

**SEMESTER LEARNING PLAN (SLP)**


**INFERENCEAL STATISTICS**



**Lecturer:**

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**ECONOMIC EDUCATION STUDY PROGRAM  
FACULTY OF ECONOMICS AND BUSINESS EDUCATION  
UNIVERSITAS PENDIDIKAN INDONESIA  
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	<b>SEMESTER LEARNING PLAN</b>	No.Dok :
		Revisi :
	<b>INFERENTIAL STATISTICS</b>	Tanggal :
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Lecturer	Reviewer	Head of study program
<b>SEMESTER LEARNING PLAN</b>		
<b>1. Course Identity</b>		
Study Program	: Economic Education	
Course Name	: Inferential Statistics	
Course Code	: PE417	
Course Group	: Study Program-Based Core Professional Courses	
Credit Weight	: 3	
Level	: Undergraduate	
Semester	: 3	
Precondition	: Descriptive Statistics	
Status (Compulsory/Elective)	: Compulsory	
Lecturer Name and Code	: Dr. Kusnendi, MS. (0815)	
	: Dr. Ani Pinayani, MM. (1170)	
	: Dr. Navik Istikomah, M.Si. (2310)	

## 2. Course Description

Inferential Statistics is a compulsory course for undergraduate students (S-1) of the Economics Education Study Program of Faculty of Economics and Business Education (abbreviated as FPEB) UPI. This course discusses data processing techniques to draw conclusions through parameter estimation (point estimation and interval estimation) and hypothesis testing using parametric and non-parametric statistical analysis techniques. After taking this course, students are expected to have insight and skills in processing research data, interpreting data processing results, and making conclusions. Learning focuses on active student learning with asynchronous and synchronous approaches. The assessment aspect consists of process assessment and result assessment. Process assessment carried out during the learning process includes student activities and student interactions, which are assessed using observation techniques. Assessment of learning outcomes is carried out in the middle of the semester and the end of the semester, using written test techniques and quantitative problem-solving instruments. The grade of this course is assigned using Assessment of Benchmark Reference Type.

## 3. Referred Study Program Learning Achievement

- S1 Demonstrate scientific, educative, and religious attitudes and behaviors that contribute to improving the quality of life in society, nation and state based on academic norms and ethics Demonstrate a responsible attitude towards work in the field of expertise independently.
- P4 Mastering research methods to carry out research in the field of economic education.
- KK3 Able to design and carry out research to produce alternative solutions to problems in the field of economic education and publish the results.

## 4. Course Learning Achievement

- S1.1 Carry out work duties with full responsibility in the context of statistical material.
- P4.1 Have conceptual knowledge about the role of statistical analysis in research
- P4.2 Mastering conceptual knowledge related to differences in parameter estimation and hypothesis testing
- P4.3 Have conceptual knowledge related to calculating / estimating a parameter in the population
- P4.4 Mastering knowledge related to hypothesis testing on average, percentage and variance/standard deviation

P4.5	Mastering knowledge related to hypothesis testing the difference between two mean values, percentage and variance/standard deviation
P4.6	Mastering knowledge related to hypothesis testing of the relationship/correlation between variables.
P4.7	Mastering knowledge related to hypothesis testing the effect of independent variables on the dependent variable.

## 5. Learning Plan Description

Week	Course Learning Achievement	Learning Materials	Teaching/Learning Activities	Duration	Assessment	Reference
1	S1.1; P4; KK3 Lecture Orientation	1. Lecture Description. 2. Semester Learning Plan (SLP). 3. Lecture rules. 4. Lecture ethics.	<b>Synchronous</b> Virtual synchronous learning to explore lecture descriptions, lesson plans, lecture rules, and lecture ethics.	3 x 50 minutes	-	-
2	P4.1 : Have conceptual knowledge about the role of statistical analysis in research.  Indicators of CLA: Explain the role of statistical analysis in research.	The role of statistical analysis in research.	<b>Synchronous</b> Virtual Synchronous Learning via Zoom Meeting  <b>Asynchronous</b> Self study through classwork on <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> or WA Group.	3 x 50 minutes	Make a short summary writing about the role of statistical analysis in research	1,2,3,4,6,7
3	P4.2 : Mastering conceptual knowledge related to differences in parameter	Inferential Statistics	<b>Synchronous</b> Virtual Synchronous Learning via Zoom Meeting  <b>Asynchronous</b>	3 x 50 minutes	Group assignments make podcasts, ppt, videos, infographics, etc. according to the lecture material.	1,2,3,4,6,7

Week	Course Learning Achievement	Learning Materials	Teaching/Learning Activities	Duration	Assessment	Reference
	estimation and hypothesis testing.  Indicators of CLA: Distinguish between parameter estimation and hypothesis testing.		Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.		Individual assignments. Students are asked to do assignments at spot.upi.edu	
4	P4.3 : Have conceptual knowledge related to calculating/ estimating a parameter in the population.  Indicators of CLA: <ul style="list-style-type: none"> <li>▪ Calculating / estimating the percentage parameter in the population.</li> <li>▪ Calculating / estimating the average parameter in the population.</li> <li>▪ Calculating / estimating the parameter variance / standard deviation in the population.</li> </ul>	Estimation	Synchronous Virtual Synchronous Learning via Zoom Meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.	3 x 50 minutes	Group assignments make podcasts, ppt, videos, infographics, etc. according to the lecture material.  Individual assignments. Students are asked to do assignments at spot.upi.edu	1,2,3,4,6,7
5	P4.4 : Mastering procedural knowledge related to testing the average, percentage and	Hypothesis test	Synchronous Virtual Synchronous Learning via Zoom Meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> ,	3 x 50 minutes	Group assignments make podcasts, ppt, videos, infographics, etc. according to the lecture material. Individual assignments.	1,2,3,4,6,7

Week	Course Learning Achievement	Learning Materials	Teaching/Learning Activities	Duration	Assessment	Reference
	variance/standard deviation hypotheses.  <b>Indicators of CLA:</b> Explain the steps to formulate the average, percentage and variance/standard deviation hypotheses.		Collaborative Asynchronous via video call WhatsApp.		Students are asked to do assignments at spot.upi.edu Students are asked to do assignments at spot.upi.edu	
6	<b>P4.4 :</b> Mastering procedural knowledge related to testing the average, percentage and variance/standard deviation hypotheses.  <b>Indicators of CLA:</b> Testing the mean, percentage and variance/standard deviation hypotheses	Testing the mean, percentage and variance/standard deviation	Synchronous Virtual Synchronous Learning via Zoom Meeting Virtual face-to-face via Zoom meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.	3 x 50 minutes	The task of the group observing a problem and formulating the hypothesis is the average, percentage and standard deviation.	1,2,3,4,6,7
7	<b>P4.5 :</b> Mastering knowledge related to hypothesis testing the difference between two mean values, percentage and variance/standard deviation.	Parametric Statistics: difference test.	Synchronous Virtual Synchronous Learning via Zoom Meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.	3 x 50 minutes	The task of the group observing a problem and formulating a hypothesis is the difference in the value of two averages.	1,2,3,4,6,7

Week	Course Learning Achievement	Learning Materials	Teaching/Learning Activities	Duration	Assessment	Reference
	Indicators of CLA: <ul style="list-style-type: none"> <li>▪ Menguji hipotesis perbedaan dua nilai rata-rata</li> <li>▪ Menguji hipotesis perbedaan dua nilai persentase</li> <li>▪ Menguji hipotesis perbedaan dua nilai varians/standar deviasi</li> </ul>					
8	<b>MIDTERM EXAMS</b>					
9, 10	P4.6 : Mastering knowledge related to hypothesis testing of the relationship between variables.  Indicators of CLA: Testing the hypothesis of the relationship between two variables with parametric statistics.	Parametric statistics: relationship test	Synchronous Virtual Synchronous Learning via Zoom Meeting Virtual face-to-face via Zoom meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.	6 x 50 minutes	The task of the group observing a problem and formulating a hypothesis of the relationship between two variables.	1,2,3,4,6,7
11	P4.6 : Mastering knowledge related to hypothesis testing of the relationship between variables.	Non-parametric statistics: different test	Synchronous Virtual Synchronous Learning via Zoom Meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.	3 x 50 minutes	Group assignments and independent observations of a problem and develop hypotheses of relationships between variables.	1,2,3,4,6,7

Week	Course Learning Achievement	Learning Materials	Teaching/Learning Activities	Duration	Assessment	Reference
	Indicators of CLA: Testing the hypothesis of the relationship between two variables with nonparametric statistics.					
12, 13	P4.7 : Mastering knowledge of hypothesis testing the effect of the independent variable on the dependent variable.  Indicators of CLA: Testing the hypothesis of the effect of the independent variable on the dependent variable with nonparametric statistics.	Non-parametric statistics : relationship test.	Synchronous Virtual Synchronous Learning via Zoom Meeting  Asynchronous Self study via <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , Collaborative Asynchronous via video call WhatsApp.	6 x 50 minutes	The task of the group is to present a problem and develop a hypothesis of the influence between variables.	1,2,3,4,6,7
14, 15	P4.7 : Mastering knowledge of hypothesis testing the effect of the independent variable on the dependent variable.  Indicators of CLA: Testing the hypothesis of the effect of several independent variables on one dependent variable.	Multivariate statistics : test effect.	Synchronous Virtual Synchronous Learning via Zoom Meeting  Asynchronous Self study through classwork on <a href="http://www.spot.upi.edu">www.spot.upi.edu</a> , <a href="http://www.bps.go.id">www.bps.go.id</a> or WA Group.	6 x 50 minutes	Observation group task on a problem. Formulation of hypotheses, data collection and hypothesis testing the effect of several variables on one variable	1,2,3,4,6,7
16	<b>FINAL EXAMS</b>					



## 6. References

1. Anto Dayan, 1996, *Pengantar Metode Statistik*, Jilid I dan II. Jakarta: Penerbit LP3ES
2. Imam Ghozali, ,2005. *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
3. Singgih Santoso, 2010, *Statistik Parametrik, Konsep dan Aplikasi dengan SPSS*, Jakarta: Penerbit PT. Elex Media Komputindo.
4. Sidney Siegel, 1992, *Nonparametric Statistics for the Behavioral Sciences*, diterjemahkan oleh Zanzawi Suyuti dan Landung Simatupang, Jakarta : Gramedia Pustaka Utama,
5. Sudjana,1993, *Metode Statistika*. Bandung:Penerbit Tarsito
6. Sudjana,1996, *Statistika, untuk Ekonomi dan Niaga*. Jilid I dan II. Bandung:Penerbit Tarsito
7. Imam Ghozali, 2005. Singgih Santoso, 2010, Sidney Siegel, 1992, Sudjana,1993, Sudjana,1996,
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