	Universitas Negeri Surabaya Faculty of Engineering , Information Technology Education Undergraduate Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Basic Programming	8320703060		T=3	P=0	ECTS=4.77	1	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Drs. Bambang Sujatmiko, M.T.

Learning model	**Project Based Learning**	
Program Learning Outcomes (PLO)	**PLO study program which is charged to the course**	
	PLO-6	Able to make decisions based on data/information and able to solve problems in the field of information technology.
	PLO-13	Able to develop innovative educational products or learning resources using scientific design-based strategies to support teaching activities that can be integrated with ICT.
	Program Objectives (PO)	
	PLO-PO Matrix	

P.O	PLO-6	PLO-13

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	Understanding of computational thinking related to computer programming. Understanding of concepts in programming languages such as: variables, operators, sequences, loops, conditionals, lists, and functions. Designing computer language programs for PTI learning media applications.	
References	**Main :**	
	1. Ekohariadi. 2017. Pemrograman komputer menggunakan bahasa C/C . Surabaya. Unipress Unesa. 2. Ekohariadi; Ibnu, F.K; & Ricky, E.P. 2015. Pemrograman visual menggunakan Scratch . Surabaya. Unipress Unesa	
	Supporters:	
Supporting lecturer	Prof. Dr. Ekohariadi, M.Pd. Dr. Yeni Anistyasari, S.Pd., 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	Understanding computational thinking in basic programming courses. Understanding the Scratch programming tool	1. Explain computational thinking constructs: Sequence, Loop, Parallelism, Conditional, Operator, Data, and Event Handling 2. Investigate the Scratch programming environment 3. Uses various types of operator command blocks and arithmetic functions		Presentation, discussion and practicum 3 X 50			0%
2	Students are able to understand the structure of writing the Python programming language	- Identifying types of data types - Explaining the rules for defining identifiers - Identifying the differences between variables and constants - Identifying types of operators - Explaining the priority of arithmetic operators - Identifying types of input and output functions - Implementing input and output functions in programs		Scientific approach, lectures, questions and answers, discussions, direct learning, and 3 X 50 practicum			0%
3	Students are able to apply input and output functions in making programs	Students are able to: - Identify types of input and output functions - Apply input and output functions in programs		Scientific approach, lectures, questions and answers, discussions, problem-based learning, and 3 X 50 practicum			0%
4	Students are able to create programs with the branching concept	Students are able to: - Identify differences in conditions and actions - Explain single, multiple and multilevel branching - Explain branching using case selection - Apply the concept of branching to programs		Scientific approach, lectures, questions and answers, discussions, problem-based learning, and 6 X 50 practicum			0%
5	Students are able to create programs with the branching concept	Students are able to: - Identify differences in conditions and actions - Explain single, multiple and multilevel branching - Explain branching using case selection - Apply the concept of branching to programs		Scientific approach, lectures, questions and answers, discussions, problem-based learning, and 6 X 50 practicum			0%

6	Students are able to create programs with the concept of repetition	students are able to: - Identify types of loops - Explain the structure of loops - Apply the concept of loops to programs		Scientific approach, lectures, questions and answers, discussions, problem-based learning, and 6 X 50 practicum			0%
7	Students are able to create programs with the concept of repetition	students are able to: - Identify types of loops - Explain the structure of loops - Apply the concept of loops to programs		Scientific approach, lectures, questions and answers, discussions, problem-based learning, and 6 X 50 practicum			0%
8				3 X 50			0%
9	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%
10	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%
11	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%
12	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%

13	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%
14	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%
15	Students are able to use functions in making programs	Students are able to:- Explain the basic concept of functions- Explain how to declare functions- Explain how to call functions- Apply functions in programs		Approach: Scientific Model: Cooperative Method: Lecture, problem-based learning, discussion, presentation and practicum 3 X 50			0%
16				3 X 50			0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		0%

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.