



**Universitas Negeri Surabaya**  
**Faculty of Mathematics and Natural Sciences**  
**Doctoral Study Program in Mathematics Education**

Document Code

**SEMESTER LEARNING PLAN**

<b>Courses</b>	<b>CODE</b>	<b>Course Family</b>	<b>Credit Weight</b>			<b>SEMESTER</b>	<b>Compilation Date</b>																																											
Philosophy of Mathematics Education (Philosophy of Mathematics Education)	8400202038		T=2	P=0	ECTS=5.04	1	July 17, 2024																																											
<b>AUTHORIZATION</b>	<b>SP Developer</b>		<b>Course Cluster Coordinator</b>			<b>Study Program Coordinator</b>																																												
	.....		.....			Prof. Dr. Tatag Yuli Eko Siswono, S.Pd., M.Pd.																																												
<b>Learning model</b>	Case Studies																																																	
<b>Program Learning Outcomes (PLO)</b>	<b>PLO study program that is charged to the course</b>																																																	
	<b>Program Objectives (PO)</b>																																																	
	<b>PLO-PO Matrix</b>																																																	
		P.O																																																
<b>Short Course Description</b>	<b>PO Matrix at the end of each learning stage (Sub-PO)</b>																																																	
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="text-align: center;">P.O</td> <td style="width: 5%;">1</td> <td style="width: 5%;">2</td> <td style="width: 5%;">3</td> <td style="width: 5%;">4</td> <td style="width: 5%;">5</td> <td style="width: 5%;">6</td> <td style="width: 5%;">7</td> <td style="width: 5%;">8</td> <td style="width: 5%;">9</td> <td style="width: 5%;">10</td> <td style="width: 5%;">11</td> <td style="width: 5%;">12</td> <td style="width: 5%;">13</td> <td style="width: 5%;">14</td> <td style="width: 5%;">15</td> <td style="width: 5%;">16</td> </tr> </table>																	Week																P.O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Week																																																	
P.O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																																		
<b>References</b>	<p><b>Main :</b></p> <ol style="list-style-type: none"> <li>1. Brown, James 2008. Philosophy of Mathematics. New York: Routledge</li> <li>2. Ernest, P. (Ed.) Philosophy of mathematics education journal . ISSN 1465-2978 (Online).</li> <li>3. Ernest, P. 1991. The philosophy of mathematics education . London: Falmer Press.</li> <li>4. Fitzsimmons, J. A. 2014. Philosophy of teaching and learning mathematics .<a href="http://plato.wilmington.edu/faculty/jfitzs/tchg_phi.htm">http://plato.wilmington.edu/faculty/jfitzs/tchg_phi.htm</a></li> <li>5. Gutek, Gerald Lee. 2009. New perspectives on philosophy and education . Columbus, Ohio : Pearson</li> </ol> <p><b>Supporters:</b></p>																																																	
<b>Supporting lecturer</b>	Prof. Dr. Mega Teguh Budiarto, M. Pd. Dr. Yusuf Fuad, M.App.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	Sub-CPMK-1.1 Be able to explain the etymological meaning of the word "philosophy".	Able to describe the general meaning of philosophy and the philosophy of mathematics education		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
2	Sub-CPMK-1.2 Able to explain the main aspects of philosophical review (ontology, epistemology, axiology).	Able to outline a review of ontology, epistemology and axiology of mathematics education		Classroom Activities: Collaborative Reciprocity; class discussion 3 X 50			0%
3	Sub-CPMK-1.2 Able to explain the main aspects of philosophical review (ontology, epistemology, axiology).	Able to outline a review of ontology, epistemology and axiology of mathematics education		Classroom Activities: Collaborative Reciprocity; class discussion 3 X 50			0%
4	Sub-CPMK-2.1 Able to describe epistemological schools related to mathematics education.	Able to analyze the differences in the epistemology of Mathematics Education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
5	Sub-CPMK-2.2 Able to describe ontology streams related to mathematics education.	Able to analyze the differences in ontology streams of Mathematics Education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
6	Sub-CPMK-2.3 Able to describe epistemological schools related to mathematics education.	Able to analyze the differences in the axiological schools of Mathematics Education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
7	Sub-CPMK-3.1 Able to synthesize the influence of classical philosophy related to mathematics education.	Able to synthesize the influence of classical philosophy related to mathematics education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
8	Midterm exam			2 X 50			0%
9	Sub-CPMK-3.2 Able to synthesize the influence of modern philosophy related to mathematics education.	Able to synthesize the influence of modern philosophy related to mathematics education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
10	Sub-CPMK-3.3 Able to synthesize the influence of contemporary philosophy related to mathematics education.	Able to synthesize the influence of contemporary philosophy related to mathematics education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%

11	Sub-CPMK-3.4 Able to evaluate the development of mathematics education philosophy.	Able to evaluate the development of Mathematics Education in terms of the Philosophy of Science.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
12	Sub-CPMK-3.4 Able to evaluate the development of mathematics education philosophy.	Able to evaluate the development of Mathematics Education in terms of the Philosophy of Science.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
13	Sub-CPMK-3.4 Able to evaluate the development of mathematics education philosophy.	Able to analyze the paradoxes and philosophies of the concept of independent learning in Mathematics Education.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
14	Sub-CPMK-3.4 Able to evaluate the development of mathematics education philosophy.	Able to analyze the paradoxes and philosophies of online learning concepts in school mathematics learning.		Classroom Activities: Collaborative Reciprocity; class discussion 2 X 50			0%
15							0%
16							0%

#### Evaluation Percentage Recap: Case Study

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.

