



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

**Document Code**

**SEMESTER LEARNING PLAN**

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Analysis of Articles and Publications	1234502018	Compulsory Study Program Subjects	T=2	P=0	ECTS=4.48	4	October 22, 2021
AUTHORIZATION	SP Developer	Course Cluster Coordinator			Study Program Coordinator		
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**Learning model** Project Based Learning

**Program Learning Outcomes (PLO)** PLO study program that is charged to the course

**PLO-6** Able to demonstrate a responsible attitude towards work in their field of expertise by paying attention to academic ethics in carrying out their professional duties, and able to embody the character of faith, intelligence, independence, honesty, caring and toughness in daily behavior.

**PLO-9** Able to manage learning and solve problems in the field of Biology education by developing an innovative model (HOTS or TPACK) characterized by eduecopreneurship based on local wisdom.

**Program Objectives (PO)**

**PO - 1** Able to master knowledge about writing scientific articles in biology education and the publication process in both national and international journals

**PO - 2** Able to prepare article ideas from the results of biology education research that are ready to be published to the academic community both nationally and internationally.

**PO - 3** Able to solve biology learning problems through developing educational models or programs based on HOTS, TPACK, and local wisdom which are packaged in the form of articles

**PO - 4** Able to demonstrate an attitude of responsibility in completing assignments regarding the preparation of biology education research articles

**PLO-PO Matrix**

P.O	PLO-6	PLO-9
PO-1		
PO-2		
PO-3		
PO-4		

**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																	
PO-3																	
PO-4																	

**Short Course Description** Practice related to the skill of writing articles resulting from thesis research that are ready to be published in a Sinta 1-4 accredited journal or reputable/indexed international journal. Article writing practice includes skill in submitting articles and skill in carrying out procedures for revising articles that have been submitted.

**References** **Main :**

- Hailman J.P., Strier K.B, 2006. Planning, Proposing, and Presenting Science Effectively, 2nd Edition. Cambridge University Press. Cambridge
- McMillan V.E. 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York
- Day R.A., 1998. How to write & publish a scientific paper. Oryx Press. Arizona

**Supporters:**

<ol style="list-style-type: none"> <li>Susantini, E., Puspitawati, R.P., Raharjo, &amp; Suaidah, H.L. 2021. E-book of Metacognitive learning strategies: design and implementation to activate student's self regulation. <i>Research and Practice in Technology Enhanced Learning</i>. Vol. 16(13).</li> <li>Susantini, E., Indana, S., Isnawati, &amp; Nursangi, A. 2019. Enabling Indonesian Pre-Service Teachers to Design Biology Learning Tools Using Metacognitive Strategy. <i>Jurnal Pendidikan IPA Indonesia</i>. Vol.8(3):391-397</li> <li>Syahrawati, E.Y., Susantini, E., &amp; Indana, S. 2022. Profil of Blended Learning Implementation in Learning Activities. <i>IJORER( International Journal of Recent Educational Research)</i>. Vol.3(1):45-60.</li> <li>Evendi, Susantini, E., Wasis, W., &amp; Prahani, B. K. (2018). Improving Students' Scientific Asking Skills through the Implementation of Question Webs Based Learning Model. In <i>Journal of Physics: Conference Series</i> (Vol. 1108).</li> </ol>							
<b>Supporting lecturer</b>		Prof. Dr. Fida Rachmadiarti, M.Kes. Prof. Dr. Endang Susantini, 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	<ol style="list-style-type: none"> <li>Master the concepts, principles, procedures for writing articles in accredited national journals and reputable/indexed international journals</li> <li>Prepare article ideas from the results of thesis research that are ready to be published to the academic community, both nationally and internationally.</li> </ol>	<ol style="list-style-type: none"> <li>Analyzing biology education articles in accredited journals Sinta 1-4 and indexed international journals</li> <li>Skilled in determining article ideas from the results of thesis research in the field of biology education</li> </ol>	<p><b>Criteria:</b> Assessment of article products based on lecture contracts</p> <p><b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment</p>	<p>Agree on lecture contracts related to determining MK grades through the implementation of PjBL with article products from student theses. The PjBL stages are as follows:</p> <ol style="list-style-type: none"> <li>Basic questions, determining research problems from the student's thesis that are worthy of being used as articles.</li> <li>Product planning design: Arranging the article format according to the style of the intended journal.</li> <li>Activity schedule and project submission deadlines: Agree on the schedule for monitoring article progress and deadlines for submitting articles and receiving journal LoA during UAS.</li> <li>Monitor project progress: each student presents the results of the draft article.</li> <li>Testing the results: providing input on each stage of IMRADC (Introduction, Method, Result, and Discussion, Conclusion)</li> <li>Evaluation: reflection on experience Compile and submit articles to accredited national journals or reputable/indexed international journals 2 x 50</li> </ol>		<p><b>Material:</b> Planning scientific articles</p> <p><b>Bibliography:</b> <i>Hailman JP, Strier KB, 2006. Planning, Proposing, and Presenting Science Effectively, 2nd Edition. Cambridge University Press. Cambridge</i></p>	5%

2	<p>1.Master the concepts, principles, procedures for writing articles in accredited national journals and reputable/indexed international journals</p> <p>2.Prepare article ideas from the results of thesis research that are ready to be published to the academic community, both nationally and internationally.</p>	<p>1.Analyzing biology education articles in accredited journals Sinta 1-4 and indexed international journals</p> <p>2.Skilled in determining article ideas from the results of thesis research in the field of biology education</p>	<p><b>Criteria:</b> Assessment of article products based on lecture contracts</p> <p><b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment</p>	<p>Agree on lecture contracts related to determining MK grades through the implementation of PjBL with article products from student theses. The PjBL stages are as follows:</p> <p>1. Basic questions, determining research problems from the student's thesis that are worthy of being used as articles.</p> <p>2. Product planning design: Arranging the article format according to the style of the intended journal.</p> <p>3. Activity schedule and project submission deadlines: Agree on the schedule for monitoring article progress and deadlines for submitting articles and receiving journal LoA during UAS.</p> <p>4. Monitor project progress: each student presents the results of the draft article.</p> <p>5. Testing the results: providing input on each stage of IMRADC (Introduction, Method, Result, and Discussion, Conclusion)</p> <p>6. Evaluation: reflection on experience Compile and submit articles to accredited national journals or reputable/indexed international journals 2 x 50</p>		<p><b>Material:</b> Planning scientific articles</p> <p><b>Bibliography:</b> <i>Hailman JP, Strier KB, 2006. Planning, Proposing, and Presenting Science Effectively, 2nd Edition. Cambridge University Press. Cambridge</i></p>	5%
3	Formulate an introduction to a journal article.	Prepare an introduction containing background, gap analysis, state of the art, objectives.	<p><b>Criteria:</b> Test</p> <p><b>Form of Assessment :</b> Project Results Assessment / Product Assessment</p>	<p>4. Monitor the progress of each student's project, present the results of the draft article in the preliminary stage</p> <p>5. Test the results: provide input regarding the preliminary stage of the article 2 x 50</p>		<p><b>Material:</b> Writing scientific articles</p> <p><b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i></p> <p><b>Material:</b> Writing scientific articles</p> <p><b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i></p>	5%

4	Skilled in compiling methods in journal articles.	Developing methods in journal articles	<b>Criteria:</b> Test  <b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	4. Monitor the progress of each student's project and present the results of the draft article at the research method stage.  5. Testing the results: providing input regarding research methods written by students 2 x 50		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%
5	Skilled in analyzing results and discussions in journal articles	Compile results and discussions in journal articles	<b>Criteria:</b> Test  <b>Form of Assessment :</b> Project Results Assessment / Product Assessment	4. Monitor the progress of each student's project, present the results of the draft article at the stage of preparing the results and discussion.  5. Testing the results: providing input regarding the stages of preparing the results and discussion in 2 x 50 journal articles		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%
6	Skilled in making conclusions and using Reference Manager (Mandelay, APA, etc.) for journal article references	1. Arranging the article cover and article references. 2. Know and understand the principles of using reference managers 3. Practice using the reference manager application in compiling a bibliography/reference list	<b>Criteria:</b> Test  <b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	4. Monitor the progress of each student's project and present the results of draft articles related to the preparation of conclusions, acknowledgments and article references.  5. Testing the results: providing input for the conclusion stage, and technical writing of bibliography/reference references. 2 x 50		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%

7	Skilled in compiling and finalizing journal articles	Skilled in compiling research articles to solve biology education problems systematically	<p><b>Criteria:</b> Product assessment</p> <p><b>Form of Assessment :</b> Project Results Assessment / Product Assessment</p>	<p>4. Monitor the progress of each student's project and present the results of the final draft of the research journal article.</p> <p>5. Testing the results: providing input into the process of preparing 2 x 50 research articles</p>		<p><b>Material:</b> Writing Scientific Papers <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i></p> <hr/> <p><b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i></p>	15%
8	UTS	Submit articles to journals	<p><b>Criteria:</b> Submit articles to journals</p> <p><b>Form of Assessment :</b> Test</p>	UTS 2 x 50			5%
9	Skilled in communicating articles in the form of presentations and assisting with article revisions	<p>1. Present the results of the articles that have been created</p> <p>2. Proofreading journal articles</p>	<p><b>Criteria:</b> Performance assessment</p> <p><b>Form of Assessment :</b> Project Results Assessment / Product Assessment</p>	<p>4. Monitoring project progress: each student reports the progress of the article after submitting it to the target journal .</p> <p>5. Testing the results: providing solutions/suggestions regarding reviewer comments on articles written by students.</p> <p>6. Evaluation: reflection on experience in compiling articles and submitting them to nationally accredited journals or accredited/indexed international journals until obtaining LoA. 2 x 50</p>		<p><b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i></p> <hr/> <p><b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i></p>	5%
10	Skilled in communicating articles in the form of presentations and assisting with article revisions	<p>1. Present the results of the articles that have been created</p> <p>2. Proofreading journal articles</p>	<p><b>Criteria:</b> Performance assessment</p> <p><b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment</p>	<p>4. Monitoring project progress: each student reports the progress of the article after submitting it to the target journal .</p> <p>5. Testing the results: providing solutions/suggestions regarding reviewer comments on articles written by students.</p> <p>6. Evaluation: reflection on experience in compiling articles and submitting them to nationally accredited journals or accredited/indexed international journals until obtaining LoA. 2 x 50</p>		<p><b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i></p> <hr/> <p><b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i></p>	5%

11	Skilled in communicating articles in the form of presentations and assisting with article revisions	1.Present the results of the articles that have been created 2.Proofreading journal articles	<b>Criteria:</b> Performance assessment  <b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	4. Monitoring project progress: each student reports the progress of the article after submitting it to the target journal . 5. Testing the results: providing solutions/suggestions regarding reviewer comments on articles written by students. 6. Evaluation: reflection on experience in compiling articles and submitting them to nationally accredited journals or accredited/indexed international journals until obtaining LoA. 2 x 50		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%
12	Skilled in communicating articles in the form of presentations and assisting with article revisions	1.Present the results of the articles that have been created 2.Proofreading journal articles	<b>Criteria:</b> Performance assessment  <b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	4. Monitoring project progress: each student reports the progress of the article after submitting it to the target journal . 5. Testing the results: providing solutions/suggestions regarding reviewer comments on articles written by students. 6. Evaluation: reflection on experience in compiling articles and submitting them to nationally accredited journals or accredited/indexed international journals until obtaining LoA. 2 x 50		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%
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14	Skilled in communicating articles in the form of presentations and assisting with article revisions	1.Present the results of the articles that have been created 2.Proofreading journal articles	<b>Criteria:</b> Performance assessment  <b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	4. Monitoring project progress: each student reports the progress of the article after submitting it to the target journal . 5. Testing the results: providing solutions/suggestions regarding reviewer comments on articles written by students. 6. Evaluation: reflection on experience in compiling articles and submitting them to nationally accredited journals or accredited/indexed international journals until obtaining LoA. 2 x 50		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%
15	Skilled in communicating articles in the form of presentations and assisting with article revisions	1.Present the results of the articles that have been created 2.Proofreading journal articles	<b>Criteria:</b> Performance assessment  <b>Forms of Assessment :</b> Participatory Activities, Project Results Assessment / Product Assessment	4. Monitoring project progress: each student reports the progress of the article after submitting it to the target journal . 5. Testing the results: providing solutions/suggestions regarding reviewer comments on articles written by students. 6. Evaluation: reflection on experience in compiling articles and submitting them to nationally accredited journals or accredited/indexed international journals until obtaining LoA. 2 x 50		<b>Material:</b> Writing scientific articles <b>Bibliography:</b> <i>McMillan VE 2001. Writing papers in the Biological Sciences. Bedford/St. Martin's. New York</i>  <b>Material:</b> Writing scientific articles <b>Reference:</b> <i>Day RA, 1998. How to write &amp; publish a scientific paper. Oryx Press. Arizona</i>	5%
16		Assessment of article products based on lecture contracts	<b>Criteria:</b> Article products  <b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Final assessment 2 x 50			15%

#### Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	25%
2.	Project Results Assessment / Product Assessment	70%
3.	Test	5%
		100%

#### 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.

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.