	Universitas Negeri Surabaya Vocational Faculty, D4 Transportation Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Research methodology	3930103066	Methodology	T=3	P=0	ECTS=4.77	4	July 16, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	**Project Based Learning**	
Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**	
	PLO-8	Able to apply logical, critical, innovative, quality and measurable thinking in identifying, implementing and evaluating independently and coordinating groups to solve technical and non-technical problems and able to communicate verbally and in writing.
	PLO-12	Mastering principles, applications, technical references, procedures and work standards (SOP) in laboratories and studios.
	Program Objectives (PO)	
	PO - 1	Able to apply logical, critical, innovative, quality and measurable thinking in identifying, implementing and evaluating independently and coordinating groups to solve technical and non-technical problems and able to communicate verbally and in writing.
	PLO-PO Matrix	

P.O	PLO-8	PLO-12
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	The final assignment is one of the requirements for completing studies in a bachelor's or diploma program. Writing grammar courses discuss writing methods used in scientific activities. Final assignment writing activities are adjusted to the dimensions and developments of science and technology, solving existing problems in the field, using assumptions developed from theoretical studies and the results of previous studies, engineering methods to be used, sampling techniques, required instruments, instrument validation, and data analysis techniques in scientific papers as a final project. The aim of preparing the Final Assignment is that students 1. have a scientific mental attitude 2. are able to identify and formulate research or design problems based on certain rationales which are considered important and useful in terms of several aspects 3. are able to carry out research/design, starting from the preparation , implementation, to reporting 4. able to carry out quantitative and qualitative studies, as well as formulating clear conclusions 5. able to present and defend the results of the Final Assignment in an oral examination in front of a team of examining lecturers
References	**Main :**

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7. http://putracenter.net/2010/04/13/pengelolaan-infrastruktur-dan-transportasi-bandar-udara/
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9. http://satriagosatria.blogspot.com/2010/06/pengelolaan-infrastruktur-dan.html
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11. http://elib.unikom.ac.id/download.php?id=67901
12. http://mogajayatrans.com/pengertian-transportasi.html
13. Muhammad Rohmadi, dkk. 2008. Teori dan aplikasi bahasa Indonesia di perguruan tinggi. Surakarta: (UNS PERS)
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15. _____. 2006. Buku Pedoman Penulisan Tugas Akhir. Surabaya: Unipress.
16. www.uum.edu.my/pend/webpeke/ppend/lalu_lintas.pdf
17. www.walhijogja.or.id
18. www.depanri.lapan.go.id/TATA RUANG ISU 5.pdf
19. www.bappenas.go.id/get-file-server/node/6435/ UTS SISTEM TRANSPORTASI âMAKALAH SISTEM TRANSPORTASI DARAT, LAUT, UDARA, DAN KERETA API,

Supporters:	
Supporting lecturer	Dr. Ir. H. Dadang Supriyatno, M.T. Dr. Ari Widayanti, S.T., M.T. Dr. Anita Susanti, S.Pd., M.T. R. Endro Wibisono, S.Pd., 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	Have broad and deep insight into the field to be studied	Explains the perspective of science and technology in the form of scientific writing methods	**Criteria:** Perfect score if answered correctly **Form of Assessment** : Participatory Activities	Lectures, discussions, questions and answers. 2 X 50			5%
2	Able to analyze problems accurately	1. Explain the problems in "transportation" 2. Explain the problems of transportation development	**Criteria:** Perfect score if answered correctly **Form of Assessment** : Participatory Activities	Lectures, discussions, questions and answers. 2 X 50			0%
3	Able to design educational research models that are relevant in vocational schools and the world of work,	1. Explaining educational research models that are relevant in vocational schools and the world of work, 2. Determine relevant educational research models in vocational schools and the world of work	**Criteria:** Perfect score if answered correctly **Form of Assessment** : Participatory Activities	Lectures, discussions, questions and answers, and assignments 2 X 50			5%
4	Able to use appropriate theory to clarify the problem being studied	a. Explain how to cite the correct theory for the problem being studied b. Using appropriate theory to clarify the problem under study	**Criteria:** Perfect score if answered correctly **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			7%

5	Able to develop a conceptual framework/framework for thinking in educational research proposals	a. Identifying variables used in educational research b. Connect existing variables within a conceptual framework/frame of thinking	**Criteria:** Perfect score if answered correctly **Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			7%
6	Able to select and formulate problems in educational research	Explains how to choose and formulate problems in educational research	**Criteria:** Perfect score if answered correctly **Form of Assessment** : Participatory Activities	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			8%
7	Understand various types of approaches in research methods	a. Explain the various types of approaches in research methods b. Distinguish between various types of approaches in research methods c. Determine various types of approaches in research methods	**Criteria:** Perfect score if answered correctly **Form of Assessment** : Participatory Activities	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			8%
8	Understand population selection, sampling and sampling techniques	a. Selecting populations and samples for educational research b. Determining sampling techniques for educational research	**Criteria:** Perfect score if answered correctly **Form of Assessment** : Participatory Activities	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			5%
9	UTS	UTS	**Criteria:** UTS	UTS 2 X 50			0%
10	Able to determine data collection techniques, compose research instruments, and types of measurement scales,	a. Explain data collection techniques b. Develop instruments based on indicators of the aspects to be measured c. Determine the type of measurement scale	**Criteria:** Perfect score if answered correctly	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			0%
11	Able to determine data collection techniques, compose research instruments, and types of measurement scales,	a. Explain data collection techniques b. Develop instruments based on indicators of the aspects to be measured c. Determine the type of measurement scale	**Criteria:** Perfect score if answered correctly	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			0%
12	Able to present data, analyze data to answer problems and test research hypotheses	a. Create a data presentation of initial survey results b. Determine analysis based on survey data c. Formulate the hypothesis to be used (if any)	**Criteria:** Perfect score if answered correctly	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			0%
13	Determine quantitative data analysis techniques based on problem formulation	a. Explain the process of quantitative data analysis techniques b. Distinguish between the functions of descriptive and inferential analysis	**Criteria:** Perfect score if answered correctly	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			0%

14	Determine quantitative data analysis techniques based on problem formulation	a. Explain the process of quantitative data analysis techniques b. Distinguish between the functions of descriptive and inferential analysis	**Criteria:** Perfect score if answered correctly	Lectures, discussions, questions and answers, and assignments, 2 X 50 presentations			0%
15	Able to provide interpretation of research data and hypothesis testing results	Explains the interpretation of research data and hypothesis testing results	**Criteria:** Perfect score if answered correctly	Lectures, discussions, questions and answers, and presentations 2 X 50			0%
16							0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	38%
2.	Project Results Assessment / Product Assessment	7%
		45%

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** 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.
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.