	Universitas Negeri Surabaya Faculty of Engineering, Cosmetology Education Undergraduate Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Statistics	8321302004		T=2	P=0	ECTS=3.18	4	July 17, 2024

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

Program Objectives (PO)

PO - 1	Students have the ability to analyze problems in learning statistics; 2. Students have knowledge of basic statistical concepts and apply the concepts in the learning process; 3. Students have the ability to analyze everyday problems solved with related statistical concepts; 4. Students have a responsible attitude in developing statistical applications and concepts.
PO - 2	Students have the ability to analyze problems in learning statistics2. Students have knowledge of basic statistical concepts and apply the concepts in the learning process3. Students have the ability to analyze everyday problems solved with related statistical concepts 4. Students have a responsible attitude in developing statistical applications and concepts.

PLO-PO Matrix

P.O
PO-1
PO-2

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																

Short Course Description	Conduct studies and provide an understanding of the role of statistics through learning that is adapted to the curriculum structure in the field of culinary arts. Learning statistics consists of: understanding and role of statistics, presenting data in the form of tables, diagrams and graphs. Measures of centrality, deviation, population models. Hypothesis testing, difference testing, and correlation testing. The assessment is carried out during the learning process with participation during online face-to-face meetings, USS, and UAS.

References

Main :

1. 1. Sudjana. 2017. Metoda Statistika . Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistika untuk Penelitian dan Aplikasinya dengan SPSS . Bandung: Alfabeta 3. Rosner, Bernard. 1986. Fundamental of Biostatistics, second edition. Massachusetts: PWS Publishers

Supporters:

1. Bahan Ajar untuk kalangan sendiri

Supporting lecturer	Dra. Dewi Lutfiati, M.Kes. apt. M.A. Hanny Ferry Fernanda, S.Farm., M.Farm.

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	Able to understand the basic concepts of statistics, and the role of statistics in research	1.1. Master the basic concepts of statistics and statistics, the scope of statistics 2.2. Explain the data 3.3. Explain the role of statistics in research	**Form of Assessment** : Participatory Activities	Lectures, discussions		**Material:** 1. Explain the meaning of statistics and statistics, the scope of statistics 2. Give examples of the four data and measurement scales 3. Explain the role of statistics in research **Literature:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
2	Able to understand the concept of descriptive statistics	1.1. Explain the meaning of descriptive statistics 2.2. Explain the various types of data presentation 3.3. Discuss measures of central tendency 4.4. Discuss location size 5.5. Discuss measures of dispersion 6.6. Explain the population model 7.7. Discuss moment, skewness and kurtosis		Brainstorming, Discussion and reflection		**Material:** 1. explain the meaning of descriptive statistics 2. explain the various types of data presentation 3. State the measure of central tendency 4. Explain the measure of location **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%

3	Able to understand the concept of normal distribution and apply normal curves	1.1. Explain the meaning of a normal curve 2.2. count cases using a normal curve 3.3. Apply the Normality Test		Lectures, discussions, presentations		**Material:** 1. explain the meaning of a normal curve 2. calculate cases using a normal curve **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
4	Able to understand the concepts of POPULATION, SAMPLE, and SAMPLING TECHNIQUES	1.1. discuss the meaning of population, sample and sampling techniques 2.2.discuss various sampling techniques 3.3. Give an example of a probability sampling technique 4.4. Create examples of non-probability sampling techniques		Lectures, discussions, presentations		**Material:** 1. Explain the meaning of population, sample and sampling technique 2. Differentiate types of sampling techniques 3. Give examples of probability sampling techniques 4. Give examples of non-probability sampling techniques **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%

5	Understand the basic concepts of hypothesis testing	1. Explain the basic concept of hypothesis testing 2. Explains three forms of hypothesis formulation, both descriptive, comparative and associative hypotheses 3. Explain the meaning of error rate in a hypothesis 4. Apply descriptive hypothesis testing		Lectures, exercises and assignments		**Material:** Solving descriptive hypothesis testing questions **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
6	Understanding one-sample descriptive hypothesis testing (nonparametric)	1. Explain the meaning of non-parametric one-sample descriptive hypothesis testing 2. Explain the binomial test 3. Explain and perform the chi Square test		Lectures, exercises and assignments		**Material:** One sample descriptive hypothesis test **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
7	Understand comparative hypothesis testing of two samples	1. Explains comparative hypothesis testing for two samples 2. Carrying out comparative hypothesis testing of two correlated samples		Discussions, questions and answers and presentations		**Material:** comparative hypothesis between two samples Carrying out comparative hypothesis testing or two correlated samples **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
8				UTS			0%

9	Understand comparative hypothesis testing for two samples and k samples	1. Understand comparative hypothesis testing of two samples 2. Understand k sample hypothesis testing				**Material:** carry out comparative hypothesis testing for two samples (t test) and can test hypothesis for k samples (Anava) **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
10	Explain and test associative hypotheses	1. Explain and carry out parametric associative hypothesis testing 2. Explain and conduct Moment Product correlation testing				**Material:** can carry out parametric associative hypothesis testing. Can carry out correlation testing MomentData Products **Literature:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%

11	Understand non-parametric associative hypothesis testing	1. Explaining non-parametric associative statistics 2. Explain and determine the contingency coefficient 3. Explain and determine spearman rank				**Material:** Explaining non-parametric associative statistics Determining contingency coefficients Solving problems by applying spearman rank **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
12	Understand simple linear regression analysis	1. Explain the meaning of simple linear regression 2. Mention an example of a simple linear regression calculation 3. Carrying out regression linearity tests 4. Calculate the prices of a and b 5. Drawing up a regression equation 6. Create a regression line				**Material:** Calculating simple linear regression Carrying out a regression linearity test Calculating the prices of a and b Developing a regression equation Creating a regression line **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%

13	Explain multiple regression analysis	1. Explains multiple regression analysis for two predictors 2. Explains regression analysis of three predictors		Lectures and Practice Questions		**Material:** Carrying out multiple regression analysis of two predictors Carrying out regression analysis of three predictors **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
14	Explain the meaning of instrument validity testing	1. Explain the meaning of instrument validity testing 2. Explain construct validity testing 3. Explain content validity testing 4. Explain external validity testing		Questions and answers, practice questions		**Material:** Carrying out instrument validity testing Conducting construct validity testing Carrying out content validity testing Carrying out external validity testing Carrying out instrument reliability testing **References:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%

15	Understanding k sample comparative hypothesis testing (Non Parametric)	Able to carry out comparative hypothesis testing k samples (Non Parametric)				**Material:** comparative hypothesis testing k samples (Non Parametric), namely Kruskal Wallis **Library:** *1. Sudjana. 2017. Statistical Methods. Bandung: Tarsito 2. Sugiyono, Eri Wibowo. 2004. Statistics for Research and Applications with SPSS. Bandung: Alphabeta 3. Rosner, Bernard. 1986. Fundamentals of Biostatistics, second edition. Massachusetts: PWS Publishers*	0%
16	UAS			UAS			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.