



**Universitas Negeri Surabaya
Vocational Faculty,
D4 Mechanical Engineering Study Program**

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date																																
K3 and Environmental Pollution	99992140102022		T=2	P=0	ECTS=3.18	2	July 17, 2024																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator			Study Program Coordinator																																	
	Dyah Riandadari		Dyah Riandadari			Arya Mahendra Sakti, S.T., M.T.																																	
Learning model	Case Studies																																						
Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																						
	PLO-3	Develop logical, critical, systematic and creative thinking in carrying out specific work in their field of expertise and in accordance with work competency standards in the field concerned																																					
	PLO-4	Develop yourself continuously and collaborate.																																					
	Program Objectives (PO)																																						
	PLO-PO Matrix																																						
		<table border="1" style="margin: auto;"> <tr> <td style="width: 15%;">P.O</td> <td style="width: 15%;">PLO-3</td> <td style="width: 15%;">PLO-4</td> <td colspan="4"></td> </tr> </table>						P.O	PLO-3	PLO-4																													
P.O	PLO-3	PLO-4																																					
PO Matrix at the end of each learning stage (Sub-PO)																																							
	<table border="1" style="margin: auto;"> <tr> <td rowspan="2" style="width: 10%;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 5%;">1</td> <td style="width: 5%;">2</td> <td style="width: 5%;">3</td> <td style="width: 5%;">4</td> <td style="width: 5%;">5</td> <td style="width: 5%;">6</td> <td style="width: 5%;">7</td> <td style="width: 5%;">8</td> <td style="width: 5%;">9</td> <td style="width: 5%;">10</td> <td style="width: 5%;">11</td> <td style="width: 5%;">12</td> <td style="width: 5%;">13</td> <td style="width: 5%;">14</td> <td style="width: 5%;">15</td> <td style="width: 5%;">16</td> </tr> </table>						P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
P.O	Week																																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																							
Short Course Description	This course is for understanding: Occupational Safety and Health (K3), K3 as a Multi-Discipline, Factors that influence K3, Causes of Occupational Accidents, Work Accident Prevention Techniques, Principles of Increasing K-3 Awareness among Employees, Fire Hazard Prevention System and Analysis of Work Accidents, Occupational Diseases, and Environmental Pollution (Air Pollution, Water Pollution and Soil Pollution)																																						
References	Main :																																						
	1. PP No.13 Tahun 2003. dan Undang-undang K-3. Suma 19mur. 1995. Keselamatan Kerja dan Pencegahan Kecelakaan. Anizar. 2009. Teknik Keselamatan dan Kesehatan Kerja di Industri. Banet Silalahi. 1995. Manajemen K-3																																						
	Supporters:																																						
Supporting lecturer	Dyah Riandadari, S.T., M.T. Dr. Warju, S.Pd., S.T., 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	Able to understand the Basic Laws of K-3 and the History of its Development	Can explain Law No. 13 concerning Work Accidents	<p>Criteria:</p> <p>1.100 marks if all answers are correct (100%) 70 marks if any answers are wrong</p> <p>2.30%, 50 marks if there is a wrong answer 50%</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
2	Able to understand K-3 as a Multi-Discipline	Can explain K-3 as Multi-Disciplinary	<p>Criteria:</p> <p>100 marks if all answers are correct (100%) 70 marks if 30% of the answers are wrong, 50 marks if 50% of the answers are wrong</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
3	Able to understand the influencing factors in K-3	Can explain the influence of human, equipment and environmental factors in implementing K3	<p>Criteria:</p> <p>1.100 marks if all answers are correct (100%) 70 marks if any answers are wrong</p> <p>2.30%, 50 marks if there is a wrong answer 50%</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
4	Able to understand the K-3 Management Principles and Systems	Can explain management and operational policies, work performance and explain unsafe (unsafe) actions and conditions	<p>Criteria:</p> <p>1.100 marks if all answers are correct (100%), 70 marks if any answers are wrong</p> <p>2.30%, 50 marks if there is a wrong answer 50%</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			0%
5	Able to understand the causes of work accidents	Can explain the causes of work accidents	<p>Criteria:</p> <p>100 marks if all answers are correct (100%) 70 marks if 30 % of the answers are wrong Mark 50 if 50 % of the answers are wrong</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			0%
6	Able to understand work accident prevention techniques	Can explain hardware aspects in accident prevention	<p>Criteria:</p> <p>100 marks if all answers are correct (100%), 70 marks if there are 30% wrong answers, 50 marks if there are 50% wrong answers</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			0%
7	Able to Understand Work Accident Prevention Techniques (Continued)	Can explain hardware aspects in accident prevention	<p>Criteria:</p> <p>100 marks if all answers are correct (100%) 70 marks if there are 30 wrong answers 50 % if there are 50 % wrong answers</p> <p>Form of Assessment : Participatory Activities</p>	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
8	MIDDLE SEMESTER EXAMINATION (UTS)	Able to explain the meaning of Occupational Safety and Health (K3), K3 as a Multi-Discipline, Factors that influence K3, Environmental Pollution, Causes of Work Accidents	<p>Criteria: COMPATIBILITY WITH ANSWER KEY</p> <p>Form of Assessment : Test</p>	MIDDLE SEMESTER EXAMINATION (UTS) 2 X 50			20%

9	Able to understand the basics of increasing K-3 awareness among employees	Can explain the main points of efforts to increase K-3 Awareness in the Employee Environment	Criteria: 1.100 marks if all answers are correct (100%) 70 marks if any answers are wrong 2.30%, 50 marks if there is a wrong answer 50% Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
10	Able to understand the Fire Hazard Prevention System	Can explain about Fire Danger Signals and Fire Fighting Systems	Criteria: 1.100 marks if all answers are correct (100%) 70 marks if any answers are wrong 2.30 % Score 50 if there is a wrong answer 50 % Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
11	Able to understand work accident analysis	Can explain losses that occur in work accidents and can explain statistics on work accidents and occupational diseases	Criteria: 1.100 marks if all answers are correct (100%) 70 marks if any answers are wrong 2.30%, 50 marks if there is a wrong answer 50% Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
12	Able to understand about Environmental Pollution	Can explain about air pollution.	Criteria: 100 marks if all answers are correct (100%) 70 marks if 30 % of the answers are wrong Mark 50 if 50 % of the answers are wrong Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			0%
13	Able to understand about Environmental Pollution	Can explain about air pollution. (Advanced)	Criteria: 100 marks if all answers are correct (100%) 70 marks if 30 % of the answers are wrong Mark 50 if 50 % of the answers are wrong Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
14	Able to understand about Environmental Pollution	Can explain about Water Pollution	Criteria: 100 marks if all answers are correct (100%) 70 marks if 30 % of the answers are wrong Mark 50 if 50 % of the answers are wrong Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
15	Able to understand about Environmental Pollution	Can explain about Soil Pollution	Criteria: 100 marks if all answers are correct (100%) 70 marks if 30 % of the answers are wrong Mark 50 if 50 % of the answers are wrong Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, exercises and assignments 2 X 50			5%
16	FINAL SEMESTER EXAMINATION (UAS)	FINAL SEMESTER EXAMINATION (UAS)	Criteria: ACCORDING TO THE ANSWER KEY IN THE FINAL SEMESTER EXAMINATION (UAS) Form of Assessment : Test	FINAL SEMESTER EXAMINATION (UAS) 2 X 50			30%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	50%
2.	Test	50%
		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.