



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
MOTORCYCLE AND SMALL MOTORCYCLE PRACTICE	8320302237		T=0	P=2	ECTS=3.18	3	July 17, 2024
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator	
	Rachmad Syarifudin Hidayatullah, S.Pd., M.Pd.; Handini Novita Sari, S.Pd., M.T.; Prof. Dr. Muhaji, S.T., M.T.; Dr. I Made Arsana, S.Pd., M.T.;		Rachmad Syarifudin Hidayatullah, S.Pd., M.Pd.			Ir. Wahyu Dwi Kurniawan, S.Pd., M.Pd.	

Learning model	Case Studies																																	
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																	
	Program Objectives (PO)																																	
	PLO-PO Matrix																																	
	<table border="1"> <tr> <td style="width: 50px; height: 30px;"></td> <td style="width: 100px; text-align: center;">P.O</td> </tr> </table>		P.O																															
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PO Matrix at the end of each learning stage (Sub-PO)	<table border="1"> <tr> <td rowspan="2" style="width: 50px; text-align: center;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 20px; text-align: center;">1</td> <td style="width: 20px; text-align: center;">2</td> <td style="width: 20px; text-align: center;">3</td> <td style="width: 20px; text-align: center;">4</td> <td style="width: 20px; text-align: center;">5</td> <td style="width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> <td style="width: 20px; text-align: center;">8</td> <td style="width: 20px; text-align: center;">9</td> <td style="width: 20px; text-align: center;">10</td> <td style="width: 20px; text-align: center;">11</td> <td style="width: 20px; text-align: center;">12</td> <td style="width: 20px; text-align: center;">13</td> <td style="width: 20px; text-align: center;">14</td> <td style="width: 20px; text-align: center;">15</td> <td style="width: 20px; 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	16
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1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																		

Short Course Description	This course is an introduction to theoretical and practical understanding of the main components of motorbikes and how they work, tune-up, engine servicing which includes the ignition system, fuel system, cooling system and lubrication system, braking system and motorbike overhaul. .
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References	<p>Main :</p> <ol style="list-style-type: none"> Daryanto. Buku ajar praktek sepeda motor PT. INDOHERO, Pedoman Reparasi Mesin Seri K, Jakarta: PT. TAM, 1981 pp. 1-28 Manual Book Sepeda motor Honda Jakarta, Muhaji, 2007. Petunjuk praktik Sepeda motor, Surabaya. University Press Unesa Referensi lain yang relevan <p>Supporters:</p>
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Supporting lecturer	Prof. Dr. I Made Arsana, S.Pd., M.T. Rachmad Syarifudin Hidayatullah, S.Pd., M.Pd.
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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 understand the RPS, SOP for conducting lectures, and assessment mechanisms	Students understand the SOP for practical lectures on motorbikes and small motorbikes	<p>Criteria: non-test</p> <p>Form of Assessment : Participatory Activities</p>	Discovery learning/Project based learning 6 X 50		<p>Material: Explaining RPS</p> <p>References: Other relevant references</p>	5%

2	Students can adjust valves according to SOP	<ol style="list-style-type: none"> 1. Students can look for tip top 2. students can check the valve clearance 3. students can provide a valve gap assessment 4. students can adjust the valve gap 	<p>Criteria: Non test</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: Valve adjustment for 4 stroke motorbikes</p> <p>Reference: <i>Honda Motorcycle Manual Book Jakarta,</i></p>	5%
3	Students can service conventional fuel system motorbikes according to the SOP	Students can carry out the stages of servicing non-injection motorbikes according to SOP	<p>Criteria: non-test</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: carburetor motorbike servicing</p> <p>Reference: <i>Muhaji, 2007. Practical instructions for motorbikes, Surabaya. Unesa University Press</i></p>	5%
4	Students can service electronic fuel system motorbikes according to the SOP	Students can carry out the stages of servicing an injection motorbike according to the SOP	<p>Criteria: Numbers 0-100</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: injection motor service</p> <p>Reference: <i>Other relevant references</i></p>	5%
5	Students can reset the injection system according to the SOP	<ol style="list-style-type: none"> 1. students can install dlc sockets 2. Students can reset the ECU according to the SOP 	<p>Criteria: attached</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment, Practical Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: ecu reset</p> <p>References: <i>Other relevant references</i></p>	5%
6	Perform electrical system servicing on motorbikes	<ol style="list-style-type: none"> 1. Students can check electrical networks using AVO 2. Students can make repairs to electrical systems 	<p>Criteria: non-test</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: motorbike electrical system</p> <p>References: <i>Other relevant references</i></p>	5%
7	Students can service automatic transmission motorbikes	Students can carry out the stages of servicing the CVT system according to SOP	<p>Criteria: non-test</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: motorcycle CVT maintenance</p> <p>References: <i>Other relevant references</i></p>	5%
8	UTS	UTS	<p>Criteria: Attached</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment, Tests</p>	6 X 50 Competency Test		<p>Material: motorbike servicing according to SOP</p> <p>Reference: <i>Other relevant references</i></p>	10%

9	Students can practice motorbikes at DU/DI	Students can carry out Du/DI work orders according to industry standards	Criteria: Attached Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment	Discovery learning/Project based learning 9 X 50		Material: motorbike servicing References: <i>Other relevant references</i>	5%
10	Students can practice motorbikes at DU/DI	Students can carry out Du/DI work orders according to industry standards	Criteria: Attached Form of Assessment : Project Results Assessment / Product Assessment	Discovery learning/Project based learning 6 X 50		Material: motorbike servicing References: <i>Other relevant references</i>	5%
11	Students can practice motorbikes at DU/DI	Students can carry out Du/DI work orders according to industry standards	Criteria: Non test Form of Assessment : Project Results Assessment / Product Assessment	Discovery learning/Project based learning 6 X 50		Material: motorbike servicing References: <i>Other relevant references</i>	5%
12	Students can practice motorbikes at DU/DI	Students can practice motorbikes well	Criteria: Non test Form of Assessment : Project Results Assessment / Product Assessment	Discovery learning/Project based learning 6 X 50		Material: motorbike servicing References: <i>Other relevant references</i>	5%
13	Students can practice motorbikes at DU/DI	Students can practice motorbikes well	Criteria: Attached Form of Assessment : Practical Assessment	Discovery learning/Project based learning 6 X 50		Material: motorbike servicing References: <i>Other relevant references</i>	5%
14	Students can disseminate work practice reports independently using ppt	Students can disseminate practical reports in industry well	Criteria: attached Form of Assessment : Assessment of Project Results / Product Assessment, Practices / Performance	Discovery learning/Project based learning 6 X 50		Material: motorbike service Reference:	10%
15	Students can carry out cheap services in public places	1.students get a minimum of 25 motorbike customers 2.Consumers are satisfied with motorbikes that have been tuned-up by students	Criteria: non-test Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment, Practice / Performance	Discovery learning/Project based learning 6 X 50		Material: motorbike servicing References: <i>Other relevant references</i>	5%
16	UAS	Students can take tests according to the SOP	Criteria: test Form of Assessment : Project Results Assessment / Product Assessment, Practice / Performance, Test	Discovery learning		Material: services Bibliography: <i>Other relevant references</i>	15%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	5%
2.	Project Results Assessment / Product Assessment	51.67%
3.	Portfolio Assessment	4.17%
4.	Practical Assessment	19.17%
5.	Practice / Performance	11.67%
6.	Test	8.33%
		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.**