



**Universitas Negeri Surabaya
Vocational Faculty,
D4 Electrical Engineering Study Program**

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																
Research methodology	2030502334		T=2 P=0 ECTS=3.18	8	July 17, 2024																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator	Study Program Coordinator																																	
	Mahendra Widyartono, S.T., M.T.																																	
Learning model	Case Studies																																				
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																				
	Program Objectives (PO)																																				
	PLO-PO Matrix																																				
		P.O																																			
Short Course Description	Research Methodology contains knowledge about various types of research, scientific research steps starting from determining topics, identifying problems, reviewing literature, determining problem focus, determining variables, design and design, data collection techniques, analysis and drawing conclusions and their application in preparing the Final Project. /Thesis																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width: 10%; text-align: center;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 5%; text-align: center;">1</td> <td style="width: 5%; text-align: center;">2</td> <td style="width: 5%; text-align: center;">3</td> <td style="width: 5%; text-align: center;">4</td> <td style="width: 5%; text-align: center;">5</td> <td style="width: 5%; text-align: center;">6</td> <td style="width: 5%; text-align: center;">7</td> <td style="width: 5%; text-align: center;">8</td> <td style="width: 5%; text-align: center;">9</td> <td style="width: 5%; text-align: center;">10</td> <td style="width: 5%; text-align: center;">11</td> <td style="width: 5%; text-align: center;">12</td> <td style="width: 5%; text-align: center;">13</td> <td style="width: 5%; text-align: center;">14</td> <td style="width: 5%; text-align: center;">15</td> <td style="width: 5%; text-align: center;">16</td> </tr> </table>					P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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Supporters:																																					
Supporting lecturer	Widi Aribowo, S.T., M.T. Ayusta Lukita Wardani, S.ST., M.T.																																				
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	Understand and know the basic concepts in research, the benefits of methodology, the differences between methodology and research methods and the research process in general.	Know about basic concepts in research, the benefits of methodology, the difference between methodology and research methods and the research process in general.	Criteria: 1.The assessment criteria are carried out by looking at aspects: 2.1. Participation: carried out by observing student activities (weight 2) 3.2. UTS: carried out with an assessment during the middle of the semester (weight 2) 4.3. UAS: carried out every semester to measure all indicators (weight 3) 5.4. Task: carried out on each indicator (weight 3) 6.Student Final Grade: 7.Participation Score (2)%2 Lever Score (3)%2 UTS Score (2)%2 UAS Score (3) divided by 10.	DI, Presentation, group discussion, and reflection 2 X 50		0%
2	Understand and know the basic concepts in research, the benefits of methodology, the differences between methodology and research methods and the research process in general.	Know about basic concepts in research, the benefits of methodology, the difference between methodology and research methods and the research process in general.	Criteria: 1.The assessment criteria are carried out by looking at aspects: 2.1. Participation: carried out by observing student activities (weight 2) 3.2. UTS: carried out with an assessment during the middle of the semester (weight 2) 4.3. UAS: carried out every semester to measure all indicators (weight 3) 5.4. Task: carried out on each indicator (weight 3) 6.Student Final Grade: 7.Participation Score (2) x Lever Score (3) x UTS Score (2) x UAS Score (3) divided by 10.	DI, Presentation, group discussion, and reflection 2 X 50		0%
3	Identify problems and hypotheses	- Identifying the problem - Knowing the steps in formulating the problem - Giving an example of the problem formulation - Creating a research hypothesis	Criteria: sda	DI, Presentation and reflection 2 X 50		0%

4	Identify problems and hypotheses	- Identifying the problem - Knowing the steps in formulating the problem - Giving an example of the problem formulation - Creating a research hypothesis	Criteria: sda	DI, Presentation and reflection 2 X 50			0%
5	Reviewing literature relevant to the formulation of the problem that has been created	- Understanding the meaning of literature review - Understanding the benefits of literature review - Understanding the steps of literature review - Understanding sources of literature review - Carrying out citations or citations	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
6	Reviewing literature relevant to the formulation of the problem that has been created	- Understanding the meaning of literature review - Understanding the benefits of literature review - Understanding the steps of literature review - Understanding sources of literature review - Carrying out citations or citations	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
7	Reviewing literature relevant to the formulation of the problem that has been created	- Understanding the meaning of literature review - Understanding the benefits of literature review - Understanding the steps of literature review - Understanding sources of literature review - Carrying out citations or citations	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
8	UTS			2 X 50			0%
9	Understanding Research Design	Understand research design	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
10	Understanding Research Design	Understand research design	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
11	Understanding Research Design	Understand research design	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%

12	Understand methods, techniques and instruments in research	- Know the instruments - Know interview techniques - Know how to design questionnaires - Be able to design research	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
13	Understand methods, techniques and instruments in research	- Know the instruments - Know interview techniques - Know how to design questionnaires - Be able to design research	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
14	Can carry out qualitative and quantitative analysis	- Understanding quantitative analysis in research - Understanding qualitative analysis in research	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
15	Can carry out qualitative and quantitative analysis	- Understanding quantitative analysis in research - Understanding qualitative analysis in research	Criteria: sda	Presentation, discussion and reflection 2 X 50			0%
16	UAS			2 X 50			0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
		0%

Notes

- 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.
- 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.
- 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.
- 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.
- Forms of assessment:** test and non-test.
- 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.
- 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.
- Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- 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%.
- TM=Face to face, PT=Structured assignments, BM=Independent study.

