



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																																																														
Gasoline Motorcycle Practice	8320302242		T=0 P=2 ECTS=3.18	3	July 17, 2024																																																														
AUTHORIZATION	SP Developer		Course Cluster Coordinator		Study Program Coordinator																																																														
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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																																																																	
	PO Matrix at the end of each learning stage (Sub-PO)																																																																		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">P.O</th> <th colspan="16">Week</th> </tr> <tr> <td></td> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>																P.O	Week																	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																	
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Short Course Description	Tune up, disassemble, measure and find out how gasoline motorbike components work, including: cooling system, lubrication, fuel, ignition, and how to overcome problems if problems occur.																																																																		
References	Main :																																																																		
	1. Toyota. 1985. Manual MotorBensin Toyota 2K, 3K, dan 4K. Manual MotorBensin Daihatsu Espass. ManualMotor Bensin Suzuki. 2. Toyota Manual BOOK																																																																		
	Supporters:																																																																		
Supporting lecturer	Prof. Dr. Muhaji, S.T., M.T. Saiful Anwar, S.Pd., M.T. Prof. Dr. I Made Arsana, S.Pd., M.T. Dr. Warju, S.Pd., S.T., M.T. Rachmad Syarifudin Hidayatullah, 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 understand the RPS, SOP for conducting lectures, and assessment mechanisms	A) Students can explain how to assess, B) Students can explain assignments and evaluation methods,	Criteria: non-test Form of Assessment : Participatory Activities	Discovery learning/Project based learning 6 X 50		Material: delivering soup Reader: Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.	1%
2	Students can disassemble the distributor and determine the ignition timing according to the SOP	Students can carry out the practice of removing the distributor, looking for top points 1, 2, 3, 4, installing the distributor on the engine, looking for the ignition point according to the SOP within the specified time	Criteria: attached Form of Assessment : Project Results Assessment / Product Assessment	Discovery learning/Project based learning 6 X 50		Material: Releasing a distributor, looking for a top position Reader: Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.	6%
3	Students can adjust the platinum according to the SOP	Students can practice removing the distributor, looking for top points 1, 2, 3, 4, installing the distributor on the engine, looking for the ignition point according to the SOP within the specified time	Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions Form of Assessment : Project Results Assessment / Product Assessment	Discovery learning/Project based learning 6 X 50		Material: determine the ignition point according to SOP Reader: Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.	5%
4	Students can adjust valves according to SOP	Students can carry out valve adjustment practices, in top 1, 2, 3, 4, carry out an in-depth analysis of the effect of valve gap size on compression using a compression tester in accordance with the SOP	Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions Form of Assessment : Project Results Assessment / Product Assessment	Discovery learning/Project based learning 6 X 50		Material: Valve adjustment according to SOP Reader: Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.	5%

5	Students can tune-up the injection system according to the SOP	Students can carry out disassembly, check component conditions, analysis, repair, assembly according to the SOP within the specified time	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: injection system</p> <p>Reference: <i>Toyota Manual BOOK</i></p>	5%
6	Flasing combustion chamber	Students can clean the combustion chamber according to the SOP	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Form of Assessment : Assessment of Project Results / Product Assessment, Practices / Performance</p>	Discovery learning/Project based learning 6 X 50		<p>Material: Cleaning the combustion chamber</p> <p>Reference: <i>Toyota Manual BOOK</i></p>	5%
7	Students can check the cooling and lubrication systems for petrol motorbikes according to the SOP	Students can carry out disassembly, check component conditions, analysis, repair, assembly according to the SOP within the specified time	<p>Criteria: 1. Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions 2.5</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: engine cooling system</p> <p>Reference: <i>Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.</i></p>	5%

8	UTS	Students can carry out ignition system competency according to the SOP within the specified time	<p>Criteria:</p> <p>1.If the work results are in accordance with the SOP and the specified time = 100. If the work is in accordance with the SOP but does not comply with the specified time = 70.</p> <p>2.If the work is in accordance with the specified time but not in accordance with the SOP = 50. If the work is not in accordance with the SOP and the specified time = 30</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Practice / Performance, Test</p>	Structured practice, brain stomping, scientific, direct instruction, problem based instruction 6 X 50		<p>Material: students can complete the job according to the provisions of the Library: <i>Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.</i></p>	15%
9	Students can practice petrol motorbikes at DU/DI	Students can work on the job sheet according to the SOP within the specified time	<p>Criteria: If the work does not comply with the SOP and the specified time = 30</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: doing work according to Jon in the industry. Reference: <i>Toyota Manual BOOK</i></p>	5%
10	Students can practice petrol motorbikes at DU/DI	Students can complete the job sheet according to the SOP within the specified time	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: doing work according to Jon in the industry. Reference: <i>Toyota Manual BOOK</i></p>	5%
11	Students can practice petrol motorbikes at DU/DI	Students can read and carry out simulation practices in using measuring instruments according to the SOP within the specified time	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: doing work according to Jon in the industry. Reference: <i>Toyota Manual BOOK</i></p>	5%

12	Students can practice petrol motorbikes at DU/DI	Students carry out practice in industry according to the provisions	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: doing work according to Jon in the industry. Reference: <i>Toyota Manual BOOK</i></p>	5%
13	Students can practice petrol motorbikes at DU/DI	Students carry out practice in industry according to the provisions	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Form of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: doing work according to Jon in the industry. Reference: <i>Toyota Manual BOOK</i></p>	5%
14	Students can disseminate practice reports at DU/DI	Students can assemble gasoline motorbike components according to the SOP within the specified time	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Portfolio Assessment, Practice / Performance</p>	Discovery learning/Project based learning 6 X 50		<p>Material: report presentation Reference: <i>Toyota Manual BOOK</i></p>	5%
15	Students and dismantle and install timing gear according to SOP	Students can assemble petrol motorbike components, adjust them according to the SOP within the specified time	<p>Criteria: Report format: Title, objectives, tools and materials, theoretical study, work safety, work steps, practicum results data, data analysis, conclusions</p> <p>Forms of Assessment : Project Results Assessment / Product Assessment, Practical Assessment</p>	Discovery learning/Project based learning 6 X 50		<p>Material: timing gear installation Reference: <i>Toyota Manual BOOK</i></p>	5%
16	UAS	Students can carry out work orders according to the provisions	<p>Form of Assessment : Project Results Assessment / Product Assessment, Practice / Performance, Test</p>	Discovery learning/ Project based learning		<p>Material: service Library: <i>Toyota. 1985. Toyota 2K, 3K, and 4K Gasoline Motorcycle Manual. Daihatsu Espass Gasoline Motorcycle Manual. Suzuki Gasoline Motorcycle Manual.</i></p>	18%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	1%
2.	Project Results Assessment / Product Assessment	53.67%
3.	Portfolio Assessment	14.17%
4.	Practical Assessment	5%
5.	Practice / Performance	15.17%
6.	Test	11%
		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.