	Universitas Negeri Surabaya Faculty of Education, Basic Education Masters Study Program	Document Code

SEMESTER LEARNING PLAN

Courses		CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Basic Concepts of Elementary Mathematics		8612203051		T=3	P=0	ECTS=6.72	2	July 17, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
	....	....	Neni Mariana, S.Pd., M.Sc., Ph.D.

Learning model	Case Studies

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	Studies that discuss basic mathematical concepts regarding the nature of mathematics and school mathematics, problem solving, whole numbers, fractional numbers, social algebra and arithmetic, linear equations and inequalities in one variable, number patterns, scales and comparisons, sets, lines and angles, measurement and geometry (Plane and Figure Figures), Functions and Equations of Straight Lines, Systems of Linear Equations in two Variables, Pythagorean Theorem, Quadratic Functions, Circles and Tangents to Circles, Statistics and Probability. The assessment is carried out by involving student activity through assignment presentations and in-depth discussions of the main material. The assessment activity ends with a discussion of the discussion and reflection activities.

References	Main :

1. Van de Walle, John A. 2007. Matematika Sekolah Dasar dan Menengah. (Terjemahan oleh Suyono). Jilid 1 dan 2. Jakarta: Erlangga
2. Musser, Gary L & Burger, William F. 1997. Mathematics for Elementary Teachers: A Contemporary Approach. Upper Saddle River, NJ: Prentice-Hall
3. Soedjadi. 2000 Kiat Pendidikan Matematika di Indonesia: Konstatasi Keadaan Masa Kini Menuju Harapan Masa Depan. Jakarta: Dirjen Dikti Depdiknas

	Supporters:

Supporting lecturer	Dr. Agung Lukito, M.S. Prof. Dr. Tatag Yuli Eko Siswono, S.Pd., M.Pd. Neni Mariana, S.Pd., M.Sc., Ph.D. Prof. Rooselyna Ekawati, Ph.D.

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 characteristics of mathematics and school mathematics	Explain the characteristics of mathematics and school mathematics	**Criteria:** Maximum score 100	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			0%
2	Understand problem solving	Explain the characteristics of problem solving	**Criteria:** Mom's score is 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%
3	Understand Whole Numbers and Fractions, and be skilled at solving problems related to these concepts	Describe, present and solve problems related to Integers and Fractions.	**Criteria:** Max score 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%
4	Understand algebra and social arithmetic, and be skilled at solving problems related to these concepts.	Describe, present and solve problems related to algebra and social arithmetic	**Criteria:** Max score 100	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative learning Strategy: assignments and presentations in turns. 3 X 50			0%
5	Able to understand linear equations and inequalities in one variable, and skilled at solving problems related to these concepts.	Describe, present, and solve problems related to Linear Equations and Inequalities in One Variable.	**Criteria:** Based on rubric scoring **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%

6	Understand number patterns, scales and comparisons, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Number Patterns, Scales and Comparisons	**Criteria:** Rubric and scoring max 100	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			0%
7	Understand Sets, Lines and Angles, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Sets, Lines and Angles.	**Criteria:** Rubric and maximum scoring 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%
8	Understand Measurement and Geometry (Flat and Figure, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Measurement and Geometry (Flat and Figure	**Criteria:** Rubric and Max Scoring 100 **Form of Assessment** : Participatory Activities, Tests	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%
9	U.S.S	U.S.S	**Criteria:** Max score 100 **Form of Assessment** : Test	Open books 3 X 50			30%
10	Understand functions and equations of straight lines, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Straight Line Functions and Equations.	**Criteria:** Rubric and maximum scoring 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%

11	Understand Systems of Linear Equations in two Variables, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Systems of Linear Equations in two Variables.	**Criteria:** Rubric and maximum scoring 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			5%
12	Understand the Pythagorean Theorem, and be skilled at solving problems related to this concept.	Describe and solve problems related to the Pythagorean Theorem.	**Criteria:** Rubric and maximum scoring 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			15%
13	Understand Quadratic Functions, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Quadratic Functions	**Criteria:** Rubric and max score 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			10%
14	Understand circles and tangents to circles, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Circles and Tangents to Circles	**Criteria:** Rubric and Max Scoring 100	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			0%
15	Understand statistics, and be skilled at solving problems related to these concepts.	Describe and solve problems related to Statistics I	**Criteria:** Rubric and Max Score 100 **Form of Assessment** : Participatory Activities	Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50			10%

| 16 | Able to understand opportunity theory conceptually and able to solve problems related to the concept of opportunity. | Describe and solve problems related to Opportunities | **Criteria:** Rubric and maximum scoring 100 | Approach: Scientific Method: Question and answer, discussion and presentation Model: cooperative Strategy: assignments and presentations in turns. 3 X 50 | | | 0% |

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
1.	Participatory Activities	67.5%
2.	Test	32.5%
		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** 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.