	Universitas Negeri Surabaya Faculty of Education Undergraduate Guidance and Counseling Study Program	**Document Code**	

SEMESTER LEARNING PLAN

Courses		CODE		Course Family		Credit Weight			SEMESTER		Compilation Date
Statistics		8620102196		Compulsory Study Program Subjects		**T=2**	**P=0**	**ECTS=3.18**	1		July 31, 2023
AUTHORIZATION		**SP Developer**			**Course Cluster Coordinator**			**Study Program Coordinator**			
		Ari Khusumadewi, S.Pd., M.Pd.			Dr. Retno Tri Hariastuti, M.Pd.			Dr. Evi Winingsih, S.Pd., M.Pd.			

Learning model	**Case Studies**

Program Learning Outcomes (PLO)	**PLO study program which is charged to the course**	
	PLO-7	Mastering the concepts and practices of guidance and counseling in various contexts and problems
	PLO-9	Able to design, implement and utilize the results of needs assessments for guidance and counseling services
	Program Objectives (PO)	
	PO - 1	Can present and analyze quantitative data from observations correctly and responsibly in accordance with scientific principles and methods in the presentation and analysis of quantitative data (statistical methods)
	PLO-PO Matrix	

P.O	PLO-7	PLO-9
PO-1	✔	✔

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	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔

Short Course Description	This course teaches students about the nature of statistics, statistical techniques for presenting data, statistical techniques for testing hypotheses about linear, functional and causal relationships between variables, both linear relationships through manual calculations and with SPSS software. Lectures are carried out using the case study method. Student assessment is determined by active participation in lecture activities, completeness of assignments, and exam results. The material to be studied includes: 1. Statistical concepts 2. Presentation of descriptive data 3. Assumption test 4. Correlation test 5. Regression test 6. Difference test 7. Anova test 8. Non-parametric test

References	**Main :**

1. Basuki, A, T. 2015. Penggunaan SPSS dalam Statistik. Sleman: Danisa Media. Tersedia: https://ekonometrikblog.files.wordpress.com
2. Bluman Allan G. 2007. Elementary Statistics seventh edition. Mc Graw Hill
3. Michael Longnecker, 2010. An IntroductionStatistical Methods and Data Analysis. Cengage Learning
4. Santoso. 2017.Statistik Multivariate dengan SPSS.Jakarta: PT Elex MediaKomputindo
5. Santoso Singgih. 2002. Buku Latihan SPSS Statistik parametrik. Jakarta: PT. Elex Media Komputindo.
6. Santosa, S. 2020. Menguasai Statistik dengan SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Tersedia: https://docplayer.info/111310905-Menguasai-statistik-dengan-spss-25.html
7. Supardi. 2017.Statistik Penelitian Pendidikan.Depok: PT Rajagrafindo Persada.
8. Winarsunu, T. 2010.Statistik dalam Penelitian Psikologi dan Pendidikan.Malang: UMMPress

Supporters:

1. Basuki, A, T. 2015. Penggunaan SPSS dalam Statistik. Slman: Danisa Media. Tersedia: https://ekonometrikblog.files.wordpress.com/2018/02/panduan-spss-untuk-statistik.pdf
2. Khusumadewi, A., WS, H. W., & Wiyono, B. D. (2017). Pengembangan modul cultural awareness untuk konselor sebaya. Jurnal Bikotetik (Bimbingan dan Konseling: Teori dan Praktik), 1(1), 30-36.
3. Khusumadewi, A. (2021, December). Identification of student (Santri) problems on islamic boarding school (pondok pesantren). In International Joint Conference on Arts and Humanities 2021 (IJCAH 2021) (pp. 990-993). Atlantis Press.

Supporting lecturer	Dr. Eko Darminto, M.Si. Dr. Retno Tri Hariastuti, M.Pd., Kons. Prof. Dr. Mochamad Nursalim, M.Si. Dr. Ari Khusumadewi, 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)

No							
1	1.Mastering the basic concepts of statistics 2.identify BK fields that require statistics	1.Be able to explain the difference between statistics and statistics 2.Able to differentiate between the concepts of descriptive statistics and inferential statistics 3.Able to differentiate between parametric and non-parametric statistics 4.Able to create examples of nominal, ordinal, interval and ratio scale data 5.Able to explain the difference in probability or significance level of 0.01 and 0.05 6.Able to create statistical hypotheses in the form of null and working hypotheses.	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final score for activity: (Total score for activity: 26) : number of items) x 100 **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Tests	case study, Small Group Discussion (SGD) Case/project based learning 2 X 50		**Material:** identification of areas of education that require statistics. **Reference:** *Michael Longnecker, 2010. An Introduction to Statistical Methods and Data Analysis. Cengage Learning*	3%
2	1.Mastering data presentation techniques 2.designing data presentation	1.Can present observational data in the form of a frequency distribution table 2.Can present observational data in graphical form	**Criteria:** Activeness score: each item of active behavior (attending, asking, answering, commenting) observed is given a score of 1. In each lecture session, students must display at least one active activity. Final score for activity: (Total score for activity: 26) number of items) x 100 **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Portfolio Assessment	project base learning, Small Group Discussion (SGD) PBL/PBK 2 X 50		**Material:** designing data presentation **Reader:** *Supardi. 2017. Educational Research Statistics. Depok: PT Rajagrafindo Persada.*	4%
3	1.Can determine measures of central tendency 2.designing criteria in statistics	1.Can determine the size of the mean in a distribution of observational data 2.Can determine the size of the median in a distribution of observational data 3.Can determine the size of the mode and its location in a distribution of observed data 4.Can present data in graphical form based on mean, median and mode measures	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final score for activity: (Total score for activity: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities, Portfolio Assessment	case method, Small Group Discussion (SGD) PBL/PBK 2 X 50		**Material:** Statistical criteria **Reader:** *Santoso Singgih. 2002. SPSS Practice Book Parametric statistics. Jakarta: PT. Elex Media Komputindo.*	4%

4	Can present data based on measures of variability	1. Can determine the size of the standard deviation of a data distribution 2. Can determine the size of the variance of a data distribution 3. Can determine the standard quartile size of a data distribution 4. Can determine the percentile size of a data distribution 5. Can determine the Standard Value size of a data distribution	**Criteria:** Activeness assessment: activeness assessment is based on the frequency of activity shown by students during lectures, which is calculated in 13 sessions. The active aspects assessed are presence, asking, answering, commenting (increasing or decreasing). Assignment performance assessment: performance assessment is based on how many homework questions the student can answer correctly. **Form of Assessment** : Participatory Activities	Small Group Discussion (SGD) PBL/PBK 2 X 50	**Material:** Variable data **References:** *Basuki, A, T. 2015. Use of SPSS in Statistics. Slman: Danisa Media. Available: https://ekonometricblog.files.wordpress.com/...*	4%
5	Mastering parametric assumption testing techniques	1. Can perform statistical calculations to determine the normality of a data distribution 2. Can carry out statistical calculations to determine the homogeneity of variance between data groups 3. Can perform statistical calculations to determine the linearity of a data distribution 4. Can perform statistical calculations to determine multicollinearity of a group of data 5. Can perform statistical calculations to determine heteroscedasticity of a data group 6. Can perform statistical calculations to determine autocorrelation of a group of data	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	Small Group Discussion (SGD) PBL/PBK 2 X 50	**Material:** parametric assumption testing techniques **Reference:** *Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...*	3%
6	Mastering pametric and non-parametric statistical techniques to test hypotheses about associative relationships/correlations between two or more groups of data	1. Can explain the meaning of correlation relationships 2. Can explain the difference between positive and negative correlation 3. Can provide meaning to the magnitude of the coefficient 4. Can test hypotheses about significant relationships between two groups of data through parametric and non-parametric statistical techniques 5. Can test hypotheses about significant relationships between two or more groups of data through parametric and non-parametric statistical techniques	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities, Tests	Small group discussion PBL/PBK 2 X 50	**Material:** Parametric and non-parametric statistical techniques for testing hypotheses about associative relationships/correlations between two or more groups of data. **Reference:** *Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...*	3%

7	Mastering pametric and non-parametric statistical techniques to test hypotheses about associative relationships/correlations between two or more groups of data	1. Can explain the meaning of correlation relationships 2. Can explain the difference between positive and negative correlation 3. Can provide meaning to the magnitude of the coefficient 4. Can test hypotheses about significant relationships between two groups of data through parametric and non-parametric statistical techniques 5. Can test hypotheses about significant relationships between two or more groups of data through parametric and non-parametric statistical techniques	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Test	Small group discussion PBL/PBK 2 X 50		**Material:** Parametric and non-parametric statistical techniques for testing hypotheses about associative relationships/correlations between two or more groups of data. **Reference:** *Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...*	4%
8	Mastering the genitals at the end of meetings 1 to 7	Meeting ability indicators 1 to 7	**Criteria:** Give a score of 4 if you can do one exam question number well and correctly. Give a score of 3 if you get a lot of work on one question number correctly, there are a few mistakes. A score of 2 if you do a little of the work on one question number. Give a score of one if you do the work on one question number incorrectly. Score 0 if did not do or did but indicated plagiarism. Score = (∑ score: 24) x 100 **Forms of Assessment** : Participatory Activities, Portfolio Assessment, Tests	2 X 50 midterm tests/exams		**Material:** Meeting material 1-7 **Reader:** *Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...*	20%
9	Master statistical techniques to test hypotheses about predictive relationships between two or more groups of data	1. - Can test hypotheses about the predictive relationship between two interval scale variables 2. - Can test hypotheses about predictive relationships between three or more variables on an interval scale 3. - Can test hypotheses about the predictive relationship between two non-interval (dummy) scale variables 4. - Can test hypotheses about predictive relationships between three or more non-interval (dummy) scale variables	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	PBL/PBK group discussion 2 X 50		**Material:** Statistical techniques for testing hypotheses about predictive relationships between two or more groups of data. **Reference:** *Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...*	4%

10	Master statistical techniques to test hypotheses about predictive relationships between two or more groups of data	1.- Can test hypotheses about the predictive relationship between two interval scale variables 2.- Can test hypotheses about predictive relationships between three or more variables on an interval scale 3.- Can test hypotheses about the predictive relationship between two non-interval (dummy) scale variables 4.- Can test hypotheses about predictive relationships between three or more non-interval (dummy) scale variables	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities, Tests	PBL/PBK group discussion 2 X 50		**Material:** Statistical techniques for testing hypotheses about predictive relationships between two or more groups of data. **Reference:** Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...	4%
11	Master statistical techniques to test hypotheses about predictive relationships between two or more groups of data	1.- Can test hypotheses about the predictive relationship between two interval scale variables 2.- Can test hypotheses about predictive relationships between three or more variables on an interval scale 3.- Can test hypotheses about the predictive relationship between two non-interval (dummy) scale variables 4.- Can test hypotheses about predictive relationships between three or more non-interval (dummy) scale variables	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	PBL/PBK group discussion 2 X 50		**Material:** Statistical techniques for testing hypotheses about predictive relationships between two or more groups of data. **Reference:** Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...	3%
12	Mastering pametric and non-parametric statistical techniques to test hypotheses about causal relationships between two groups of data	1.Able to test hypotheses about the causal relationship between two independent variables at periodic intervals 2.Able to test hypotheses about the causal relationship between two variables in pairs at regular intervals using parametric techniques 3.Able to test hypotheses about the causal relationship between two non-interval periodic independent variables 4.Able to test hypotheses about the causal relationship between two non-interval periodic paired variables	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	Small group discussion PBL/PBK 2 X 50		**Material:** Parametric and non-parametric statistical techniques for testing hypotheses about causal relationships between two groups of data. **Reference:** Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...	3%

13	Mastering pametric and non-parametric statistical techniques to test hypotheses about causal relationships between two groups of data	1. Able to test hypotheses about the causal relationship between two independent variables at periodic intervals 2. Able to test hypotheses about the causal relationship between two variables in pairs at regular intervals using parametric techniques 3. Able to test hypotheses about the causal relationship between two non-interval periodic independent variables 4. Able to test hypotheses about the causal relationship between two non-interval periodic paired variables	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	Small group discussion PBL/PBK 2 X 50		**Material:** Parametric and non-parametric statistical techniques for testing hypotheses about causal relationships between two groups of data. **Reference:** *Santosa, S. 2020. Mastering Statistics with SPSS 25. Jakarta: PT ELEX MEDIA KOMPUTINDO. Available: https://docplayer.info/...*	3%
14	Mastering parametric and non-parametric statistical techniques to test hypotheses about causal relationships between three or more groups of data	1. - Can test hypotheses about causal relationships between three or more groups of data on an interval scale 2. - Can test hypotheses about causal relationships between two or more multivariate data on an interval scale 3. - Can test hypotheses about causal relationships between three or more groups of data on a non-interval scale 4. - Can test hypotheses about causal relationships between two or more groups of multivariate data on a non-interval scale	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	Small group discussion PBL/PBK 2 X 50		**Material:** Parametric and non-parametric statistical techniques for testing hypotheses about causal relationships between three or more groups of data. **Reference:** *Santoso Singgih. 2002. SPSS Practice Book Parametric statistics. Jakarta: PT. Elex Media Komputindo.*	4%
15	Mastering parametric and non-parametric statistical techniques to test hypotheses about causal relationships between three or more groups of data	1. - Can test hypotheses about causal relationships between three or more groups of data on an interval scale 2. - Can test hypotheses about causal relationships between two or more multivariate data on an interval scale 3. - Can test hypotheses about causal relationships between three or more groups of data on a non-interval scale 4. - Can test hypotheses about causal relationships between two or more groups of multivariate data on a non-interval scale	**Criteria:** Activeness: each item of active behavior (attending, asking, answering, commenting) that is observed is given a score of 1. In each lecture session, students must display at least one active activity. Final activity score: (Total activity score: 26) : number of items) x 100. **Form of Assessment** : Participatory Activities	Small group discussion PBL/PBK 2 X 50		**Material:** Parametric and non-parametric statistical techniques for testing hypotheses about causal relationships between three or more groups of data. **Reference:** *Santoso Singgih. 2002. SPSS Practice Book Parametric statistics. Jakarta: PT. Elex Media Komputindo.*	4%

| 16 | Mastering the final skills from meetings 9 to 15 | Indicators for meetings 9 to 15 | **Criteria:** Give a score of 4 if you can do one question number well and correctly. Give a score of 3 if a lot of work on one question number is correct, there are a small number of errors. Score 2 if the work on one question number is slightly correct. Give a score of one if the work on one question number is wrong. Give a score of 0. if you don't do it or do it but it is indicated that you have plagiarized. Score = ($\sum$ score: 24) x 100

Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Portfolio Assessment, Tests | Test/Exam 2 X 50 | | **Material:** Meeting material 9-15
References: *Basuki, A, T. 2015. Use of SPSS in Statistics. Slman: Danisa Media. Available: https://ekonometricblog.files.wordpress.com/...* | 30% |

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	50%
2.	Project Results Assessment / Product Assessment	8.83%
3.	Portfolio Assessment	18.5%
4.	Test	22.67%
		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.