	Universitas Negeri Surabaya **Faculty of Engineering,** **Mechanical Engineering Education Undergraduate Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Thesis	8320304264	Compulsory Study Program Subjects	**T=0**	**P=4**	**ECTS=6.36**	8	July 17, 2024

AUTHORIZATION	**SP Developer**	**Course Cluster Coordinator**	**Study Program Coordinator**
	Wahyu Dwi Kurniawan, S.Pd., M.Pd.	Wahyu Dwi Kurniawan, S.Pd., M.Pd.	Ir. Wahyu Dwi Kurniawan, S.Pd., M.Pd.

Learning model	**Project Based Learning**

Program Learning Outcomes (PLO)	**PLO study program that is charged to the course**	
	PLO-5	Have social competence and personality competence in mechanical engineering education
	PLO-6	Able to apply and analyze pedagogical competencies in mechanical engineering education continuously throughout life
	PLO-9	Able to carry out research in the field of mechanical engineering
	Program Objectives (PO)	
	PO - 1	Students have good morals, ethics and personality when writing their thesis
	PO - 2	Students are able to compose a thesis according to the rules of writing scientific papers
	PO - 3	Students are able to search for scientific work references that are relevant to the thesis topic
	PLO-PO Matrix	

P.O	PLO-5	PLO-6	PLO-9
PO-1			
PO-2			
PO-3			

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																
PO-2																
PO-3																

Short Course Description	Students can compose scientific papers related to research methods, learning strategies, learning evaluation, vocational school curriculum, media development, development of teaching materials, application of learning models written in the form of scientific work reports (thesis) and scientific articles

References	**Main :**
	1. Tim. 2023. Pedoman Penulisan Skripsi. Surabaya: Unipress

	Supporters:						

Supporting lecturer	Ir. Wahyu Dwi Kurniawan, S.Pd., M.Pd.						

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	Students are able to prepare research instruments	Accuracy in preparing research instruments	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research instruments **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
2	Students are able to prepare research instruments	Accuracy in preparing research instruments	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research instruments **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
3	Students validate research instruments	The research instrument was declared valid by the validator	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Validation of research instruments **References:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
4	Students are able to compile research tools	Accuracy in compiling research tools	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research tools **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
5	Students are able to compile research tools	Accuracy in compiling research tools	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research tools **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
6	Students are able to compile research tools	Accuracy in compiling research tools	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research tools **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%

No	Students are able to	Indicator	Criteria & Form of Assessment	Learning (offline)	Learning (online)	Material / Reference	Weight
7	Students are able to compile research tools	Accuracy in compiling research tools	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research tools **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
8	Students validate research tools	The research tool was declared valid by the validator	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Validation of research tools **References:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
9	Students validate research tools	The research tool was declared valid by the validator	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Validation of research tools **References:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
10	Students are able to collect research data	Research data has been collected	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research data collection **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
11	Students are able to collect research data	Research data has been collected	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Research data collection **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
12	Students are able to analyze research data	Accuracy in analyzing research data	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Data Analysis Techniques **Library:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
13	Students are able to compose Chapter IV. Results and Discussion and Chapter V. Conclusions and Suggestions	Accuracy in compiling Chapter IV and Chapter V.	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Discussion and consultation with Supervisor * 4x50	* Discussion and consultation with Supervisor * 4x50	**Material:** Results, Discussion, Conclusions, Suggestions **Literature:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%

14	Students take a thesis exam	1. Mastery of research results 2. The thesis report is received by the examining lecturer	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Thesis Exam * 4x50	* Thesis Exam * 4x50	**Material:** Results, Discussion, Conclusions, Suggestions **Literature:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress* **Material:** Thesis Examination Procedure **Reader:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	30%
15	Students revise their thesis based on input from the examining lecturer	The thesis has been revised and approved by the examining lecturer	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Thesis Exam * 4x50	* Thesis Exam * 4x50	**Material:** Thesis Examination Procedure **Reader:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%
16	Students revise their thesis based on input from the examining lecturer	The thesis has been revised and approved by the examining lecturer	**Criteria:** Assessment rubric **Form of Assessment** : Project Results Assessment / Product Assessment, Portfolio Assessment	* Thesis Exam * 4x50	* Thesis Exam * 4x50	**Material:** Thesis Examination Procedure **Reader:** *Team. 2023. Thesis Writing Guidelines. Surabaya: Unipress*	5%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Project Results Assessment / Product Assessment	52.5%
2.	Portfolio Assessment	52.5%
		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** 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.