

## Universitas Negeri Surabaya Faculty of Engineering, Mechanical Engineering Education Undergraduate Study Program

Document Code

## SEMESTER LEARNING PLAN

Courses				CODE		Course Fa	amily		Cred	lit We	ight	SEMESTER	Compilation Date
Vehicle C Stability	Cons	truction and		83203022	33				T=2	P=0	ECTS=3.18	6	July 17, 2024
AUTHOR	IZAT	ION		SP Devel	oper	•		Cours	e Clu	ster C	oordinator	Study Progr Coordinator	am
												Ir. Wahyu Dwi Kurniawan, S.Pd., M.Pd.	
Learning model		Case Studies											
Program	ı	PLO study p	r <mark>ogr</mark> a	ım that is	charged to	the course	<b>;</b>						
Learning	) es	Program Obj	ectiv	es (PO)									
(PLO)		PLO-PO Mati	rix										
			P.O										
		PO Matrix at	the e	end of eac	h learning s	tage (Sub-	PO)						
			ł	P.O					Week	(			
				1	2 3 4	5 6	7	8	9	10	11 12	13 14	15 16
Short Course Descript	ion	Understanding characteristics steering syster	, vehi	cle aerody	namic loads, v	vehicle brak	nicle a ke syst	ccident tems, v	s, boc ehicle	ly stru direc	cture develo tional behavi	pment, vehicle or or vehicle s	dynamics, tire tability, vehicle
Reference	ces	Main :											
					010. Teknolog as Teknik Univ					dya Pr	inting.		
		Supporters:											
Support lecturer	ing	Agung Prijo Bu	idijono	o, S.T., M. <sup>-</sup>	Г.								
Week-	eac sta	al abilities of h learning ge b-PO)	h-		valuation	Form	04	Lear Stude E	ning i nt Ass stimat	ed tin	ds, ents, ne]	Learning materials References	Assessment Weight (%)
	(Cu		in	dicator	Criteria &	Form	Offli offli		0	nine	( online )	]	
(1)		(2)		(3)	(4)		(5	5)		(	6)	(7)	(8)

1	Explain the main components of a vehicle	1. Students can explain the components of a power generator. 2. Students can explain the chassis frame components. 3. Students can explain body components. 4. Students can explain the components of a power distributor. 5. Students can explain the components of a power distributor. 5. Students can explain the components of a power distributor. 5. Students can explain the suspension system. 8. Students can explain the suspension system. 8. Students can explain the components. 7. Students can explain the suspension system. 8. Students can explain the components of safety and direction stabilization. 9. Students can explain the role of the vehicle industry. 10. Students can explain the impact of accidents on vehicles.	Criteria: 1.Activeness in class 2.Compliance with the answer key	Scientific, Discussion, Cooperative, Lecture, Practice questions 2 X 50			0%
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2	Explain the main components of a vehicle	1. Students can explain the	Criteria: 1.Activeness in	Scientific, Discussion,		0%
		components of a power	class 2.Compliance with	Cooperative, Lecture, Practice		
		generator. 2. Students can explain	the answer key	questions 2 X 50		
		the chassis frame		2 / 00		
		components. 3. Students				
		can explain body components.				
		<ol> <li>Students can explain</li> </ol>				
		the components				
		of a power distributor. 5. Students				
		can explain the				
		components of movement				
		influence. 6. Students				
		can explain brake components.				
		7. Students can explain				
		the suspension				
		system. 8. Students can explain				
		the components				
		of safety and direction stabilization.				
		9. Students can explain				
		the role of the vehicle				
		industry. 10. Students can explain				
		the impact of accidents on				
		vehicles.				

distributor. 5. Students can explain the components of movement influence. 6. Students can explain brake components. 7. Students can explain the suspension system 8. Students can explain the components. 9. Students can explain the components of safety and direction stabilization. 9. Students can explain the role of the vehicle industry. 10. Students can explain the impact of accidents on vehicles.	5. Stuc can ex the compo of moven influen Studer can ex brake compo 7. Stuc can ex the susper system Studer can ex the susper can ex the susper system Studer can ex the susper system Studer stabili 9. Stuc can ex the susper system Studer can ex the susper system Studer stabili Studer stabili Studer stabili Studer stabili Studer stabili Studer St	plain       1. Activeness in class         nents       class         wer       2. Compliance with the answer key         ts       plain         issis       1. Activeness in class         2. Compliance with the answer key       the answer key         issis       1. Activeness in class         plain       1. Activeness in class         issis       2. Compliance with the answer key         issis       1. Activeness in class         nents.       plain         nents       nents         oplain       nents         nents       nents         plain       nents         nents       nents         plain       nents         nents       nents         plain       nents         nents       nents         plain       nents         plain       nents         of       n         nents       n         nation       n <t< th=""><th>Scientific, Discussion, Cooperative, Lecture, Practice questions 2 X 50</th><th></th><th></th><th>0%</th></t<>	Scientific, Discussion, Cooperative, Lecture, Practice questions 2 X 50			0%
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4	Explain the main components of a vehicle	1. Students can explain the components of a power generator. 2. Students can explain the chassis frame components. 3. Students can explain body components. 4. Students can explain the components of a power distributor. 5. Students can explain the components of a power distributor. 5. Students can explain the components of a const of a power distributor. 5. Students can explain the components of scan explain the components of . Students can explain the components. 7. Students can explain brake components. 7. Students can explain the suspension	Criteria: 1.Activeness in class 2.Compliance with the answer key	Scientific, Discussion, Cooperative, Lecture, Practice questions 2 X 50		0%
		components. 7. Students can explain the				

components of a vehicle vehicle vehicle vehicle c c c c c c c c c c c c c c c c c c	<ul> <li>1. Students can explain the components.</li> <li>3. Students can explain the chassis frame components.</li> <li>3. Students can explain the chassis frame components.</li> <li>4. Students can explain the components of a power distributor.</li> <li>5. Students can explain the components of a power distributor.</li> <li>5. Students can explain the suspension system. 8. Students can explain the components of safety and direction stabilization.</li> <li>9. Students can explain the role of the vehicle industry. 10. Students can explain the role of the vehicles.</li> </ul>	Scientific, Discussion, Cooperative, Lecture, Practice questions 2 X 50			0%
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6	Explain the main components of a	1. Students can explain	Criteria:	Scientific,		0%
	vehicle	the components	1.Activeness in class	Discussion, Cooperative,		
		of a power	2.Compliance with	Lecture, Practice		
		generator. 2. Students	the answer key	questions		
		can explain the chassis		2 X 50		
		frame components.				
		<ol><li>Students</li></ol>				
		can explain body				
		components. 4. Students				
		can explain the				
		components				
		of a power distributor.				
		5. Students can explain				
		the components				
		of movement				
		influence. 6. Students				
		can explain				
		brake components.				
		<ol> <li>Students can explain</li> </ol>				
		the suspension				
		system. 8.				
		Students can explain				
		the components				
		of safety and direction				
		stabilization. 9. Students				
		can explain the role of				
		the vehicle				
		industry. 10. Students				
		can explain the impact of				
		accidents on vehicles.				

7	Explain the main	1. Students	Criteria:	Scientific,		0%
	components of a vehicle	can explain the	1.Activeness in class	Discussion, Cooperative,		
		components of a power	2.Compliance with	Lecture,		
		generator. 2. Students	the answer key	Practice questions		
		can explain		2 X 50		
		the chassis frame				
		components. 3. Students				
		can explain body				
		components.				
		4. Students can explain				
		the components				
		of a power distributor.				
		5. Students can explain				
		the				
		components of				
		movement influence. 6.				
		Students can explain				
		brake components.				
		<ol><li>Students</li></ol>				
		can explain the				
		suspension system. 8.				
		Students can explain				
		the components				
		of safety and				
		direction stabilization.				
		9. Students can explain				
		the role of the vehicle				
		industry. 10. Students				
		can explain				
		the impact of accidents on				
		vehicles.				

1						
8	MIDTERM	1. Students	Criteria:	Closed		0%
	EXAM	can explain	Compliance with	Exam		
		the	the answer key	2 X 50		
		components				
		of a power				
		generator. 2.				
		Students				
		can explain				
		the chassis				
		frame				
		components. 3. Students				
		<ol><li>Students</li></ol>				
		can explain				
		body				
		components.				
		<ol><li>Students</li></ol>				
		can explain				
		the				
		components				
		of a power				
		distributor.				
		5. Students				
		can explain				
		the				
		components				
		of				
		movement				
		influence. 6.				
		Students				
		can explain				
		brake				
		components.				
		7. Students				
		can explain				
		the				
		suspension				
		system. 8. Students				
		can explain the				
		components				
		of safety and				
		direction				
		stabilization.				
		9. Students				
		can explain			1	
		the role of				
		the vehicle				
		industry. 10.				
		Students				
		can explain				
		the impact of				
		accidents on				
		vehicles.				
1	1	1	1	1	1	

9       Explain the main components of a power generator. 2. Students can explain the chassis can explain the components of a power distributor. 5. Students can explain the suspension system. 8. Students can explain the suspension system. 8. Students can explain the the suspension system. 8. Students can explain the the suspension system. 9. Students can explain the the suspension system. 9. Students can explain the the suspension statilization. 9. Students can explain the components of safety and direction accidents on statilization. 9. Students can explain the components of safety and the the suspension statilization. 9. Students can explain the subjection statilization. 9. Students can explain the subjection statilization. 9. Students can explain the methic can explain the methic suspension statilization. 9. Students can explain the subjection statilization. 9. Students can explain the methic subjection statilization. 9. Students can explain the subjection statilization. 9. Students can explain the subjection statilization. 9. Students can explain the methic suspension statilization. 9. Students can explain the methic subjection statilization. 9. Students can explain the methic subjection statilization statilizatio	0%
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10	Explain the main components of a vehicle	1. Students can explain the	Criteria: 1.Activeness in class	Scientific, Discussion, Cooperative,		0%
10	components of a	can explain the components of a power generator. 2. Students can explain the chassis frame components. 3. Students can explain body components. 4. Students can explain the components of a power distributor. 5. Students can explain the components of a pomer distributor.		Discussion,		0%
		movement influence. 6. Students can explain brake components. 7. Students can explain the suspension system. 8. Students can explain the components of safety and direction stabilization. 9. Students can explain the role of the vehicle industry. 10. Students can explain				
		the impact of accidents on vehicles.				

11	Explain the main components of a	1. Students can explain	Criteria: 1.Activeness in	Scientific, Discussion,		0%
	vehicle	the components of a power	class 2.Compliance with	Cooperative, Lecture,		
		generator. 2. Students	the answer key	Practice questions		
		can explain the chassis		2 X 50		
		frame components.				
		3. Students can explain				
		body components. 4. Students				
		can explain				
		components of a power				
		distributor. 5. Students				
		can explain the components				
		of movement				
		influence. 6. Students				
		can explain brake components.				
		7. Students can explain				
		the suspension				
		system. 8. Students				
		can explain the components				
		of safety and direction				
		stabilization. 9. Students				
		can explain the role of				
		the vehicle industry. 10. Students				
		can explain the impact of				
		accidents on vehicles.				

12 Explain the main 1. Students Criteria: Scientific,	00/
components of a vehicle       can explain the components of a power distributor.       1. Activeness in class       Discussion, Cooperative, Lecture, Practice questions         2. Students can explain the chassis frame components.       3. Students       2. Kompliance with the answer key       Discussion, Cooperative, Lecture, Practice questions         3. Students can explain the chassis frame components.       3. Students       2. Kompliance with the answer key       Discussion, Cooperative, Lecture, Practice questions         0. Students can explain the components.       3. Students       2. Kompliance with the answer key       Discussion, Cooperative, Lecture, Practice, Practi	0%

13       Explain the main components of a vehicle       1. Students can explain the components of a power generator. 2. Students can explain the chassis frame components. 3. Students can explain body components. 4. Students can explain body components. 5. Students can explain the components. 5. Students can explain body       Criteria:       1. Activeness in class       0%	components of a vehicle       can explain to components of a power generator. 2. Students can explain the chasis frame components. 3. Students can explain the chasis frame components. 4. Students can explain the chasis of a power distributor. 5. Students can explain the components. 7. Students can explain the components. S. Students can explain the components of a power distributor. 5. Students can explain the components. 7. Students can explain the components. 9. Students can explain the state applain the students can explain the state applain the state applain the students can explain the state applain the students can explain the stude
the       components         of       movement         influence. 6.       Students         can explain       brake         components.       7. Students         can explain       the         suspension       system 8.         Students       can explain         the       suspension         system 8.       Students         can explain       the         suspension       system 8.         Students       can explain         the       suspension         system 8.       Students         can explain       the         stabilization.       9. Students         stabilization.       9. Students	the role of the vehicle industry. 10. Students can explain the impact of accidents on vehicles.

14	Explain the main components of a vehicle	1. Students can explain the components	Criteria: 1.Activeness in class 2.Compliance with	Scientific, Discussion, Cooperative, Lecture,		0%
		of a power generator. 2. Students can explain the chassis frame components. 3. Students	the answer key	Practice questions 2 X 50		
		can explain body components. 4. Students can explain the				
		components of a power distributor. 5. Students can explain the components				
		of movement influence. 6. Students can explain brake				
		components. 7. Students can explain the suspension system. 8.				
		Students can explain the components of safety and direction stabilization. 9. Students				
		can explain the role of the vehicle industry. 10. Students can explain				
		the impact of accidents on vehicles.				

15	Explain the main components of a vehicle	1. Students can explain the components of a power generator. 2. Students can explain the chassis frame components. 3. Students can explain body components. 4. Students can explain the	Criteria: 1.Activeness in class 2.Compliance with the answer key	Scientific, Discussion, Cooperative, Lecture, Practice questions 2 X 50		0%
		the components of a power distributor. 5. Students can explain the components of movement influence. 6. Students can explain brake components. 7. Students can explain the suspension system. 8. Students can explain the components of safety and direction stabilization. 9. Students can explain the role of the vehicle industry. 10. Students of accidents on				
16		vehicles.				0%

Evaluation Percentage Recap: Case Study
No Evaluation Percentage

INU	T CICCILLAGE
	0%

Notes

- 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.