	Universitas Negeri Surabaya Faculty of Mathematics and Natural Sciences Bachelor of Mathematics Education Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
VISUAL PROGRAMMING	8420203150		T=3	P=0	ECTS=4.77	4	July 18, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	.....	.....	Dr. Endah Budi Rahaju, M.Pd.

Learning model	**Project Based Learning**
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)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Short Course Description	Studying the basic concepts of visual programming languages, how to use existing tools to produce a good application display. Visual design and graphic displays are also introduced in this course and ends with a project for creating applications for Mathematics learning media. Studying the basic concepts of visual programming languages, how to use existing tools to produce a good application display. Visual design and graphic displays are also introduced in this course and ends with a project for creating applications for Mathematics learning media
References	**Main :**

1.
1. Cay S. Horstmann . 2010. *Big Java 4th Edition* . John Wiley & Sons
2. Uttam K Roy. 2015. *Advanced Java Programming* . Oxford University Press
3. Onur Cinar . 2012. *Android Apps with Eclipse* . Apress
4. Tao Wang and Ryan Cohen. 2014. *GUI Design for Android Apps* . Apress
5. Stephen Chin, Dean Iverson, Oswald Campesato, and Paul Tani . Pro Android Flash . 2011. *Springer* .
6. Tim Adobe. Adobe Flash Professional CC Help. 2015.

Supporters:	
Supporting lecturer	Dr. Atik Wintarti, M.Kom. Dr. Elly Matul Imah, M.Kom. Evangelista Lus Windyana Palupi, S.Pd., M.Sc. Nina Rinda Prihartiwi, 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	Get to know the Java Graphical User Interface (GUI) Using the components in the Java GUI	1. Able to explain Java GUI 2. Able to create and program Java GUI components		Scientific Approach 3 X 50			0%
2	Designing program designs with Java GUI Creating programs with Java GUI	1. Able to create program designs with Java GUI 2. Able to create programs with Java GUI		Scientific approach 3 X 50			0%
3							0%
4	Get to know Android programming with Java Install the Android Development Tool (ADT) Create a simple Android application	1. Able to use Android programming 2. Can install ADT 3. Able to create simple Android applications		Scientific approach 3 X 50			0%
5	Get to know layout on Android Get to know input/output on Android	1. Able to create layouts according to design 2. Able to create input/output on Android applications		Scientific Approach: observing, asking, exploring Methods: lecture, discussion, question and answer, giving assignments Learning Strategy: accentuation of information processing (cognitive) 3 X 50			0%
6	Getting to Know Android Widgets Using Android Widgets	1. Getting to know Android Widgets 2. Using Android Widgets		Scientific approach 3 X 50			0%
7	Get to know activities on Android. Create activities on Android applications	1. Get to know activities on Android 2. Create activities in Android applications		Scientific approach 3 X 50			0%
8	UTS			3 X 50			0%
9	Get to know Adobe Flash CS6Create simple animations using Flash	1. Able to use Adobe Flash CS6 2. Create simple animations using Flash		Scientific approach 3 X 50			0%
10	Using Action Script 3 Create a SWF application	1. Using Action Script 3 2. Create a SWF application		Scientific approach 3 X 50			0%

11	Setting up Adobe Flash for Android	Installing software for Android		Scientific approach 3 X 50			0%
12	Converting swf apps to apk for AndroidRunning apk on Android	1. Convert swf app to apk for Android 2. Running apk on Android		Scientific approach 3 X 50			0%
13	Developing creativity to make project proposals	Able to create creative ideas to create Android-based learning media		6 X 50			0%
14	Developing creativity to make project proposals	Able to create creative ideas to create Android-based learning media		6 X 50			0%
15	Present and validate the applications developed	Present and validate the applications developed		3 X 50			0%
16							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** 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.