



**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>																																
Assessment of Learning Processes and Outcomes	8420203018		T=3 P=0 ECTS=4.77	4	July 18, 2024																																
<b>AUTHORIZATION</b>		<b>SP Developer</b>	<b>Course Cluster Coordinator</b>	<b>Study Program Coordinator</b>																																	
		.....	.....	Dr. Endah Budi Rahaju, M.Pd.																																	
<b>Learning model</b>	Project Based Learning																																				
<b>Program Learning Outcomes (PLO)</b>	PLO study program that is charged to the course																																				
	Program Objectives (PO)																																				
	PLO-PO Matrix																																				
		P.O																																			
<b>Short Course Description</b>	Studying the meaning, objectives, functions and principles of assessment, taxonomy of cognitive, affective, psychomotor learning outcomes, assessment strategies (paper & pencil and alternative assessments), forms of assessment instruments, rubrics, analysis and interpretation of assessment results, class-based assessments, assessment of science process skills and scientific attitudes (including character) through task-based learning, discussion, and use of Anates V4 and Iteman software.																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width: 10%; text-align: center;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 3%;">1</td> <td style="width: 3%;">2</td> <td style="width: 3%;">3</td> <td style="width: 3%;">4</td> <td style="width: 3%;">5</td> <td style="width: 3%;">6</td> <td style="width: 3%;">7</td> <td style="width: 3%;">8</td> <td style="width: 3%;">9</td> <td style="width: 3%;">10</td> <td style="width: 3%;">11</td> <td style="width: 3%;">12</td> <td style="width: 3%;">13</td> <td style="width: 3%;">14</td> <td style="width: 3%;">15</td> <td style="width: 3%;">16</td> </tr> </table>					P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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<b>References</b>	<b>Main :</b>																																				
	<ol style="list-style-type: none"> <li>1. Brookhart, Susan M. 2010. How to assess higher-order thinking skills in your classroom. Alexandria: ASCD.</li> <li>2. Arikunto, Suharsimi / I. Jabar, CepiSafruddin Abdul. 2008. Evaluasi program pendidikan: pedoman teoritis bagi mahasiswa dan praktisi pendidikan. Jakarta: BumiAksara.</li> <li>3. Kubiszyn, Tom / I. Borich, Gary. 2007. Educational testing and measurement: classroom application and practice. New Jersey: John Wiley &amp; Sons.</li> <li>4. Kumari, Sarita / I. Srivastava, D.S. 2005. Education: assessment, evaluation and remedial. New Delhi: Isha Books.</li> <li>5. Rani, T. Swarupa. 2004. Educational measurement and evaluation. New Delhi: DPH.</li> <li>6. Ross, Kenneth N. (ed). 2005. Quantitative research Methods in Educational Planning, Module 6: Overview of Test Construction. Paris: International Institute for Educational Planning, UNESCO.</li> <li>7. Walton, John A. 2005. Educational objectives and achievement testing. New Delhi: Commonwealth.</li> <li>8. George, David. 2005. Examination and evaluation in education. New Delhi: Commonwealth.</li> <li>9. Arends, Richard I. 2004. Guide to Field Experiences ad Portofolio Development: to accompany learning to teach. New York: McGraw-Hill Book Company.</li> <li>10. Naik, S.P. 2004. Role of evaluation in education. New Delhi: Anmol Publications PVT.</li> <li>11. Johnson, David W. and Johnson, Robert T. 2002. Meaningful Assessment Manageable and Cooperative process. Boston: Allyn and Bacon.</li> <li>12. Glencoe Series. Tanpa Tahun. Performance Assessment in The Science Classroom. New York: McGraw- Hill Company</li> </ol>																																				
	<b>Supporters:</b>																																				
<b>Supporting lecturer</b>	Dr. Hj. Masriyah, M.Pd. Dr. Endah Budi Rahaju, M.Pd. Abdul Haris Rosyidi, S.Pd., M.Pd. Ahmad Wachidul Kohar, S.Pd., M.Pd.																																				
<b>Week-</b>	<b>Final abilities of each learning stage (Sub-PO)</b>	<b>Evaluation</b>	<b>Help Learning, Learning methods, Student Assignments, [ Estimated time]</b>	<b>Learning materials [ References]</b>	<b>Assessment Weight (%)</b>																																

		Indicator	Criteria & Form	Offline ( offline )	Online ( online )	]	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Describe the role of assessment in education and learning	1.Analyze assessment principles 2.Analyze the objectives, types and functions of assessment 3.Analyzing the meaning of educational and learning assessments	<b>Criteria:</b> 1.Question 1a, maximum score 10 2.Question 1b, maximum score 10	Lectures, discussion-information, assignments 3 X 50			0%
2	Describe the meaning and position of measurement, assessment and evaluation and recognize the taxonomy of learning objectives	1.Analyze the position of measurement, assessment and evaluation 2.Get to know the taxonomy of learning objectives	<b>Criteria:</b> 1.Question 1, maximum score 10 2.Question 2, maximum score 10	Lectures, information discussions, assignments, presentations 3 X 50			0%
3	Explain the differences between the old and revised Bloom's taxonomies as well as the appropriate indicators and learning objectives	1.Explain Bloom's Taxonomy and its revisions 2.Develop learning indicators 3.Develop learning objectives Explain the components of learning objectives	<b>Criteria:</b> 1.If 1 question is correct, score 7 2.If 2 questions are correct, score 14 3.If 3 questions are correct, score 20	Lectures, information discussions, assignments, presentations 3 X 50			0%
4	Explain the differences between the old and revised Bloom's taxonomies as well as the appropriate indicators and learning objectives	1.Explain Bloom's Taxonomy and its revisions 2.Develop learning indicators 3.Develop learning objectives Explain the components of learning objectives	<b>Criteria:</b> 1.If 1 question is correct, score 7 2.If 2 questions are correct, score 14 3.If 3 questions are correct, score 20	Lectures, information discussions, assignments, presentations 3 X 50			0%
5	Developing learning outcomes tests and rubrics Processing learning outcomes tests	1.Explain the meaning of the advantages and disadvantages of tests 2.Explaining techniques, types and forms of tests 3.Develop a scoring rubric 4.explains test assessment rubrics, scoring, converting scores into grades 5.interpret learning results 6.Processing test results	<b>Criteria:</b> 1.If the correct answer to the main question is correct, score 5, 2.If the repair option is correct, score 5,	Lectures, discussion-information, assignments 3 X 50			0%

6	Developing learning outcomes tests and rubrics Processing learning outcomes tests	<ol style="list-style-type: none"> <li>1.Explain the meaning of the advantages and disadvantages of tests</li> <li>2.Explaining techniques, types and forms of tests</li> <li>3.Develop a scoring rubric</li> <li>4.explains test assessment rubrics, scoring, converting scores into grades</li> <li>5.interpret learning results</li> <li>6.Processing test results</li> </ol>	<b>Criteria:</b> <ol style="list-style-type: none"> <li>1.If the correct answer to the main question is correct, score 5,</li> <li>2.If the repair option is correct, score 5,</li> </ol>	Lectures, discussion-information, assignments 3 X 50			0%
7	Developing learning outcomes tests and rubrics Processing learning outcomes tests	<ol style="list-style-type: none"> <li>1.Explain the meaning of the advantages and disadvantages of tests</li> <li>2.Explaining techniques, types and forms of tests</li> <li>3.Develop a scoring rubric</li> <li>4.explains test assessment rubrics, scoring, converting scores into grades</li> <li>5.interpret learning results</li> <li>6.Processing test results</li> </ol>	<b>Criteria:</b> <ol style="list-style-type: none"> <li>1.If the correct answer to the main question is correct, score 5,</li> <li>2.If the repair option is correct, score 5,</li> </ol>	Lectures, discussion-information, assignments 3 X 50			0%
8	UTS	UTS	<b>Criteria:</b> UTS	UTS 3 X 50			0%
9	Develop non-tests (questionnaires, observations, and interviews and attitude scales)	<ol style="list-style-type: none"> <li>1.Explain the meaning of non-questionnaire tests, observations, interviews and attitude scales)</li> <li>2.Explain the rules for preparing non-test questionnaires, observations, and interviews and attitude scales)</li> <li>3.Processing the results of non-test questionnaires, observations, interviews and attitude scales)</li> <li>4.Developing questionnaires, positive and negative, observation guidelines, and interviews as well as attitude scales),</li> </ol>	<b>Criteria:</b> <ol style="list-style-type: none"> <li>1.Question 5a.</li> <li>2.If the question is correct, score 5.</li> <li>3.If the question is correct, and the alternative answer is correct, score 10</li> <li>4.Question 5b.</li> <li>5.If the question is correct, score 5.</li> <li>6.If the question is correct, and the alternative answer is correct, score 10</li> </ol>	Lectures, discussion-information, assignments 3 X 50			0%

10	Develop non-tests (questionnaires, observations, and interviews and attitude scales)	<ol style="list-style-type: none"> <li>1.Explain the meaning of non-questionnaire tests, observations, interviews and attitude scales)</li> <li>2.Explain the rules for preparing non-test questionnaires, observations, and interviews and attitude scales)</li> <li>3.Processing the results of non-test questionnaires, observations, interviews and attitude scales)</li> <li>4.Developing questionnaires, positive and negative, observation guidelines, and interviews as well as attitude scales),</li> </ol>	<b>Criteria:</b> <ol style="list-style-type: none"> <li>1.Question 5a.</li> <li>2.If the question is correct, score 5.</li> <li>3.If the question is correct, and the alternative answer is correct, score 10</li> <li>4.Question 5b.</li> <li>5.If the question is correct, score 5.</li> <li>6.If the question is correct, and the alternative answer is correct, score 10</li> </ol>	Lectures, discussion-information, assignments 3 X 50			0%
11	Developing Authentic Assessment	<ol style="list-style-type: none"> <li>1.Explain the meaning of authentic assessment</li> <li>2.Explain the various types of authentic assessments</li> <li>3.Winning authentic assessment tasks and scoring rubrics</li> </ol>	<b>Criteria:</b> <ol style="list-style-type: none"> <li>1.Question 5a.</li> <li>2.If the question is correct, score 5.</li> <li>3.If the question is correct, and the alternative answer is correct, score 10</li> <li>4.Question 5b.</li> <li>5.If the question is correct, score 5.</li> <li>6.If the question is correct, and the alternative answer is correct, score 10</li> </ol>	Lectures, discussion-information, assignments 3 X 50			0%
12	Describe the quality of measuring instruments	<ol style="list-style-type: none"> <li>1.Explain validity and reliability</li> <li>2.Explain the factors that influence validity</li> <li>3.Explain the factors that influence reliability</li> </ol>	<b>Criteria:</b> <ol style="list-style-type: none"> <li>1.Question 5a.</li> <li>2.If the question is correct, score 5.</li> <li>3.If the question is correct, and the alternative answer is correct, score 10</li> <li>4.Question 5b.</li> <li>5.If the question is correct, score 5.</li> <li>6.If the question is correct, and the alternative answer is correct, score 10</li> </ol>	Lectures, discussion-information, assignments 3 X 50			0%

13	Explains the types of validity and various methods for determining the reliability coefficient of objective tests and essays	1.Explain the various types of validity of a test device 2.Explain the various methods for determining the reliability of a test 3.Calculating the reliability of tests based on norms and benchmarks	<b>Criteria:</b> 1.Arrange open questions with many solutions and alternative answers to measure students' ability to understand: 2.one of the junior high school materials: Numbers or Flat Figures/space or Algebra. one of the high school materials: Matrices or Logic or Statistics or Trigonometry or Calculus.	Lectures, discussion-information, assignments 3 X 50			0%
14	Analyze the question items	Analyzing test items, including: level of achievement of indicators for criteria-referenced items, sensitivity index for criteria-referenced items, level of difficulty of test items, discriminating power, effectiveness of options, validity of norm-referenced items	<b>Criteria:</b> 1.Question 5a. 2.If the question is correct, score 5. 3.If the question is correct, and the alternative answer is correct, score 10 4.Question 5b. 5.If the question is correct, score 5. 6.If the question is correct, and the alternative answer is correct, score 10	Lectures, discussion-information, assignments 3 X 50			0%
15	Practicing test item analysis and determining test reliability with computer programs	Practicing test item analysis and determining test reliability with computer programs	<b>Criteria:</b> Compose objective multiple choice questions to measure the achievement of the indicator: "Solving problems in daily life related to comparisons."	3 X 50 demonstrations, tasks and experiments			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.

