



**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
E-Learning	8420202047		T=2	P=0	ECTS=3.18	4	July 17, 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 which is charged to the course**

**PLO-5**      Demonstrate a scientific, critical and innovative attitude in teaching and learning mathematics and professional tasks

**PLO-9**      Communicate ideas and research results effectively, verbally and literally

**PLO-12**      Demonstrate mathematical knowledge and insight

**Program Objectives (PO)**

**PO - 1**      Able to demonstrate pedagogical knowledge in designing, implementing and evaluating Mathematics learning

**PO - 2**      Able to design, implement and evaluate mathematics e-learning using ICT

**PLO-PO Matrix**

P.O	PLO-5	PLO-9	PLO-12
PO-1			
PO-2			

**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-1																
PO-2																

**Short Course Description**      This course examines the concept of e-learning and its use in mathematics learning. The discussion begins with the meaning and characteristics of e-learning, followed by studying e-learning supporting technology. Then apply it to create simple e-learning for mathematics learning through IT-assisted task-based learning.

**References**      **Main :**

1. Efront, T . 2014. E-learning Concepts, Trends, Applications. Epignosis LCC
2. Singh, J. 2014. How to use Moodle 2 . OReilly Media Inc
3. Rosenberg, M., et.al. 2007. e-Learning Strategy . The Learning Guild.

**Supporters:**

Supporting lecturer		Shofan Fiangga, S.Pd., M.Sc. Dr. Ali Shodikin, S.Pd., M.Pd. Dr. Nonik Indrawatiningsih, M.Pd. Evangelista Lus Windyana Palupi, S.Pd., M.Sc.					
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 e-learning and the history of its development	1.Get to know the meaning of e-learning 2.Know the history of the development of e-learning	<b>Criteria:</b> Objective	Scientific Approach: observing, asking, exploring Methods: lecture, discussion, question and answer, giving assignments Learning Strategy: accentuation of information processing (cognitive) 2 X 50			0%
2	Understand the basic concepts of e-learning	1.Know the benefits of e-learning 2.Using learning strategies for e-learning 3.Managing knowledge for e-learning	<b>Criteria:</b> Objective	· Scientific approach: observing, asking, exploring · Method: lecture, discussion, question and answer, giving assignments Learning Strategy: accentuation of information processing (cognitive) 2 X 50			0%
3	Understand the basic concepts of e-learning	1.Know the benefits of e-learning 2.Using learning strategies for e-learning 3.Managing knowledge for e-learning	<b>Criteria:</b> Objective	· Scientific approach: observing, asking, exploring · Method: lecture, discussion, question and answer, giving assignments Learning Strategy: accentuation of information processing (cognitive) 2 X 50			0%
4	Understand e-learning support tools	1. Familiar with web technology 2.Get to know Weblogs 3.Using cloud drives 4.Using plug-ins 5.Using Widgets		2 X 50			0%

5	Understand e-learning support tools	<ol style="list-style-type: none"> <li>1. Familiar with web technology</li> <li>2. Get to know Weblogs</li> <li>3. Using cloud drives</li> <li>4. Using plug-ins</li> <li>5. Using Widgets</li> </ol>		2 X 50			0%
6	Creating e-learning with LMS	Using a Learning Management System (LMS)	<b>Criteria:</b> Objective	<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: lecture, discussion, question and answer, giving assignments</li> <li>· Learning Strategy: accentuation of information processing (cognitive)</li> </ul>			0%
7	Creating e-learning with LMS	Using a Learning Management System (LMS)	<b>Criteria:</b> Objective	<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: lecture, discussion, question and answer, giving assignments</li> <li>· Learning Strategy: accentuation of information processing (cognitive)</li> </ul>			0%
8	UTS		<b>Criteria:</b> Objective	2 X 50			0%
9	Setting up an e-learning system	Installing an e-learning system		<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: question and answer, giving assignments</li> <li>· Learning strategy: accentuation of information processing (cognitive)</li> </ul>			0%

10	Creating an e-learning system for mathematics learning	<ul style="list-style-type: none"> <li>· Designing e-learning systems</li> <li>· Managing multimedia content</li> <li>· Publishing e-learning systems on the webserver</li> </ul>		<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: lecture, discussion, question and answer, giving assignments</li> <li>· Learning Strategy: accentuation of information processing (cognitive)</li> </ul>			0%
11	Creating an e-learning system for mathematics learning	<ul style="list-style-type: none"> <li>· Designing e-learning systems</li> <li>· Managing multimedia content</li> <li>· Publishing e-learning systems on the webserver</li> </ul>		<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: lecture, discussion, question and answer, giving assignments</li> <li>· Learning Strategy: accentuation of information processing (cognitive)</li> </ul>			0%
12	Practicing e-learning	<ul style="list-style-type: none"> <li>· Using e-learning</li> <li>· Evaluate the e-learning used</li> </ul>		<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: lecture, discussion, question and answer, giving assignments</li> <li>· Learning Strategy: accentuation of information processing (cognitive)</li> </ul>			0%
13	Practicing e-learning	<ul style="list-style-type: none"> <li>· Using e-learning</li> <li>· Evaluate the e-learning used</li> </ul>		<ul style="list-style-type: none"> <li>· Scientific approach: observing, asking, exploring</li> <li>· Method: lecture, discussion, question and answer, giving assignments</li> <li>· Learning Strategy: accentuation of information processing (cognitive)</li> </ul>			0%

14	Practicing e-learning	· Using e-learning Evaluate the e-learning used		· Scientific approach: observing, asking, exploring · Method: lecture, discussion, question and answer, giving assignments Learning Strategy: accentuation of information processing (cognitive) 2 X 50			0%
15							0%
16							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.