# SEMESTER LESSON PLAN (RPS)

COURSES	:	S2 PEP
COURSES	:	Experiment Design
WEIGHT	:	3 credits
LECTURERS	:	Prof. Dr. Wardani Rahayu, M.Si
		Dr. Riyadi, M.Pd



POSTGRADUATE
JAKARTA STATE UNIVERSITY
2022



# JAKARTA STATE UNIVERSITY POSTGRADUATE

## SEMESTER LESSON PLAN

			(RPS)			
COURSES	CODE	WEIGHTS (CREDITS)	SEMESTER	TIN	ΛE	DATE OF DRAFTING
Experiment design		3 credits	2	16 W (March - Ju	une 2022)	April 2022
	Lecture	·s	Reviewer/C	Quality Assurance	9	Head of Study Program
AUTHORIZATION  Prof. Dr. Wardani Rahayu, M,Si			Dr. Nur	Dr. Nurjannah, M.Pd		
DESCRIPTION	This subject discusses the concept of experimental research and experimental design, the concept of acceptory validity, the design of research experiments in general, the design of treatment experiments of two or more groups, multiple comparison tests, the design of experiments of treatment of two or more factors, the design of the ekepriment of paired subjects, counterbalanced, time serie and non-experiential designs. Learning is carried out with cooperative learning models, case base learning, problem based learning. Through mastery of competencies in this course, students are expected to be able to complete a thesis in the form of experimental research in the field of education					
GRADUATE LEARNING	CPL		СРМК			SubCPMK
OUTCOMES (CPL)	Able to evaluate eduproblems, critically a and determine appromethodologies to so problems in the field.	nalyze theories opriate research lve research	I. Analyze the concept of research and experimental and external experiments according general experimental	ental design, validity of g to the	•	the nature of experimental and experiential design

	I		1
measurement, or assessment of	experimental, true-experimental		
education (CPL 1)	and quasi-experiential)		
<ol> <li>Able to apply PEP science professionally and sustainably through research, development of literacy and numeracy (CPL 2)</li> </ol>		2.	Analyze adequate or inadequate experimental desaian (pre-experimental, true-experimental and quasi-experiential) as appropriate with regard to the type of inetrnal and external validity of the experiment
		3.	Designing educational research that is in accordance with the general experimental design (pre-experimental, true-experimental and quasi-experiential)
	Analyzing the internal and external validity of the experiment	4.	Analyzing the concept of internal and external validity of experiments on experimental research
	3. Designtreatment experiments and environmental experiment designs that are in accordance with the problems of educational research and hypothesis testing	5.	Analyzing the design concept of a random two-group treatment experiment and testing its hypothesis
		6.	Analyzing the design concept of the experiment of treatment of more than two random groups and testing its hypothesis
		7.	Analyze the design concept of two or more factorial treatment experiments and test their hypotheses
		8.	Analyzing the experimental design concepts of paired subjects and their testing

3. Able to present the results of research and development in the field of PEP is contemporary with an interdisciplinary approach that is recognized nationally and globally (CPL 5)	3. Present the design of the experiments that have been made and present	<ol> <li>Analyzing the design concept of counterbalanced experiments and their testing</li> <li>Analyze the design concept of times series experiments and their testing</li> <li>Presenting the design of experiments that have been created and presenting</li> </ol>		
		12. Demonstrate an attitude of responsibility for work independently		
STUDY MATERIALS/	SUB- STUI	DY MATERIALS		
SUBJECT MATTER	/SUB-SUBJECT MATTER			
1.Konsep experimental research and	Konsep experimental research and experimental design			
experimental design				
2.Konsepement validity,	Konsep internal validity of the experir	ment,		
	The concept of external validity of the	e experiment		
3.Dessays of research excursions in	Dessays research experiments in gene	eral		
general,	,			
4. Treatment design: Dessay essay	Dessay essay ekepriment treatment of	of two or more random groups: by		
ekepriment treatment two or more	applying Post test Control Group Desi	gn		
random groups				
	Dessay essay on the treatment of two	or more random groups: by applying		
	Pree test Post test Control Grup Design			
	Dessay on the treatment of two or mo	ore random groups: The Within		
	Treatment Group (GWT)			
	research and development in the field of PEP is contemporary with an interdisciplinary approach that is recognized nationally and globally (CPL 5)  STUDY MATERIALS/ SUBJECT MATTER  1.Konsep experimental research and experimental design  2.Konsepement validity,  3.Dessays of research excursions in general,  4. Treatment design: Dessay essay ekepriment treatment two or more	research and development in the field of PEP is contemporary with an interdisciplinary approach that is recognized nationally and globally (CPL 5)  STUDY MATERIALS/ SUBJECT MATTER  1.Konsep experimental research and experimental design  2.Konsepement validity,  Konsep internal validity of the experimental research experiments in general,  4. Treatment design: Dessay essay ekepriment treatment to applying Post test Control Group Design Dessay on the treatment of two Pree test Post test Control Grup Design Dessay on the treatment of two or more present.		

	5.Uji multiple comparison,	Uji multiple comparison,				
	6.Desain experimentation of treatment of two or more factors,	Desain experimentation of two-factorial treatment (fixed, Mixed, Random) by applying Post test Control Group Design, Pree test Post test Control Group Design, GWT				
		Desain experiment treatment of three factorials (fixed, Mixed, Random) by applying Post test Control Group Design, Pree test Post test Control Group Design, GWT				
		Dessay experiment three-factor treatment				
	7. Desain Experimental Context	Dessayn ekeprimen of the environment of the subjects in pairs,				
		Desain ekeprimen environmental counterbalance				
		Dessayn environmental assessment time series				
LEARNING ACTIVITIES	Pedekatan	Student centered learning.				
	Method/strategy?model	Kooperatif cased method, project based learning.				
	Mode of activity	Online learning: Synchronous and Asyncronous models.				
	Assignment	Case analysis, group project tasks and presentations				
VALUATION	Methods/techniques	Performance Appraisal, Product Appraisal, Attitude Appraisal.				
	Instrument	Rating scale, Rubric.				
REFERENCE	Main	<ol> <li>Abdi, Herve, Betty Edelmen, Dominique Valentin &amp; W. Jay Dowing. (2009). Experimental Designand Analysis for Psychology. New York: Oxford University Press, Inc</li> <li>Cook, Thomas D., Donald T. Campbell, Quasi Experimentation. Boston: Houghton Mifflin Company, 1979.</li> </ol>				

		<ol> <li>Creswell, John W. (2007). Qualitative Inquiry &amp; Research Design: Choosing Among Five Approaches. Second Edition. Thousand Oaks, California, Sage Publication</li> <li>Kerlinger, Fred Nichols and Howard Bing Lee. (2000). Foundation of Behavioral Research. New York: Harcout College Publishers.</li> <li>Montgomery, Douglas. Design and Analysis of Experiments. New York: SAS Institute, 2013</li> <li>Toutenburg, Helge, dan Shalabh. Statistical Analysis of Designed Experimental. California: Springer, 2009</li> </ol>
	Supporter	<ol> <li>Campbell, Donald T., Julian C. Stanley. Experimental and Quasi Experimental Designs for Research. Boston: Houghton Mifflin Company, 1963</li> <li>Creswell, John W. (2014). Research Design, Qualitative, Quantitative and Mixed Methods approaches. New Delh: Sage Publication.</li> <li>Fraenkel, Jack R. How to Design and Evalution Research and Education. New York: McGraw Hill, 2009</li> <li>Johnson R. Burke, Larry Christenses. (2017). Educational Research, Quantitative, Qualitative and Mixed Approaches. New Delhi: Sage Publications India Pvt. Ltd.</li> <li>Dantes, N. (2017). Experimental Design an Data Analysis. Depok: Rajawali Press.</li> </ol>
REQUIRED COURSES	Static	

	DETAILS OF THE ACTIVITY PLAN								
Week To:	Learning Outcomes	Material (Study Material)	Success Indicators	Forms of Learning; Learning	Forms of Learning; Learning Methods; Assignment;			Assessment/ Assignment	
	(Sub-CPMK)	(coacy material)		Synchronous:	Asynchronous:	allocati		7.00.8	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	Affirming the nature of experimental research and experiential design	Konsep experimental research and experimental design	Students are able toreaffirm the nature of experimental research and experiential design	<ul> <li>Virtual face-to-face via zoom meeting:</li> <li>Students discuss experimental research materials</li> <li>Lecturer explains introduction to experimental design</li> <li>The lecturer gave an example of the design of the experimental research treatment. Students discuss drafting questions with experimental research</li> <li>Students present the results of the discussion</li> </ul>	Looking for references.     Read/explore references on experimental research and design introductions     Compose concisely	TM: 3x50'  BT: 3x120  BM: 3x120.	<ul> <li>Book 5: 10-25</li> <li>Reading text,</li> <li>Power point,</li> <li>Youtube</li> </ul>	<ul> <li>Assignment</li> <li>Structuring         questions with         experimental         research</li> <li>Presentation of         discussion results</li> <li>Performance Appraisal         at the time of         presentation</li> </ul>	

	DETAILS OF THE ACTIVITY PLAN									
Week To:	Learning Outcomes (Sub-CPMK)	Material (Study Material)	Success Indicators	Forms of Learning; Learning  Synchronous:	Methods; Assignment;  Asynchronous:	Time allocati on	Source/ Media	Assessment/ Assignment		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
2	Analyzing the concept of internal and external validity of experiments on experimental research	Internal validity of the experiment	Analyze the internal validity of the experiment Analyze the external design of an experiment	<ul> <li>Students present material on the internal validity and externality of the experiment</li> <li>Discussion of presentation results</li> </ul>	Read/dive into     references to the     internal and external     validity of     experiments	TM: 3x50'  BT: 3x120  BM: 3x120.	<ul><li>Book 5: 10-25</li><li>Reading text,</li><li>Power point,</li><li>Youtube</li></ul>	Tasks: Composing PPT  Performance Appraisal at the time of presentation		
3	Analyze adequate or inadequate experimental desaian (pre- experimental, true- experimental and quasi- experiential) as appropriate with regard to the type of inetrnal and external validity of the experiment	Dessays research experiments in general	<ul> <li>Analyzing the design of research experiments is generally adequate and inadequate</li> <li>Analyze educational research in accordance with the general experimental design (preexperimental, trueexperimental and</li> </ul>	<ul> <li>The lecturer explains the design of the experiment (pre-experimental, true-experimental and quasi-experiential)</li> <li>Discuss the results of student analysis of adequate and inadequate design related to pre-experiment, true-experiment and quasi-experiential) and determine the internal and external validital of experiments that correspond to the design</li> </ul>	Reading/delving into references to the design of research experiments is generally adequate and inadequate	TM: 3x50'  BT: 3x120  BM: 3x120.	<ul> <li>Book 5: 10-25</li> <li>Reading text,</li> <li>Power point,</li> <li>Youtube</li> </ul>	Tasks: Analyzing adequate and inadequate experimental desaian  Performance Appraisal at the time of discussion in class		

	DETAILS OF THE ACTIVITY PLAN  Week Learning Material Success Indicators Forms of Learning; Learning Methods; Assignment; Time Source/ Media Assessment/									
Week To:	Learning Outcomes	Material (Study Material)	Success Indicators	Forms of Learning; Learning	Methods; Assignment;	hods; Assignment; Time allocati		Assessment/ Assignment		
	(Sub-CPMK)			Synchronous:	Asynchronous:	on				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
			quasi- experiential)	of experimental designs (pre-experimental, true- experimental and quasi- experiential)						
4 -5	Analyzing the design concept of two or more treatment experiments and testing their hypotheses	Dessay essay on the treatment of two or more random groups: by applying Post test Control Group Design, Pre test Post test Control Group Design	<ul> <li>Lysizing the design of the treatment of two or more groups: by applying the Design Group Post test Control design</li> <li>Lysed the treatment ekepriment design of two or more random groups: by applying</li> </ul>	<ul> <li>Lecturers discuss the design of the treatment of two or more groups (Design Post test Control Group Design, Pre test Post test Control Group Design</li> <li>Lecturers give case studies</li> <li>Students discuss case studies and present the results of discussions</li> </ul>	Read/explore     references to the     design of the     treatment of two or     more groups	TM: 6x50' BT: 6x120' BM: 6x120'	<ul> <li>Book 5: 10-25</li> <li>Reading text,</li> <li>Power point,</li> <li>Youtube</li> </ul>	Assignment Improve presentation results  Performance Appraisal at the time of discussion in class		

DETAILS OF THE ACTIVITY PLAN										
Week To:	Learning Outcomes			_	Time allocati		Assessment/ Assignment			
	(Sub-CPMK)			Synchronous:	Asynchronous:	on				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
			Pree test Post test Control Grup Design      Analyze the design of treatment assessments in more than two groups: Within Treatment Group (GWT)	<ul> <li>Lecturers discuss the design of treatment principles in more than two groups: the Within Treatment Group (GWT)</li> <li>Students designed treatment assessment research in more than two groups: the Within Treatment (GWT) Group</li> <li>Students present the results of the discussion</li> </ul>	Read/explore     references to the     design of the     treatment of two or     more groups     Improving     percentage results		<ul> <li>Book 5: 10-25</li> <li>Reading text,</li> <li>Power point,</li> <li>Youtube</li> </ul>	Assignment Improve presentation results  Performance Appraisal at the time of discussion in class and Product results of improvements		
6	Analyzing the design concept of counterbalanced experiments and their testing	Uji multiple comparison,	Analyze multiple benchmarking tests		Read/explore     references on     multiple     benchmarking tests     Discussion of multiple     comparisons and			Assignment Compile multiple comparison PPT Product Assessment PPT		

	DETAILS OF THE ACTIVITY PLAN								
Week To:	Learning Outcomes	Material (Study Material)	Success Indicators	Forms of Learning; Learning		Time allocati	-	Assessment/ Assignment	
	(Sub-CPMK)			Synchronous:	Asynchronous:	on			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
					consultations with lecturers  Build multiple comparison test PPT Improving percentage results				
7				<ul> <li>Percentage of the results of the improvement of the results of the case study of the treatment assessment of two or more groups (design Post test Control Group Design, Pre test Post test Control Group Design</li> <li>The percentage of improvements in the results of the treatment assessment design design is more than two groups:</li> </ul>				Performance Appraisal at the time of percentage	

				DETAILS OF THE ACTIVITY PLA	AN			
Week To:	Learning Outcomes	Material (Study Material)	Success Indicators	dicators Forms of Learning; Learning Methods; Assignment;			Source/ Media	Assessment/ Assignment
	(Sub-CPMK)			Synchronous:	Asynchronous:	on		_
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				the Within Treatment Group (GWT)				
				Multiple comparison test percentage				
8				Midterm Exams		<u> </u>		
9-10	Analyzing the experimental design concept of two or more factorial treatments and testing their hypotheses	<ol> <li>Basic concepts         Factorial design</li> <li>Factorial design</li> <li>Factorial research         procedure</li> <li>Factorial research         design</li> <li>Fixed random         design</li> </ol>	Students are able to analyze the experimental design of the treatment of two or more factors and test the hypothesis	<ul> <li>Lecturers discussed the design of treatment principles in more than two groups: Within Treatment Group (GW experimentation of two-factorial treatment (fixed, Mixed, Random) by applying Post test Control Group Design, Pree test Post test Control Group Design, GWT)</li> <li>Students designed research methods for</li> </ul>	<ul> <li>Read/explore         references to the         design of the         treatment of two         or more groups</li> <li>Work on group         assignments</li> <li>Students in groups         discuss at LMS</li> <li>Students upload         exposure         assignments</li> <li>Lecturers monitor         student activities in         the LMS</li> </ul>	300'	Book 5: 10-25     Factorial RAL reading text     Youtube: <a href="https://www.youtube.com/watch?v=WW">https://www.youtube.com/watch?v=WW"&gt;https://www.youtube.com/watch?v=ukey7ulfiy8</a>	<ul> <li>Compiling a factorial design 2x2 (treatmen by level)</li> <li>Performance Appraisal of presentations</li> <li>Product assessment of factorial analysis</li> </ul>

				DETAILS OF THE ACTIVITY PLA	N			
Week To:	Learning Outcomes (Sub-CPMK)	Material (Study Material)	Success Indicators	Forms of Learning; Learning  Synchronous:	Methods; Assignment;  Asynchronous:	Time allocati on	Source/ Media	Assessment/ Assignment
(1)	(2)	(3)	(4)	treatment principles in two groups: the Within Treatment Group (GWT)  Students present the	(6)	(7)	(8)	(9)
11	Analyzing the experimental design concepts of paired subjects and their testing	Desain experiment treatment of three factorials (fixed, Mixed, Random) by applying Post test Control Group Design, Pree test Post test Control Group Design, GWT	Students are able to design experimental research on three-factor treatment     Students are able to analyze the experimental design of subjects in pairs and their testing	and guidance in designing experimental research on the treatment of three factorsial  Lecturers and students discussed the treatment of three factors and their problems	<ul> <li>Students arrange presentations based on the results of discussions</li> <li>Students conduct data analysis of three-factorial treatment research</li> <li>Students upload exposure assignments</li> <li>Lecturers monitor student activities in LMS</li> </ul>	150'	Books: 7, 8,     11     Youtube: <a href="https://www.youtube.com/watch?v=tjS">https://www.youtube.com/watch?v=tjS</a> 8TVsmEz0	<ul> <li>Presentation performance appraisal</li> <li>Attitude assessment</li> </ul>

				DETAILS OF THE ACTIVITY PLA	N			
Week To:	Learning Outcomes (Sub-CPMK)	Material (Study Material)	Success Indicators	Forms of Learning; Learning  Synchronous:	Methods; Assignment;  Asynchronous:	Time allocati on	Source/ Media	Assessment/ Assignment
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12	Analyzing the design concept of counterbalance experiments and their testing	<ol> <li>Counterbalance         experiment         design concept</li> <li>Counterbalance         design         implementation         steps</li> </ol>	<ul> <li>Students are able to design counterbalance type research</li> <li>Students are able to analyze data from coungterbalance type research results</li> </ul>	<ul> <li>Lecturers provide lighters for discussions related to the type of counterbalance research</li> <li>Students and discussion lecturers discuss counterbalance material</li> <li>Students present the results of the discussion with counterbalance type research</li> </ul>	<ul> <li>Students study and discuss with other students in the LMS material on counterbalance desian</li> <li>Students design counterbalance type research</li> <li>Students perform counterbalance research data analysis</li> </ul>	150'	<ul> <li>Books: 5, 7, 8, 11</li> <li>Youtube: <a href="https://www.youtube.com/watch?v=r8">https://www.youtube: https://www.youtube.com/watch?v=dF</a>         deEw8kIWE</li> </ul>	Presentation Tasks
13	Analyzing the design concept of times series experiments, multiple time series and their testing	<ol> <li>times series         experimental         design concept</li> <li>multiple times         series         experimental         design concept</li> <li>analysis with a         single-line anava</li> </ol>	<ul> <li>Students are able to design types of time series and multiple time series research</li> <li>Students are able to analyze time series and multiple time series design comparisons</li> </ul>	<ul> <li>Lecturers provide lighter materials for discussions related to time series and multiple time series designs</li> <li>Students discuss the design concepts of time series and multiple time series experiments</li> <li>Students present the results of their design and</li> </ul>	<ul> <li>Students do the task of making exposure materials</li> <li>Students discuss in groups at LMS</li> <li>Lecturers monitor student activities in the LMS</li> <li>Students upload exposure</li> </ul>	150'	<ul> <li>Books: 1, 3, 8, 11</li> <li>Yuotube: <a href="https://www.youtube.com/watch?v=qN-EPooolhY">https://www.youtube: <a href="https://www.youtube.com">https://www.youtube.com</a></a></li> </ul>	<ol> <li>Presentation         performance         appraisal</li> <li>Attitude         assessment</li> </ol>

							DETAILS OF THE ACTIVITY PLA	N					
Week To:	Learning Outcomes		Material (Study Material)	9	Success Indicators	Forms of Learning; Learning Methods; Assignment;		chods; Assignment;	Time allocati	•		Assessment/ Assignment	
	(Sub-CPMK)					3)	ynchronous:	A	synchronous:	on			
(1)	(2)		(3)		(4)		(5)		(6)	(7)	(8)		(9)
14.15	Compile and	1	pro ovpovimental		Charles to any abla		analysis of the types of time series and multiple time series experimental research		Chadanta as mulla	2007	/watch?v=13 yuoR95Vul	1	Dracontation
14-15	compile and present experimental research proposals according to the type of experiments they design and are responsible for their duties independently	<ol> <li>3.</li> <li>4.</li> </ol>	pre-experimental, true-experimental and quasi-experiential) and internal and external validital experiments that correspond to the design of experiments (pre-experimental, true-experimental and quasi-experimental research procedures Experimental research data		students are able to design and display the results of experimental design research proposals in accordance with the concept of experimental research and are responsible for their tasks independently	•	Lecturers provide direction and instructions for presentations and their assessment mechanisms Students present experimental design research design Tanya answer and Discuss against results Exposure student Students whose presentations record suggestions and input from lecturers and other students Lecturers provide presentation performance appraisals	•	students compile experimental research proposals Online discussions at LMS with other students and lecturers Reviewing proposals, after getting input / suggestions from other students and lecturers Create material for exposure to experimental research proposals Upload proposals and exposures	300'	Books: 1, 2, 3, 5, and 6	2.	Presentation performance appraisal Product assessment of experimental research proposals (rubrics)

	DETAILS OF THE ACTIVITY PLAN							
Week	Learning	Material	Success Indicators	Forms of Learning; Learning Methods; Assignment;		Time	Source/ Media	Assessment/
То:	Outcomes	(Study Material)		Synchronous:	Asynchronous:	allocati		Assignment
	(Sub-CPMK)				7.07.10.11.00.00	on		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		collection			Lecturers provide			
		techniques			product assessments			
		5. Experimental			(research proposals)			
		research data						
		analysis						
		techniques						
16	UAS							

## **ATTACHMENT**

- <u>Task Hints</u>. If there is an assignment, let alone a task in the form of a project, then it is recommended that there are task instructions so that it is clear to students.
- Scale/Rubric of task assessment, presentation or attitude

#### **WEIGHT OF ASSESSMENT**

COMPONENT	WEIGHTS (%)
Task-1	10
Task-2	10
Task-3 (case based)	15
Task-4 (case based)	15
UTS	20
UAS (project based)	30

### **GRADUATION KITERIA**

MASTERY RATE (%)	LETTER	NUMBER	INFORMATION
. ,	LETTER	NUIVIDER	INFORMATION
86 – 100	Α	4	Pass
81 - 85	A-	3,7	Pass
76 - 80	B+	3,3	Pass
71 - 75	В	3,0	Pass
66 - 70	B-	2,7	Haven't
			Graduated Yet
61 - 65	C+	2,3	Haven't
			Graduated Yet
56 - 60	С	2,0	Haven't
			Graduated Yet
51 - 55	C-	1,7	Haven't
			Graduated Yet
46 – 50	D	1	Haven't
			Graduated Yet
0 – 45	And	0	Haven't
			Graduated Yet

#### CASE ANALYSIS TASKS

#### CASE:

1. Given an article that applies the design of the treatment assessment of two or more groups (design Post test Control Group Design, Pre test Post test Control Group Design

#### Question

- What type of Research is used? What research design is used?
- How is the sampling going? Is it in accordance with the chosen design? If not, how should it be?
- Is it counterintuitive of internal validity? If not how should the researcher do?
- How is the research hypothesis? Is it in accordance with the purpose of the study?
   Describe the research hypothesis that the data used in the experimental research?
- Is the data analysis used correct? Theoretically explain the analysis of such data and test the requirements of data analysis?
- Are the conclusions of the study correct?
- Look for articles that apply the research design of two groups with different designs

INSTRUCTIONS:
Discuss in groups

Worked on at meetings, present

### **PROJECT TASKS**

Courses (credits)	Experimental Design (3 credits)
Semester	Even 2021 – 2022
Courses	S2 Educational Research and Evaluation
Tasks to:	2
Task name	
Purpose of the task	Prepare an experimental design research proposal according to the type of experimental design research
Job Description	<ul> <li>Make an experimental design research proposal, in accordance with the problems that students can identify. Choose one type of experimental design research that is in accordance with the problem to be studied.</li> <li>1. Precedence (cover, introduction, abstract, table of contents)</li> <li>2. CHAPTER 1 (background, problem identification, Problem limitations, problem rumsuan, research objectives, research benefits, and state of the art).</li> <li>3. CHAPTER 2 (toeri studies, relevant research, thinking frameworks, research hypotheses)</li> <li>4. CHAPTER 3 (place and time of research, research methods, research population and samples, research design, validity of experiments, Data collection techniques, and Data analysis techniques and analysis)</li> <li>5. Bibliography</li> <li>6. Appendix: draft research data collection instrument</li> </ul>
Time	12-13th meeting
Technical instructions	<ol> <li>Determine the research topic</li> <li>Abstract an experimental research proposal</li> <li>Determine the type of experiment design research to use</li> <li>Compiling the problems in chapter 1</li> <li>Analyze the appropriate journals</li> <li>Determine the steps2 of the research to be carried out</li> <li>Create a data collection instrument drat</li> <li>Expose experiment design proposals</li> </ol>
Assessment criteria	Project task assessment rubric

#### Note:

## Product assignment :

- 1. Experimental design research proposal
- 2. Exposure material in ppt form

# ASSESSMENT SHEET PRESENTATION

Courses:
Courses:
Semester:
Student name:
Assignment/product: presentation in a class discussion
Assessment date:

No	Assessed aspects	Weight	Shoes	Value
		(%)	(1-5)	(bobotxskor)
1	Communication skills	15		
2	Mastery of the material	30		
3	Ability to answer questions	20		
4	Media use	20		
5	Attitude/Personality (look/spirit/hospitality/cooperation	15		
Sum		100		
Avera	age value (end)			

	•			
In	+0	rm	1t -	an.
111	ΠU	'	au	on

1= very lacking

2= less

3= enough

4= good

5= excellent

n: king	
t	
	Jakarta Assessment

# ASSESSMENT SHEET PRODUCT

Courses:
Courses:
Semester :
Student name:
Tasks/products:
Assessment date:

No	Assessed aspects	Weight	Shoes	Value
		(%)	(1-5)	(bobotxskor)
1		10		
2		10		
3		10		
4		15		
5		20		
6		15		
7		20		
Sum		100		
Avera	Average value (end)			

Information:	
minor mation.	

1=	very	/ lac	king

2= less

3= enough

4= good

5= excellent

Jakarta.	Assessm	

# ASSESSMENT SHEET ATTITUDES/PERSONALITIES

Cours	es:		
Cours	es:		
Seme	ster :		
Stude	nt name:		
•	products:		
Assess	sment date:		
No	Assessed aspects	VALUE	
	. ideased superior	(1-5)	
1	Notability/participation		
2	Honesty		
3	Discipline		
4	Tangung jawab		
5	Collaborate		
AVEF	RAGE VALUE		
Inform	nation:	·	
	y lacking		
2= les			
3= en	ough		
4= go	od		
5= exc	cellent		
		Jakarta	
			sment