basics of statistics **Reader:** *Bugin. 2001. Social Research Methodology in Quantitative and Qualitative Formats. Surabaya: Airlangga University Press* **Material:** Basics of statistics **Reader:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Basics of statistics **Reader:** *Sunarto. 2001. Research Methodology in Social Sciences and Education. Surabaya: Unesa* **Material:** Basics of statistics **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta*	3%

3	1.2.1 Create a mapping of statistical analysis techniques	1.2.1.1 Prepare a map of statistical analysis techniques	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Portfolio Assessment	recitation 2 X 50	lecture, response, pair discussion, preparation of 2 X 50 annotations	**Material:** Basics of statistics **Reference:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Basics of statistics **Reader:** *Bugin. 2001. Social Research Methodology in Quantitative and Qualitative Formats. Surabaya: Airlangga University Press* **Material:** Basics of statistics **Reader:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Basics of statistics **Reader:** *Sunarto. 2001. Research Methodology in Social Sciences and Education. Surabaya: Unesa* **Material:** Basics of statistics **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta*	3%

4	1.2.1 Create a mapping of statistical analysis techniques	1.2.1.1 Prepare a map of statistical analysis techniques	**Criteria:** Benchmark assessment **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Portfolio Assessment	recitation 2 X 50	lecture, response, pair discussion, preparation of 2 X 50 annotations	**Material:** Basics of statistics **Reference:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Basics of statistics **Reader:** *Bugin. 2001. Social Research Methodology in Quantitative and Qualitative Formats. Surabaya: Airlangga University Press* **Material:** Basics of statistics **Reader:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Basics of statistics **Reader:** *Sunarto. 2001. Research Methodology in Social Sciences and Education. Surabaya: Unesa* **Material:** Basics of statistics **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta*	3%
5	2.1.1 Analyze measures in descriptive statistics	1.2.1.1.1 Describe the measure of data centrality (central tendency) 2.2.1.1.2. Describe diversity measures	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Portfolio Assessment	small group discussion and recitation 2 X 50	small group discussion and recitation 2 X 50	**Material:** Descriptive statistics. 1. Understanding data and types of data. 2. Data collection methods. 3. Data measurement scale. 4. Presentation of data. 5. Size of data center (mean, median, mode, decile, percentile, quartile, and standard deviation 6. Measure of diversity (deviation, standard deviation, variance)	2%

							References: *Sudjana. 2001. Statistical Methods. Bandung: Tarsito*	
							Material: Descriptive statistics. 1. Understanding data and types of data. 2. Data collection methods. 3. Data measurement scale. 4. Presentation of data. 5. Size of data center (mean, median, mode, decile, percentile, quartile, and standard deviation 6. Measure of diversity (deviation, standard deviation, variance) **References:** *Riduwan, 2009. Research Variable-Variable Measurement Scale Bandung: CV Alfabeta*	
							Material: Descriptive statistics. 1. Understanding data and types of data. 2. Data collection methods. 3. Data measurement scale. 4. Presentation of data. 5. Measures of data center (mean, median, mode, decile, percentile, quartile, and standard deviation 6. Measures of diversity (deviation, standard deviation, variance) **References:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic Research , Communication and Business . Bandung: CV Alfabeta*	
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						measurement scale. 4. Presentation of data. 5. Measures of data center (mean, median, mode, decile, percentile, quartile, and standard deviation 6. Measures of diversity (deviation, standard deviation, variance) **References:** *Kustituanto, Bambang and Rudy Badrudin (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta;*	

6	2.2.1 Apply descriptive statistical measures to process data.	1.2.2.1.1 Apply data concentration measures to describe reality 2.2.2.1.2 Apply diversity measures to describe reality	**Criteria:** Benchmark assessment **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	recitation 2 X 50	recitation 2 X 50	**Material:** Descriptive statistics using SPSS **Library:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Descriptive statistics with SPSS **Reference:** *Sujianto, AE 2009. Statistical Applications with SPSS 16. 0* **Material:** Descriptive statistics using SPSS **Library:** *Riduwan, 2009. Research Variables Measurement Scale. Bandung: CV Alfabeta* **Material:** Descriptive statistics with SPSS **Reader:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:** Descriptive statistics using SPSS **Library:** *Kustituanto, Bambang and Rudy Badrudin. (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta; Gunadarma Publishers*	3%

7	2.2.1 Apply descriptive statistical measures to process data.	1.2.2.1.1 Apply data concentration measures to describe reality 2.2.2.1.2 Apply diversity measures to describe reality	**Criteria:** Benchmark assessment **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	recitation 2 X 50	recitation 2 X 50	**Material:** Descriptive statistics using SPSS **Library:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Descriptive statistics with SPSS **Reference:** *Sujianto, AE 2009. Statistical Applications with SPSS 16. 0* **Material:** Descriptive statistics using SPSS **Library:** *Riduwan, 2009. Research Variables Measurement Scale. Bandung: CV Alfabeta* **Material:** Descriptive statistics with SPSS **Reader:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:** Descriptive statistics using SPSS **Library:** *Kustituanto, Bambang and Rudy Badrudin. (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta; Gunadarma Publishers*	3%
8	1.3.1.1 Analyze the concepts of parametric and non-parametric statistics 2.Midterm exam	1.3.2.1 Explain the concept of parametric statistics 2.3.2.1 Explain the concept of non-parametric statistics	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Tests	small group discussion and recitation 2 X 50		**Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression,	5%

								correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito*	
								Material: Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta*	
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9	3.2.1 Apply parametric and non-parametric statistics for hypothesis testing	1.3.2.1 .1. Applying the normality test as a prerequisite test for parametric statistics 2.3.2.1.2 Apply the homogeneity test as a prerequisite test for parametric statistics 3.3.2.1.3 Apply the linearity test as a prerequisite test for parametric statistics 4.3.2.1.4 Applying the T test 5.3.2.1.5 Apply the Anova	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Practice/Performance	recitation 2 X 50		**Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-	5%

			test 6.3.2.1.6 Apply regression tests 7.3.2.1.7 Apply path analysis tests 8.3.2.1.8 Apply the binominal test 9.3.2.1.9 Apply the chi-square test 10.3.2.1.10 Apply the Kolmogorv Smirnov test 11.3.2.1.11 Apply the Mann Whitneyy test 12.3.2.1.12 Apply McNemar's test 13.3.2.1.13 Apply the Wilcoxon signed rank test				Whitney, and Kolomogorov Smirnov **Reference:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **References:** *Sugiyono; Apri Nuryanto.*	

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						Applications with SPSS 16. 0	
10	3.2.1 Apply parametric and non-parametric statistics for hypothesis testing	1.3.2.1 .1. Applying the normality test as a prerequisite test for parametric statistics 2.3.2.1.2 Apply the homogeneity test as a prerequisite test for parametric statistics 3.3.2.1.3 Apply the linearity test as a prerequisite test for parametric statistics 4.3.2.1.4 Applying the T test 5.3.2.1.5 Apply the Anova test 6.3.2.1.6 Apply regression tests 7.3.2.1.7 Apply path analysis tests 8.3.2.1.8 Apply the binominal test 9.3.2.1.9 Apply the chi-square test 10.3.2.1.10 Apply the Kolmogorv Smirnov test 11.3.2.1.11 Apply the Mann Whitneyy test 12.3.2.1.12 Apply McNemar's test 13.3.2.1.13 Apply the Wilcoxon signed rank test	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Practice/Performance	recitation 2 X 50		**Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:**	5%

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11	3.2.1 Apply parametric and non-parametric statistics for hypothesis testing	1.3.2.1 .1. Applying the normality test as a prerequisite test for parametric statistics 2.3.2.1.2 Apply the homogeneity test as a prerequisite test for parametric statistics 3.3.2.1.3 Apply the linearity test as a prerequisite test for parametric statistics 4.3.2.1.4 Applying the T test 5.3.2.1.5 Apply the Anova test 6.3.2.1.6 Apply regression tests 7.3.2.1.7 Apply path analysis tests 8.3.2.1.8 Apply the binominal test 9.3.2.1.9 Apply the chi-square test 10.3.2.1.10 Apply the Kolmogorv Smirnov test 11.3.2.1.11 Apply the Mann Whitneyy test 12.3.2.1.12	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Practice/Performance	recitation 2 X 50		**Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4.	5%

			Apply McNemar's test 13.3.2.1.13 Apply the Wilcoxon signed rank test				Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **References:** *Sugiyono; Apri Nuryanto. (2007). Statistics for research / Sugiyono, editor, Apri Nuryanto. Bandung ;: Alphabeta* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of	

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12	3.2.1 Apply parametric and non-parametric statistics for hypothesis testing	1.3.2.1 .1. Applying the normality test as a prerequisite test for parametric statistics 2.3.2.1.2 Apply the homogeneity test as a prerequisite test for parametric statistics 3.3.2.1.3 Apply	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Practice/Performance	recitation 2 X 50		**Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality,	5%

			the linearity test as a prerequisite test for parametric statistics 4. 3.2.1.4 Applying the T test 5. 3.2.1.5 Apply the Anova test 6. 3.2.1.6 Apply regression tests 7. 3.2.1.7 Apply path analysis tests 8. 3.2.1.8 Apply the binominal test 9. 3.2.1.9 Apply the chi-square test 10. 3.2.1.10 Apply the Kolmogorv Smirnov test 11. 3.2.1.11 Apply the Mann Whitneyy test 12. 3.2.1.12 Apply McNemar's test 13. 3.2.1.13 Apply the Wilcoxon signed rank test				homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis. 7. Chi-square test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:** Inferential statistics. 1. Understanding parametric statistics. 2. Understanding non-parametric statistics. 3. Uses of parametric and non-parametric statistics. 4. Use of parametric and non-parametric statistics. 5. Test normality, homogeneity and linearity. 6. T test, anova, regression, correlation, and path analysis.		

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						test, one sample signed text, Wilcoxon signed rank test, Mann-Whitney, and Kolomogorov Smirnov **Reference:** *Sujianto, AE 2009. Statistical Applications with SPSS 16. 0*	
13	4.1.1 Review data processing for research reports	4.1.1.1 Evaluate data processing for research reports	**Criteria:** Benchmark assessment **Form of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Problem based Learning 2 X 50		**Material:** 1. Application of descriptive statistics in data display. 2. Application of inferential statistics (parametric and non-parametric) in testing hypotheses and conclusions. **Reference:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** 1. Application of descriptive statistics in data display. 2. Application of inferential statistics (parametric and non-parametric) in testing hypotheses and conclusions. **Reference:** *Sujianto, AE 2009. Statistical Application with SPSS 16. 0* **Material:** 1. Application of descriptive statistics in data display. 2. Application of inferential statistics (parametric and non-parametric) in testing hypotheses and conclusions **. Reference:** *Riduwan and Sunarto, 2009. Introduction to Statistics for Educational, Social, Economic, Communication and Business Research. Bandung: CV Alfabeta* **Material:** 1. Application of descriptive statistics in	5%

						data display. 2. Application of inferential statistics (parametric and non-parametric) in testing hypotheses and conclusions. **Reference:** *Sugiyono; Apri Nuryanto. (2007). Statistics for research / Sugiyono, editor, Apri Nuryanto. Bandung ;: Alphabeta* **Material:** 1. Application of descriptive statistics in data display. 2. Application of inferential statistics (parametric and non-parametric) in testing hypotheses and conclusions. **Reference:** *Rangkuti, Anna Armeini, 1976- (author). (2017). Inferential statistics for psychology and education / Anna Armeini Rangkuti. Jakarta :: Kencana.* **Material:** 1. Application of descriptive statistics in data display. 2. Application of inferential statistics (parametric and non-parametric) in testing hypotheses and conclusions. **References:** *Kustituanto, Bambang and Rudy Badrudin. (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta; Gunadarma Publishers*	
14	4.2.1 Designing problem formulation, theoretical studies, thinking framework and hypothesis formulation, determining population and samples, types of data, statistical analysis techniques and data processing	4.2.1.1 Systematically designing theoretical study problem formulation, thinking framework and hypothesis formulation, determining population and sample, types of data, statistical analysis	**Criteria:** Benchmark assessment **Form of Assessment** : Project Results Assessment / Product Assessment	Project based learning 2 X 50		**Material:** Quantitative research design and hypothesis testing. **References:** *Arikunto, Suharsimi. 2006. Research Procedures A Practical*	15%

	(hypothesis testing)	techniques and data processing (hypothesis testing)				*Approach. Jakarta: Rineka Cipta* **Material:** Quantitative research design and hypothesis testing. **References:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Quantitative research design and hypothesis testing. **Reference:** *Bugin. 2001. Social Research Methodology in Quantitative and Qualitative Formats. Surabaya: Airlangga University Press* **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sunarto. 2001. Research Methodology in Social Sciences and Education. Surabaya: Unesa* **Material:** Quantitative research design and hypothesis testing. **References:** *Sujianto, AE 2009. Statistical Applications with SPSS 16. 0* **Material:** Quantitative research design and hypothesis testing. **References:** *Riduwan, 2009. Research Variables Measurement Scale.*		

						Bandung: CV Alfabeta **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sugiyono; Apri Nuryanto. (2007). Statistics for research / Sugiyono, editor, Apri Nuryanto. Bandung ;: Alphabeta* **Material:** Quantitative research design and hypothesis testing. **Bibliography:** *Rangkuti, Anna Armeini, 1976- (writer). (2017). Inferential statistics for psychology and education / Anna Armeini Rangkuti. Jakarta :: Kencana.* **Material:** Quantitative research design and hypothesis testing. **Bibliography:** *Kustituanto, Bambang and Rudy Badrudin. (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta; Gunadarma Publishers*	
15	4.2.1 Designing problem formulation, theoretical studies, thinking framework and hypothesis formulation, determining population and samples, types of data, statistical analysis techniques and data processing (hypothesis testing)	4.2.1.1 Systematically designing theoretical study problem formulation, thinking framework and hypothesis formulation, determining population and sample, types of data, statistical analysis techniques and data processing (hypothesis testing)	**Criteria:** Benchmark assessment **Form of Assessment** : Project Results Assessment / Product Assessment	Project based learning 2 X 50		**Material:** Quantitative research design and hypothesis testing. **References:** *Arikunto, Suharsimi. 2006. Research Procedures A Practical Approach. Jakarta: Rineka Cipta* **Material:** Quantitative research design and hypothesis testing. **References:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Quantitative research design and	15%

							hypothesis testing. **Reference:** *Bugin. 2001. Social Research Methodology in Quantitative and Qualitative Formats. Surabaya: Airlangga University Press* **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sudjana. 2001. Statistical Methods. Bandung: Tarsito* **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sunarto. 2001. Research Methodology in Social Sciences and Education. Surabaya: Unesa* **Material:** Quantitative research design and hypothesis testing. **References:** *Sujianto, AE 2009. Statistical Applications with SPSS 16. 0* **Material:** Quantitative research design and hypothesis testing. **References:** *Riduwan, 2009. Research Variables Measurement Scale. Bandung: CV Alfabeta* **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sugiyono; Apri Nuryanto. (2007). Statistics for research / Sugiyono, editor, Apri Nuryanto. Bandung ,: Alphabeta* **Material:**	

						Quantitative research design and hypothesis testing. **Bibliography:** *Rangkuti, Anna Armeini, 1976- (writer). (2017). Inferential statistics for psychology and education / Anna Armeini Rangkuti. Jakarta :: Kencana.* **Material:** Quantitative research design and hypothesis testing. **Bibliography:** *Kustituanto, Bambang and Rudy Badrudin. (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta; Gunadarma Publishers*	
16	Final exams	4.2.1.1 Systematically designing theoretical study problem formulation, thinking framework and hypothesis formulation, determining population and sample, types of data, statistical analysis techniques and data processing (hypothesis testing)	**Criteria:** Benchmark assessment **Form of Assessment** : Project Results Assessment / Product Assessment	Project based learning 2 X 50		**Material:** Quantitative research design and hypothesis testing. **References:** *Arikunto, Suharsimi. 2006. Research Procedures A Practical Approach. Jakarta: Rineka Cipta* **Material:** Quantitative research design and hypothesis testing. **References:** *Azwar, S. 2004. Research Methods. Yogyakarta: Student Library* **Material:** Quantitative research design and hypothesis testing. **Reference:** *Bugin. 2001. Social Research Methodology in Quantitative and Qualitative Formats. Surabaya: Airlangga University Press* **Material:** Quantitative research design and hypothesis testing. **Reader:**	20%

								Sudjana. 2001. Statistical Methods. Bandung: Tarsito **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sunarto. 2001. Research Methodology in Social Sciences and Education. Surabaya: Unesa* **Material:** Quantitative research design and hypothesis testing. **References:** *Sujianto, AE 2009. Statistical Applications with SPSS 16. 0* **Material:** Quantitative research design and hypothesis testing. **References:** *Riduwan, 2009. Research Variables Measurement Scale. Bandung: CV Alfabeta* **Material:** Quantitative research design and hypothesis testing. **Reader:** *Sugiyono; Apri Nuryanto. (2007). Statistics for research / Sugiyono, editor, Apri Nuryanto. Bandung ;: Alphabeta* **Material:** Quantitative research design and hypothesis testing. **Bibliography:** *Rangkuti, Anna Armeini, 1976- (writer). (2017). Inferential statistics for psychology and education / Anna Armeini Rangkuti. Jakarta :: Kencana.* **Material:** Quantitative research design and		

						hypothesis testing. **Bibliography:** *Kustituanto, Bambang and Rudy Badrudin. (1994). Lecture Diktat Series; Statistics I (Descriptive). Jakarta; Gunadarma Publishers*	

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	22.67%
2.	Project Results Assessment / Product Assessment	56.17%
3.	Portfolio Assessment	5%
4.	Practice / Performance	12%
5.	Test	3.17%
		99.01%

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.