



**Universitas Negeri Surabaya  
Faculty of Engineering  
Civil Engineering Undergraduate Study Program**

Document Code

**SEMESTER LEARNING PLAN**

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date
---------	------	---------------	---------------	----------	------------------

Research methodology	2220104153	Compulsory Study Program Subjects	T=2 P=2 ECTS=6.36	4	July 17, 2024
----------------------	------------	-----------------------------------	-------------------	---	---------------

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Yogie Risdianto, S.T., M.T.

Learning model	Project Based Learning
----------------	------------------------

Program Learning Outcomes (PLO)	PLO study program that is charged to the course
---------------------------------	-------------------------------------------------

Program Objectives (PO)	
-------------------------	--

PO - 1	Students are able to come up with appropriate research topics, formulate problems, objectives, benefits, are able to express them in the form of scientific writing, systematically, can choose representative variables, are able to prepare appropriate instruments, choose analytical techniques, which are compiled into a research proposal.
--------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

PLO-PO Matrix	
---------------	--

	P.O
	PO-1

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																	

Short Course Description	Sensitive to facts that have the potential to cause problems, identifying and formulating problems, formulating research objectives, generating benefits, extracting expected outcomes or final results, selecting or referring to theories that are relevant to the research topic, formulating hypotheses, stating the scope of research, sampling techniques, identifying variables, mastery of instruments, data collection techniques, data processing techniques, data interpretation, and concluding research results.
--------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

References	<b>Main :</b> 1. Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Pengantar Metode Penelitian. Jakarta: UI-Press. 2. 2. Unesa. 2014. Panduan Penulisan Skripsi Unesa. Unesa Press.
	<b>Supporters:</b> 

Supporting lecturer	Prof. Dr. Erina Rahmadyanti, S.T., M.T. Dr.rer.nat. Sammy Alidrus, M.Sc.
---------------------	-----------------------------------------------------------------------------

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	The meaning of research for Civil Engineering students	Prepare yourself as a researcher	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
2	Can understand facts that have the potential to cause problems	Students can convey facts around them that have the potential to cause problems	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%

3	Write facts as background to the problem	Students can convey facts around them that have the potential to cause problems	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
4	Formulate research objectives	Students can write research objectives	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%

5	Adopt relevant theories	Can show relevant theories	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabriel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
6	Formulate a hypothesis	Students can formulate hypotheses	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabriel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%

7	Reasons for selecting variables	Students can choose the appropriate variables	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, examples of existing research 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
8	Midterm Exam (UTS)	Students can do exam questions well and correctly	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Do the questions 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	50%

9	Review literature, theoretical basis, importance/function of theory, review research results	Students can choose the appropriate reference source	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
10	Population	Students can explain the population of their proposal topic	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%

11	Sampling technique	Students can understand how to determine a representative sample	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
12	Methods of collecting data, measuring tools and how to measure it	Students can determine a suitable tool	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%

13	Methods of collecting data, measuring tools and how to measure it	Students can choose samples	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
14	Data analysis technique	Can analyze data	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i> <hr/> <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%



15	Prepare proposals	Can write proposals	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, case examples 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i>  <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	0%
16	Final Semester Examination (UAS)	Can present research proposals well and correctly	<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Research proposal presentation 4x50 minutes		<b>Material:</b> Introduction to research methods <b>References:</b> <i>Consuelo G. Sevilla, Jesus A. Ochave, Twila G. Punsalan, Bella G. Regala, Gabtiel G. Uriarte. 1993. Introduction to Research Methods. Jakarta: UI-Press. 2.</i>  <b>Material:</b> Guide to writing a thesis <b>Library:</b> <i>Unesa. 2014. Unesa Thesis Writing Guide. Unesa Press.</i>	50%

**Evaluation Percentage Recap: Project Based Learning**

No	Evaluation	Percentage
1.	Project Results Assessment / Product Assessment	100%
		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.
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** abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities 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.