

Universitas Negeri Surabaya Faculty of Education, Bachelor of Primary School Teacher Education Study Program

Document Code

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SEMESTER LEARNING PLAN

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6. Richard | Bluman Allan G. 2007. Elementary Statistics seventh edition. Mc Graw Hill Michael Longnecker. 2010. An Introduction Statistical Methods and Data Analysis. Cengage Learning Siregar, S. 2017. Metode Penelitian Kuantitatif: Dilengkapi dengan Perhitungan Manual & SPSS. Kencana: Jakarta. Sugiono. 2017. Statistika untuk Penelitian. Alfabeta: Bandung. Hadi, S. 2017. Statistik. Edisi Revisi. Pustaka Pelajar: Yogyakarta. Richard J. Shavelson. 1998. Statistical Reasoning for Behavioral Science. Massachusetts: Allyn and Bacon. | | |

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		Supporters:							
Support lecturer	ing	Drs. H. Budiyono, Dr. Wiryanto, M.S. Neni Mariana, S.F Ika Rahmawati, S Delia Indrawati, S	, S.Pd., 5i. Pd., M.S 5.Si., M. 5.Pd., N	M.Pd. Sc., Ph.D. .Pd. 1.Pd.					
Week-	Fina eac stag	al abilities of h learning ge	Evaluation		Hel Learr Studen [Es	lp Learning, ning methods, t Assignments, t <mark>imated time]</mark>	Learning materials	Assessment Weight (%)	
	(Su	b-PO)	h	ndicator	Criteria & Form	Offline (Online (online) offline)		[References]	
(1)		(2)		(3)	(4)	(5)	(6)	(7)	(8)
1	Ab me co sta infi	le to explain the aning of basic ncepts of tistics and erential statistics	1.E d b n s s 2.E t t 3.E 3.E 3.E t 4.E d s	Explain the lifference between the neaning of tatistics and tatistics Explain the elationship between esearch and Statistics. Explain the bole of tatistics in esearch Explains lescriptive tatistics.	Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities	1. Lecture 2. Question and Answer 3. Discussion 2 X 50		Material: References: [1], [2], [3], [4], [5] References: Bluman Allan G. 2007. Elementary Statistics seventh edition. McGraw Hill	0%
2	Stu to int me inf an	Idents are able conceptually erpret the eaning of erential statistics d hypothesis.	1.1 U a ir s 2.2 c ty h 3.3 fc ta 4.4 F T	Jnderstanding Inalysis and Inferential tatistical tests 2. Definition, oncepts and ypes of hypotheses 3. How to ormulate and est ypotheses b. Form of Hypothesis resting	Criteria: Activeness and mastery of material in group presentations Form of Assessment : Participatory Activities, Practice/Performance	Presentation, Questions and Answers 2 X 50			0%
3	1 2 3 4 5 6 7	Students are able to conceptually understand data and data collection in statistics .1. Understanding data .2. Data grouping .3. Data collection methods .4. Scale of data collection .5. Research instrument measurement scale .6. Population and Sample			Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities, Practice/Performance	Presentation, Q&A 2 X 50'	2x50' Assignment		20%

4	 Students are able to formulate hypotheses in research Definition of hypothesis The concept of hypothesis Type of research hypothesis How to formulate and test hypotheses Form of hypothesis testing 	 1.1. Accuracy in explaining the concept of statistical data 2.2. Accuracy of using examples of statistical data in everyday problems 	Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities, Practice/Performance	1. Lecture 2. Question and Answer 3. Discussion 2X 50	2x50' Assignment	20%
5	 Students are able to apply the concept of Research Instrument Measurement (Validity and Reliability) in research. Understanding research instruments Validity How to test construct validity How to test construct validity Reliability test S. Reliability measurement techniques Calculate the reliability of the Cronbach's Alpha technique with SPSS 		Criteria: 20% Participation, 30% Assignment, 20% UTS, and 30% UAS Form of Assessment : Participatory Activities, Practice/Performance	1. Lecture 2. Question and Answer 3. Discussion 2X 50	2x50' Assignment	20%
6	 Students are conceptually capable in Data Processing and Analysis Understanding data processing and data analysis Quantitative data processing Quantitative data analysis 		Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities, Practice/Performance	1. Questions and Answers 2. Discussion3. Assignment 2 X 50	Assignment	0%
7	1.Students are able to Design Quantitative Research 2.1. Research Design 3.2. Research Proposal (individual)	Can arrange and carry out: 1. research hypothesis, and 2. descriptive statistical test	Criteria: 1.Activeness and mastery of material 2.20% Participation, 30% Assignment, 20% UTS, and 20% UAS Form of Assessment : Participatory Activities, Practice/Performance	1. Presentation2. Questions and Answers 2X 50	2x50' Assignment	20%
8	Students are able to achieve half of the required course achievements [meeting materials 1 to 7]		Criteria: Maximum Score 100	Sub Summative Exam 2 X 50'	2x50' Assignment	0%

9	 Mastering the concept of Descriptive Statistical Tests Understanding descriptive statistical analysis and tests Descriptive analysis of nominal data types Descriptive ordinal data type Descriptive analysis of interval/ratio data types 	Can perform: 1. Comparative analysis of two correlated samples 2. Comparative analysis of more than two samples (one-way and two-way ANOVA) 3. Calculation of two-way ANOVA 3. Calculation of two-way ANOVA test without interaction with SPSS	Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities	1. Discussion2. Assignment 2 X 50'		20%
10	Statistical Test Parameter 1 (Comparative Analysis of two samples)		Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities	1. Presentation 2. Question and answer 2 X 50		20%
11	Students are able to carry out Parameter 2 Statistical Test (Comparative Analysis of more than two samples)		Criteria: Activeness and mastery of material Form of Assessment : Participatory Activities	 Presentation Question and answer X 50 		20302030%
12	Students are able to carry out Parameter 3 Statistical Tests (One-Way Anova & Two-Way Anova)	Minimum learning completeness 85%	Criteria: Activeness and mastery of material in group presentations Form of Assessment : Participatory Activities	1. Presentation 2. Question and answer 2 X 50	assignment 2x50'	20302030%
13	 Students are conceptually capable in Correlation Analysis (Pearson Product Moment & Multiple) Understanding Correlation Analysis. Techniques used in analyzing relationships Pearson Product Moment Correlation Multiple Correlation 	Minimum learning completeness 85%	Criteria: Activeness and mastery of material in group presentations Form of Assessment : Participatory Activities	1. Presentation of Assignment 4 2. Questions and Answers 3. Discussion 4 X 50		20%
14	Able to present non-parametric statistics and several examples of non-parametric tests	1. Able to present non-parametric statistics 2. Able to present non- parametric examples of manual calculations 3. Able to present non-parametric examples of SPSS calculations	Criteria: Follows UNESA guidelines	Scientific/ lecture- presentation- question and answer/ PBL and mini research 2 X 50		20%

15	1 Able to carry	Minimum learning	Criteria:	Scientific/	Material: 1	20%
	out regression	completeness	Follows UNESA	lecture-	Biehler, R.,	2070
	analysis	85%	guidelines	presentation-	Scholz, R.W.,	
	2.1. Simple		Form of Assessment	question and	Strässer, R., &	
	Linear		Participatory Activities	answer/ PBL	Winkeimann, B (Eds.)	
	Regression			research	(2006).	
	3.2. Multiple			2 X 50	Didactics of	
	Degression				mathematics	
	Regression				as a scientific	
					13) Springer	
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					(2005). The	
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					implications of	
					reforming	
					concepts of	
					learning. The	
					mathematics	
					educator,	
					15(1). 3. Ernost P	
					Skovsmose.	
					O., Paul van	
					Bendegem, J.,	
					Bicudo, M., Miarka R	
					Kvasz, L., &	
					Moeller, R.	
					(2016). The	
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					References:	

16	Students are able to prepare quantitative research proposals and carry out mini research individually.	Minimum learning completeness 85%	Criteria: According to UNESA guidelines Form of Assessment : Participatory Activities	Questions and answers, group presentations and assignments.	Material: 3. Ernest, P., Skovsmose, O., Paul van Bendegem, J., Bicudo, M., Miarka, R., Kvasz, L., & Moeller, R. (2016). The philosophy of mathematics education. Springer Nature. 4. Ernest, P. (Ed.). (2003). Mathematics education and philosophy: An international perspective. Routledge. 5. Ernest, P. (1994). Social constructivism as a philosophy of mathematics. Sunny Press. 6. Ernest, P. (1994). The philosophy of mathematics and the didactics of mathematics as a scientific discipline, 335- 350. Bibliography: <i>Richard J.</i> <i>Shavelson.</i> 1998.	20%
					Bibliography: Richard J. Shavelson. 1998. Statistical Reasoning for Behavioral Science. Massachusetts: Allyn and Bacon. Material: References: [1], [2], [3], [4], [5] References:	

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	40604200%
2.	Practice / Performance	40%
		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.
 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.
- 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
- 10. Learning materials are details of 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.