



**Universitas Negeri Surabaya
Vocational Faculty,
D4 Informatics Management Study Program**

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																																
Artificial intelligence	5730103171		T=3 P=0 ECTS=4.77	3	July 17, 2024																																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator		Study Program Coordinator																																																
		Dodik Arwin Dermawan, S.ST., S.T., M.T.																																																
Learning model	Project Based Learning																																																				
Program Learning Outcomes (PLO)	PLO study program which is charged to the course																																																				
	Program Objectives (PO)																																																				
	PLO-PO Matrix																																																				
		<table border="1" style="margin: auto;"> <tr><td style="width: 50px; height: 20px;">P.O</td></tr> </table>					P.O																																														
P.O																																																					
	<table border="1" style="margin: auto;"> <tr><td colspan="16" style="text-align: center;">PO Matrix at the end of each learning stage (Sub-PO)</td></tr> <tr> <td rowspan="2" style="width: 50px; height: 20px;">P.O</td> <td colspan="15" 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>					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 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																																					
Short Course Description	Examining the concepts of soft computing, Perceptron, Neural Network, Fuzzy, Supervised Learning, and unsupervised Learning, as well as their applications in everyday life.																																																				
References	Main :																																																				
	1. 1. Jang JSR., Neuro Fuzzy & Soft Computing, Prentice Hall, 1997 2. Purnomo,MH, Supervised Learning Neural Networks, Graha Ilmu. 2006 3. Russel Norvig, Artificial Intelligence A Modern Approach, Prentice Hall, 2003 4. Cormen T., Leiserson C., Rivest R., Stein C., Introduction to Algorithms, 2nd Edition, McG international Edition, 20045. Haykin, Neural Networks, 1999																																																				
	Supporters:																																																				
Supporting lecturer	Asmunin, S.Kom., M.Kom. Ronggo Alit, M.M., M.T. Bonda Sisephaputra, M. Kom. I Gde Agung Sri Sidhimantra, S.Kom., M.Kom.																																																				
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	Understand the introduction to Artificial Intelligence	- Knowing about Artificial Intelligence - Explaining system applications regarding Artificial Intelligence in everyday life	Criteria: 1. The assessment criteria are carried out by looking at aspects: 2.1. Participation: carried out by observing student activities (weight 2) 3.2. UTS: carried out with an assessment during the middle of the semester (weight 2) 4.3. UAS: carried out every semester to measure all indicators (weight 3) 5.4. Task: carried out on each indicator (weight 3) 6. Student Final Grade: 7. Participation Score (2)% Lever Score (3)% UTS Score (2)% UAS Score (3) divided by 10.	Presentation, group discussion and reflection 3 X 50			0%
2	Create simple DSS software using Statistics	- Understand problem solving using statistics. Can create simple DSS programs using statistics		Presentation, discussion and reflection 1 X 50			0%
3	Create simple software using Perceptron	- Understanding Perceptron Can create simple DSS programs using Perceptron		Presentation, group discussion and reflection 6 X 50			0%
4	Create simple software using Perceptron	- Understanding Perceptron Can create simple DSS programs using Perceptron		Presentation, group discussion and reflection 6 X 50			0%
5	Create simple software using Neural Network (NN)	- Understand NN Can create simple programs using NN		Presentation, group discussion and reflection 9 X 50			0%
6	Create simple software using Neural Network (NN)	- Understand NN Can create simple programs using NN		Presentation, group discussion and reflection 9 X 50			0%
7	Create simple software using Neural Network (NN)	- Understand NN Can create simple programs using NN		Presentation, group discussion and reflection 9 X 50			0%
8	UTS			3 X 50			0%

9	Create simple software using Fuzzy	- Understanding Fuzzy Can create simple programs using Fuzzy		Presentation, discussion and reflection 3 X 50			0%
10	Create simple software using Fuzzy	- Understanding Fuzzy Can create simple programs using Fuzzy		Presentation, discussion and reflection 3 X 50			0%
11	Create simple software using Fuzzy	- Understanding Fuzzy Can create simple programs using Fuzzy		Presentation, discussion and reflection 3 X 50			0%
12	Create simple software using SOM	- Understand SOM Can create simple programs using SOM		Project Based Learning 6 X 50			0%
13	Create simple software using SOM	- Understand SOM Can create simple programs using SOM		Project Based Learning 6 X 50			0%
14	Create simple software using LVQ	- Understand LVQ Can create simple programs using LVQ		Presentation, discussion and reflection 6 X 50			0%
15	Create simple software using LVQ	- Understand LVQ Can create simple programs using LVQ		Presentation, discussion and reflection 6 X 50			0%
16	UAS			3 X 50			0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Forms of assessment:** test and non-test.
- 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.
- 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.
- Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- 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%.
- TM=Face to face, PT=Structured assignments, BM=Independent study.

