



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

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																	
Innovative Learning I	8420103107		T=3 P=0 ECTS=4.77	4	July 18, 2024																																	
AUTHORIZATION	SP Developer		Course Cluster Coordinator	Study Program Coordinator																																		
	Prof. Dr. Erman, M.Pd.																																		
Learning model	Project Based Learning																																					
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																					
	Program Objectives (PO)																																					
	PLO-PO Matrix																																					
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 100px; height: 30px;">P.O</td> </tr> </table>					P.O																															
P.O																																						
	PO Matrix at the end of each learning stage (Sub-PO)																																					
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td rowspan="2" style="width: 50px; height: 30px;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">2</td> <td style="width: 20px;">3</td> <td style="width: 20px;">4</td> <td style="width: 20px;">5</td> <td style="width: 20px;">6</td> <td style="width: 20px;">7</td> <td style="width: 20px;">8</td> <td style="width: 20px;">9</td> <td style="width: 20px;">10</td> <td style="width: 20px;">11</td> <td style="width: 20px;">12</td> <td style="width: 20px;">13</td> <td style="width: 20px;">14</td> <td style="width: 20px;">15</td> <td style="width: 20px;">16</td> </tr> </table>					P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																						
Short Course Description	This course discusses the study of learning models including presentation learning models, meaningful learning, direct instruction, concept attainment models, and discussion models of learning. Apart from that, STEM, STEAM, SETS, Digital, Blended Learning, Neuroscience and learning strategies are also studied in this course. The assessment is carried out through concept explanations, presentation of operational examples of each learning model in the form of learning tools, workshops on developing learning tools by students oriented towards each learning model and strategy. The assessment activity ends with an exercise in implementing a particular learning model by each student in a peer teaching forum followed by discussion and reflection activities.																																					
References	Main :																																					
	<ol style="list-style-type: none"> 1. Arends, Richard I . 2012. Learning To Teach sixth Edition . New York: McGraw-Hill Book Company. 2. Ibrahim, Muslimin . 2012. Konsep, Miskonsepsi, dan Cara Pembelajarannya . Surabaya: University Press 3. Nur, Mohamad . 2000. Strategi-strategi Belajar . Surabaya: Pusat Sains dan Matematika Sekolah. 4. Nur, Mohamad, Kardi Soeparman . 2000. Pembelajaran Langsung . Surabaya: Pusat Sains dan Matematika Sekolah. 																																					
	Supporters:																																					
Supporting lecturer	Prof. Dr. Erman, M.Pd. Dr. Dyah Astriani, S.Pd., M.Pd. Tutut Nurita, S.Pd., M.Pd. Laily Rosdiana, S.Pd., M.Pd. Enny Susiyawati, S.Si., M.Sc., M.Pd., Ph.D. Dhita Ayu Permata Sari, 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	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics of the presentation learning model 2.Explain the stages of the presentation learning model 3.Provide an example of implementing the presentation learning model in the classroom 	Criteria: Written test related to knowledge of the presentation learning model with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50		0%
2	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics of meaningful learning models 2.Explain the stages of a meaningful learning model 3.Provide examples of implementing meaningful learning models in the classroom 	Criteria: Written test related to knowledge of meaningful learning models with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50		0%
3	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group. Create learning tools according to science learning models included in the Innovative Learning group. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics of the direct learning model 2.Explain the stages of the direct learning model 3.Provide examples of the application of direct learning models in the classroom 	Criteria: Written test related to knowledge of the direct learning model with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50		0%

4	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics of the concept acquisition learning model 2.Explain the stages of the concept acquisition learning model 3.Provide examples of the application of concept acquisition learning models in the classroom 	Criteria: Written test related to knowledge regarding concept acquisition learning models with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50		0%
5	Utilizing learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency Having knowledge of the characteristics of science learning models included in the Innovative Learning group I Creating learning tools according to the science learning models included in the Innovative Learning group I Carrying out science learning modeling is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics of the discussion learning model 2.Explain the stages of the discussion learning model 3.Provide examples of the application of the discussion learning model in the classroom 	Criteria: Written test related to knowledge of the discussion learning model with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50		0%
6	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics of STEM, STEAM, and SETS-oriented learning 2.Explains the stages of STEM, STEAM, and SETS oriented learning 3.Provide examples of the application of STEM, STEAM, and SETS-oriented learning in the classroom 	Criteria: Written test related to knowledge regarding STEM, STEAM, and SETS oriented learning with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50		0%

7	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explaining the characteristics of digital-oriented learning, blended learning and neuroscience 2.Explains the stages of Digital, Blended Learning and Neuroscience oriented learning 3.Provide examples of the application of Digital-oriented learning, Blended Learning and Neuroscience in the classroom 	Criteria: Written test related to knowledge regarding Digital-oriented learning, Blended Learning and Neuroscience with assessment using scoring guidelines based on weighting.	Student-centered learning approach (student-centered learning). Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, and device making exercises. 3 X 50			0%
8	Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group	<ol style="list-style-type: none"> 1.Explain the characteristics and application of the presentation learning model 2.Explain the characteristics and application of meaningful learning models 3.Explain the characteristics and application of the direct learning model 4.Explain the characteristics and application of the concept acquisition learning model 5.Explain the characteristics and application of the discussion learning model 6.Explain the characteristics and application of STEM-oriented learning. STEAM, and SETS 7.Explains the characteristics and application of Digital-oriented learning, Blended Learning and Neuroscience 	Criteria: Written test related to knowledge of learning models within the scope of Innovative Learning 1 with assessment using scoring guidelines based on weighting.	student-centered learning (student-centered learning) 2 X 50			0%

9	<p>Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group</p>	<ol style="list-style-type: none"> 1.Explain the various learning strategies 2.Explain the characteristics of each learning strategy 3.Provide examples of implementing learning strategies in the classroom 	<p>Criteria: Written test related to knowledge of learning strategies with assessment using scoring guidelines based on weighting.</p>	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>			0%
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10	<p>Utilize learning resources and ICT to support the design and implementation of innovative science learning that is relevant to achieving student competency. Have knowledge of the characteristics of science learning models included in the Innovative Learning group I. Create learning tools according to science learning models included in the Innovative Learning group I. Carry out modeling. Science learning is in accordance with the learning models included in the Innovative Learning I group</p>	<ol style="list-style-type: none"> 1. Identify components of learning tools 2. Explain the characteristics of good learning tools 3. Develop good learning tools using appropriate learning models, approaches and strategies 	<p>Criteria:</p> <ol style="list-style-type: none"> 1. Rubric 2. Score 4: The tool conforms to the format, each component is written correctly, the tool is developed according to SK, KD, appropriate indicators and objectives, the tool contains learning activities that match the syntax, develops appropriate assessment instruments. 3. Score 3: The tool conforms to the format, each component is written correctly, the tool is developed according to the SK, KD, indicators and objectives, the tool contains learning activities that match the syntax, develops appropriate assessment instruments. 4. Score 2: The tool conforms to the format, each component is written correctly, the tool was developed not according to the SK, KD, indicators and objectives, the tool contained learning activities that matched the syntax, the appropriate assessment instrument was not developed. 5. Score 1: The device is written, but does not match the format 	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>		0%
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11	<p>Make decisions in designing and implementing innovative science learning that is relevant to competencies, subject matter characteristics and student characteristics in a peer teaching format. Have a responsible attitude by implementing learning that is relevant to students' competencies and characteristics. Create learning tools according to the science learning models included in the group. Innovative Learning 1 Modeling science learning in accordance with the learning models included in the Innovative Learning I group</p>	<p>1.Analyze appropriate material for one learning model 2.Develop learning tools that are appropriate to the specified learning materials and models</p>	<p>Criteria: 1.Rubric 2.Score 4: The tool conforms to the format, each component is written correctly, the tool is developed according to SK, KD, appropriate indicators and objectives, the tool contains learning activities that match the syntax, develops appropriate assessment instruments. 3.Score 3: The tool conforms to the format, each component is written correctly, the tool is developed according to the SK, KD, indicators and objectives, the tool contains learning activities that match the syntax, develops appropriate assessment instruments. 4.Score 2: The tool conforms to the format, each component is written correctly, the tool was developed not according to the SK, KD, indicators and objectives, the tool contained learning activities that matched the syntax, the appropriate assessment instrument was not developed. 5.Score 1: The device is written, but does not match the format</p>	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>		0%
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12	<p>Make decisions in designing and implementing innovative science learning that is relevant to competencies, subject matter characteristics and student characteristics in a peer teaching format. Have a responsible attitude by implementing learning that is relevant to students' competencies and characteristics. Create learning tools according to the science learning models included in the group. Innovative Learning I Modeling science learning in accordance with the learning models included in the Innovative Learning I group</p>	<p>1.Analyze appropriate material for one learning model 2.Develop learning tools that are appropriate to the specified learning materials and models</p>	<p>Criteria: 1.Score 2.Rubric 3.4 4.The device is in accordance with the format, each component is written correctly, the device is developed according to the SK, KD, appropriate indicators and objectives, the device contains learning activities that match the syntax, develops appropriate assessment instruments. 5.3 6.The tools are in accordance with the format, each component is written correctly, the tools are developed according to the SK, KD, appropriate indicators and objectives, the tools contain learning activities that match the syntax, develop appropriate assessment instruments. 7.2 8.The device conforms to the format, each component is written correctly, the device is developed not according to the SK, KD, indicators and objectives, the device contains learning activities that match the syntax, the appropriate assessment instrument is not developed. 9.1 10.The device is written, but does not match the format</p>	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>		0%
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13	<p>Make decisions in designing and implementing innovative science learning that is relevant to competencies, subject matter characteristics and student characteristics in a peer teaching format. Have a responsible attitude by implementing learning that is relevant to students' competencies and characteristics. Create learning tools according to the science learning models included in the group. Innovative Learning I Modeling science learning in accordance with the learning models included in the Innovative Learning I group</p>	<p>1. Analyze appropriate material for one learning model 2. Develop learning tools that are appropriate to the specified learning materials and models</p>	<p>Criteria: 1. Score 2. Rubric 3.4 4. The device is in accordance with the format, each component is written correctly, the device is developed according to the SK, KD, appropriate indicators and objectives, the device contains learning activities that match the syntax, develops appropriate assessment instruments. 5.3 6. The tools are in accordance with the format, each component is written correctly, the tools are developed according to the SK, KD, appropriate indicators and objectives, the tools contain learning activities that match the syntax, develop appropriate assessment instruments. 7.2 8. The device conforms to the format, each component is written correctly, the device is developed not according to the SK, KD, indicators and objectives, the device contains learning activities that match the syntax, the appropriate assessment instrument is not developed. 9.1 10. The device is written, but does not match the format</p>	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>		0%
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14	<p>Make decisions in designing and implementing innovative science learning that is relevant to competencies, subject matter characteristics and student characteristics in a peer teaching format. Have a responsible attitude by implementing learning that is relevant to students' competencies and characteristics. Create learning tools according to the science learning models included in the group. Innovative Learning I Modeling science learning in accordance with the learning models included in the Innovative Learning I group</p>	<p>1.Planning a learning simulation with a predetermined learning model 2.Carrying out learning simulations (peer teaching) with predetermined learning models</p>	<p>Criteria: 1.Score 2.Rubric 3.4 4.Peer teaching is carried out coherently with appropriate intonation and emphasis, with the help of ppt media according to media criteria, tools that are arranged correctly, formulating suggestions for improvement 5.3 6.Peer teaching is carried out in a coherent manner without appropriate intonation and emphasis, with the help of ppt media according to media criteria, correctly arranged tools, formulating suggestions for improvement 7.2 8.Peer teaching is carried out less coherently with inappropriate intonation and emphasis, with the help of ppt media according to media criteria, tools arranged correctly, formulating suggestions for improvement 9.1 10.Peer teaching was carried out, but was not coherent and/or did not emphasize important aspects of the device, was not assisted by ppt media, the device was arranged incorrectly, unable to formulate suggestions for improvement</p>	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>			0%
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15	<p>Make decisions in designing and implementing innovative science learning that is relevant to competencies, subject matter characteristics and student characteristics in a peer teaching format. Have a responsible attitude by implementing learning that is relevant to students' competencies and characteristics. Create learning tools according to the science learning models included in the group. Innovative Learning I Modeling science learning in accordance with the learning models included in the Innovative Learning I group</p>	<p>1.Planning a learning simulation with a predetermined learning model 2.Carrying out learning simulations (peer teaching) with predetermined learning models</p>	<p>Criteria: 1.Score 2.Rubric 3.4 4.Peer teaching is carried out coherently with appropriate intonation and emphasis, with the help of ppt media according to media criteria, tools that are arranged correctly, formulating suggestions for improvement 5.3 6.Peer teaching is carried out in a coherent manner without appropriate intonation and emphasis, with the help of ppt media according to media criteria, correctly arranged tools, formulating suggestions for improvement 7.2 8.Peer teaching is carried out less coherently with inappropriate intonation and emphasis, with the help of ppt media according to media criteria, tools arranged correctly, formulating suggestions for improvement 9.1 10.Peer teaching was carried out, but was not coherent and/or did not emphasize important aspects of the device, was not assisted by ppt media, the device was arranged incorrectly, unable to formulate suggestions for improvement</p>	<p>Student-centered learning approach. Deductive learning method. Learning strategy in the form of literature searches, discussion of learning results, analyzing tools. 3 X 50</p>		0%
16						0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		0%

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** 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.
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.