



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

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>										
Writing Scientific Papers	8420202169	Compulsory Study Program Subjects	T=2	P=0	ECTS=3.18	6	July 17, 2024										
<b>AUTHORIZATION</b>	<b>SP Developer</b>		<b>Course Cluster Coordinator</b>			<b>Study Program Coordinator</b>											
	.....		Rooselyna Ekawati, Ph.D.			Dr. Endah Budi Rahaju, M.Pd.											
<b>Learning model</b>	Project Based Learning																
<b>Program Learning Outcomes (PLO)</b>	<b>PLO study program that is charged to the course</b>																
	<b>PLO-5</b>	Demonstrate a scientific, critical and innovative attitude in teaching and learning mathematics and professional tasks															
	<b>PLO-8</b>	Designing, implementing and evaluating mathematics learning using IT															
	<b>PLO-9</b>	Communicate ideas and research results effectively, verbally and literally															
	<b>PLO-14</b>	Demonstrate knowledge related to mathematics education research															
	<b>Program Objectives (PO)</b>																
	<b>PO - 1</b>	Demonstrate mathematical pedagogical knowledge in writing scientific papers															
	<b>PO - 2</b>	Make appropriate decisions regarding the selection of themes and preparation of scientific papers in the field of mathematics education															
	<b>PO - 3</b>	Able to compose scientific papers in order to solve mathematics education problems comprehensively and communicate them with the help of ICT															
	<b>PO - 4</b>	Able to work independently and collaborate with full responsibility in scientific writing assignments															
	<b>PLO-PO Matrix</b>																
			P.O	PLO-5	PLO-8	PLO-9	PLO-14										
		PO-1															
		PO-2															
		PO-3															
	PO-4																
<b>PO Matrix at the end of each learning stage (Sub-PO)</b>																	
	P.O	Week															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	PO-1																
	PO-2																
	PO-3																
	PO-4																
<b>Short Course Description</b>	Study various concepts and theories related to techniques for writing scientific papers, as well as practice writing scientific papers with the concepts/theories that will be studied including the nature and characteristics of scientific works, preparation for writing scientific papers, use of libraries in writing scientific papers, components of scientific works, tips for writing scientific papers, reviewing, finalizing and disseminating scientific works through active task-based learning.																
<b>References</b>	<b>Main :</b>																

1. Janne, J .2005. A Guide to Scientific Writing . AIVI Academic Press
2. Matthews, J.R & Matthews, R.W. 2015. Successful Scientific Writing . Cambridge University Press
3. Dwiloka, B dan Riana, R . 2005. Teknik Menulis Karya Ilmiah . Jakarta: Rineka Cipta.

**Supporters:**

1. Jurnal internasional di bidang pendidikan Matematika

**Supporting lecturer**

Dr. Pradnyo Wijayanti, M.Pd.  
 Prof. Rooselyna Ekawati, Ph.D.  
 Ahmad Wachidul Kohar, S.Pd., M.Pd.  
 Dr. Ali Shodikin, 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	Mastering the meaning, scope, function and types of scientific writing	Explain the meaning, scope, function and types of scientific writing	<b>Form of Assessment :</b> Participatory Activities	Collaborative Learning Approach (expository, discussion and question and answer) 100 minutes		<b>Material:</b> Definition, scope, function and types of scientific writing. <b>Reference:</b> <i>Janne, J. 2005. A Guide to Scientific Writing. AIVI Academic Press</i> <hr/> <b>Material:</b> Type of scientific writing <b>Library:</b> <i>International journal in the field of Mathematics education</i>	5%
2	Able to understand IMRAD format as the main basis for writing scientific papers	Explain the basics of writing scientific papers such as Introduction, Methods, Results And Discussion (IMRAD)	<b>Form of Assessment :</b> Participatory Activities	Collaborative Learning Approach (expository, discussion and question and answer) 100 minutes		<b>Material:</b> Definition, scope, function and types of scientific writing. <b>Reference:</b> <i>Janne, J. 2005. A Guide to Scientific Writing. AIVI Academic Press</i> <hr/> <b>Material:</b> Type of scientific writing <b>Library:</b> <i>International journal in the field of Mathematics education</i>	5%

3	Able to understand the theme of written work in Mathematics Education	Explains several themes of written work in mathematics education	<b>Form of Assessment :</b> Participatory Activities	Collaborative Learning Approach (expository, discussion and question and answer) 100 minutes		<b>Material:</b> Definition, scope, function and types of scientific writing. <b>Reference:</b> <i>Janne, J. 2005. A Guide to Scientific Writing. AIVI Academic Press</i>  <b>Material:</b> Type of scientific writing <b>Library:</b> <i>International journal in the field of Mathematics education</i>	5%
4	Understand writing as an internal scientific process and understand journal systematics	1.● Explain writing as a scientific process 2.● Understand the systematics of journals in the field of mathematics education	<b>Form of Assessment :</b> Participatory Activities	Lectures, discussions and questions and answers			0%
5	Understand the journal and its reputation	Explains reputable national and international journals	<b>Form of Assessment :</b> Participatory Activities	Collaborative Learning Approach (expository, discussion, and question and answer)			0%
6	1. Understand scientific articles in reputable journals in the field of Mathematics education	Reviewing reputable scientific journal articles	<b>Form of Assessment :</b> Participatory Activities	Collaborative Learning Approach (expository, discussion, and question and answer)			0%
7	Understand the PBM approach (Pre-writing, writing, and post-writing)	Explain the PBM approach (pre-writing, writing, and post-writing)	<b>Form of Assessment :</b> Participatory Activities	Collaborative Learning Approach (expository, discussion, and question and answer)			0%
8				UTS			0%
9	Designing scientific work through pre-writing activities	● Draft a scientific work with pre-writing such as formulating a theme, compiling a concept map, collecting supporting data		Learning Form: Practice Learning Method: Project based learning			0%
10	Designing scientific work through pre-writing activities	● Draft a scientific work with pre-writing such as formulating a theme, compiling a concept map, collecting supporting data		Learning Form: Practice Learning Method: Project based learning			0%

11	Designing scientific work through pre-writing activities	<ul style="list-style-type: none"> <li>Draft a scientific work with pre-writing such as formulating a theme, compiling a concept map, collecting supporting data</li> </ul>		Learning Form: Practice Learning Method: Project based learning			0%
12	Designing scientific work through pre-writing activities	<ul style="list-style-type: none"> <li>Draft a scientific work with pre-writing such as formulating a theme, compiling a concept map, collecting supporting data</li> </ul>		Learning Form: Practice Learning Method: Project based learning			0%
13	Communicate and present scientific articles that have been developed	Presents scientific articles that have been developed	<b>Form of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	Learning Form: Performance and practice Learning Method: Project based learning			0%
14	Communicate and present scientific articles that have been developed	Presents scientific articles that have been developed	<b>Form of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	Learning Form: Performance and practice Learning Method: Project based learning			0%
15	Communicate and present scientific articles that have been developed	Presents scientific articles that have been developed	<b>Form of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	Learning Form: Performance and practice Learning Method: Project based learning			0%
16				UAS			0%

#### Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	15%
		15%

#### 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.

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.