



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
Instructional Media	8420103090		T=3 P=0 ECTS=4.77	4	July 18, 2024
AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator		
	Dr. Wahono Widodo, M.Si	Prof. Dr. Erman, M.Pd.		

Learning model Project Based Learning

Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																																																																								
PLO-5	Demonstrate scientific, critical, and innovative attitudes in integrated science learning, laboratory activities, and professional-related tasks																																																																																								
PLO-9	Work effectively both individually and in groups, and have entrepreneurial spirit and environmental awareness																																																																																								
PLO-10	Design, implement, and evaluate science learning using ICT																																																																																								
PLO-14	Demonstrate pedagogical knowledge of designing, implementing, and evaluating integrated science learning																																																																																								
Program Objectives (PO)																																																																																									
PO - 1	Mastering the meaning, types/classification, functions, and basics of learning media development.																																																																																								
PO - 2	Design, select and produce science learning media by utilizing the surrounding environment (contextual) and/or ICT-based.																																																																																								
PO - 3	Have a responsible attitude in developing practical, efficient and safe science learning media for students.																																																																																								
PLO-PO Matrix																																																																																									
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>P.O</th> <th>PLO-5</th> <th>PLO-9</th> <th>PLO-10</th> <th>PLO-14</th> </tr> <tr> <td>PO-1</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-3</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					P.O	PLO-5	PLO-9	PLO-10	PLO-14	PO-1					PO-2					PO-3																																																																				
P.O	PLO-5	PLO-9	PLO-10	PLO-14																																																																																					
PO-1																																																																																									
PO-2																																																																																									
PO-3																																																																																									
PO Matrix at the end of each learning stage (Sub-PO)																																																																																									
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2">P.O</th> <th colspan="16">Week</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th> </tr> <tr> <td>PO-1</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>PO-2</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>PO-3</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>					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																
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																																																																																									

Short Course Description Study of the meaning, types/classification, functions, basics of media development, media principles, as well as being able to select, design and produce learning media by utilizing the surrounding environment (contextual) and ICT

References	<p>Main :</p> <ol style="list-style-type: none"> 1. Fenrich, Peter. 1997. Practical Guidelines For Creating Instructional: Multimedia Application . San Diego, USA: The Dryden Press. 2. Heinich, R., Molenda, M., Russell, J. D., & Smaldino, S. E. 1999. Instructional media and technologies for learning. Upper Saddle River, NJ : Prentice-Hall. 3. Isnawati, Supriono, dan Hasan Subekti. 2013. Rampai Media Pembelajaran Sains Inovatif . Surabaya: Jaudar Press. 4. Smadino, Sharon E., Debora L. Lowter, James D. Russell. 2011 . Instructional Technology & media for Learning (Teknologi Pembelajaran dan Media untuk Belajar). Jakarta: Kencana Prenada Media Group. 5. Smart Apps Creator 3 Quick Guide. Tersedia: https://www.youtube.com/channel/UCqncLITcxTwSVOCr_BevCVQ/videos?view=0&sort=dd&shelf_id=0
Supporters:	

Supporting lecturer		Prof. Dr. Wahono Widodo, M.Si. Dr. Siti Nurul Hidayati, S.Pd., M.Pd. Dr. Hasan Subekti, S.Pd., M.Pd. Muhamad Arif Mahdiannur, S.Pd., M.Pd. Dyah Permata Sari, S.Pd., M.Pd. Ernita Vika Aulia, S.Pd., M.Pd. Roihana Waliyyul Mursyidah, 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	<p>1. Integrating ICT in science learning as a source and learning medium and using it to support the implementation of learning.</p> <p>2. Mastering the meaning, types/classification, functions, and basics of learning media development.</p>	<p>1. Explain the meaning of learning media</p> <p>2. Explain the types of learning media</p> <p>3. Explain the function of learning media</p> <p>4. Analyzing media is related to its level of abstractness</p> <p>5. Explaining learning in learning theory</p> <p>6. Applying the principles of effective visual media development in learning</p>	<p>Criteria: Attached</p> <p>Form of Assessment : Participatory Activities, Tests</p>	<ul style="list-style-type: none"> • Discuss media and learning tools, • Discuss the concrete-abstract media continuum • Discuss learning in learning theory • Discuss the role of technology and media in learning • Discuss the principles of developing effective learning media <p>3 X 50</p>	<p>Downloading learning resources, reading learning resources, observing various examples of media in science learning, synchronous face-to-face meetings, discussions, and working on assignments related to examples of the application of media to support the principles of effective science learning, assignments submitted to Vinesa/Sidia.</p> <p>3 X 50</p>	<p>Material: definition, examples, media classification, and principles of effective science learning.</p> <p>References: <i>Smadino, Sharon E., Debora L. Lowter, James D. Russell, 2011 . Instructional Technology & media for Learning (Learning Technology and Media for Learning). Jakarta: Kencana Prenada Media Group.</i></p> <p>Material: Science learning media</p> <p>Library: <i>Isnawati, Supriono, and Hasan Subekti. 2013. Rampai Innovative Science Learning Media. Surabaya: Jaudar Press.</i></p> <p>Material: Examples of media applications that are appropriate for Gen-Z</p> <p>Reader: <i>Widodo, Wahono & Sudibyo, Elok & Suryanti, Suryanti & Sari, Dhita & Inzanah, I. & Setiawan, Beni. (2020). The Effectiveness of Gadget-Based Interactive Multimedia in Improving Generation Z's Scientific Literacy. Indonesian Science Education Journal. 9. 248-256. 10.15294/jpii.v9i2.23208.</i></p>	5%

2	<ul style="list-style-type: none"> Design, select and produce ICT-based science learning media 	<ol style="list-style-type: none"> Analyze alternative ICT-based media that can be used in learning Choose alternative ICT-based media according to classroom learning conditions 	<p>Criteria: Accuracy in selecting media that supports student-centered learning in its design</p> <p>Form of Assessment : Participatory Activities, Tests</p>	<ul style="list-style-type: none"> Discuss the importance of choosing alternative media in science learning Discuss the flow of learning in class Discuss media in core activities Analyze alternative ICT-based media <p>3 X 50</p>	<p>Synchronous: Web-meeting with discussions like offline. Asynchronous: Reading source books, observing various examples of media in science learning, and working on the task of creating a science learning plan which includes (identifies) the various media needed, the assignment is submitted to Vinesa/Sidia. 3 X 50</p>	<p>Material: definition, examples, media classification, and principles of effective science learning. References: Smadino, Sharon E., Debora L. Lowter, James D. Russell. 2011 . <i>Instructional Technology & media for Learning (Learning Technology and Media for Learning)</i>. Jakarta: Kencana Prenada Media Group.</p> <hr/> <p>Material: Science learning media Library: Isnawati, Supriono, and Hasan Subekti. 2013. <i>Rampai Innovative Science Learning Media</i>. Surabaya: Jaudar Press.</p> <hr/> <p>Material: Examples of media applications that are appropriate for Gen-Z Reader: Widodo, Wahono & Sudibyo, Elok & Suryanti, Suryanti & Sari, Dhita & Inzanah, I. & Setiawan, Beni. (2020). <i>The Effectiveness of Gadget-Based Interactive Multimedia in Improving Generation Z's Scientific Literacy</i>. <i>Indonesian Science Education Journal</i>. 9. 248-256. 10.15294/jpii.v9i2.23208.</p>	5%
3	Design, select and produce ICT-based science learning media.	<ol style="list-style-type: none"> Analyzing alternative ICT-based media that can be used in learning Choose alternative ICT-based media according to learning conditions in the classroom Designing ICT-based media to be applied in learning Developing ICT-based media to be applied in learning 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> Discuss the importance of choosing alternative media in science learning Discuss the flow of learning in class Discuss media in core activities Analyze alternative ICT-based media <p>3 X 50</p>	<p>Synchronous: Web-meeting with discussions like offline. Asynchronous: Reading source books, observing various examples of media in science learning, and working on assignments to create ICT-based science learning media, assignments submitted to Vinesa/Sidia. 3 X 50</p>	<p>Material: Learning media design Readers: Isnawati, Supriono, and Hasan Subekti. 2013. <i>Rampai Innovative Science Learning Media</i>. Surabaya: Jaudar Press.</p> <hr/> <p>Material: Learning media design References: Smadino, Sharon E., Debora L. Lowter, James D. Russell. 2011 . <i>Instructional Technology & media for Learning (Learning Technology and Media for Learning)</i>. Jakarta: Kencana Prenada Media Group.</p>	5%
4	Design, select and produce visual media for science learning	<ol style="list-style-type: none"> Explain the definition of audio-visual media (PPT based) in learning Designing audio-visual media (PPT based) to be applied in learning Developing audio-visual media (PPT based) to be applied in learning 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> Examining examples and visual elements of learning media Discussing the principles of creating visual media Discussing types of letters and the impression they produce <p>3 X 50</p>		<p>Material: ICT-based audiovisual media Readers: Isnawati, Supriono, and Hasan Subekti. 2013. <i>Rampai Innovative Science Learning Media</i>. Surabaya: Jaudar Press.</p> <hr/> <p>Material: Creating multimedia References: Fenrich, Peter. 1997. <i>Practical Guidelines For Creating Instructional: Multimedia Application</i>. San Diego, USA: The Dryden Press.</p>	5%

5	Design, select and produce visual media for science learning	<ol style="list-style-type: none"> 1.Explain the definition of audio-visual media (PPT based) in learning 2.Designing audio-visual media (PPT based) to be applied in learning 3.Developing audio-visual media (PPT based) to be applied in learning 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Examining examples and visual elements of learning media • Discussing the principles of creating visual media • Discussing types of letters and the impression they produce <p>3 X 50</p>		<p>Material: animation media</p> <p>Readers: <i>Isnawati, Supriono, and Hasan Subekti. 2013. Rampai Innovative Science Learning Media. Surabaya: Jaudar Press.</i></p>	5%
6	Design, select and produce animation media for science learning.	<ol style="list-style-type: none"> 1.Explain the definition of animation media (PPT-based) in learning 2.Designing animation media (PPT based) to be applied in learning 3.Develop animation media (PPT based) to be applied in learning 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Discuss the definition of animation in learning • Discuss making animation in learning • Examine the function of the features in PPT to create animation media in learning • Create animation with PPT or MM Flash <p>3 X 50</p>	3 X 50		5%
7	Design, select and produce animation media for science learning.	<ol style="list-style-type: none"> 1.Explain the definition of animation media (PPT-based) in learning 2.Designing animation media (PPT based) to be applied in learning 3.Develop animation media (PPT based) to be applied in learning 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Discuss the definition of animation in learning • Discuss making animation in learning • Examine the function of the features in PPT to create animation media in learning • Create animation with PPT or MM Flash <p>3 X 50</p>	3 X 50		10%
8	Midterm Exam (UTS)		<p>Criteria: Attached</p> <p>Form of Assessment : Test</p>	3 X 50			0%
9	Designing, selecting and producing interactive multimedia (MI) for science learning	<ol style="list-style-type: none"> 1.Compiling MI storyboards for science learning 2.Developing interactive multimedia science learning based on Android applications 3.Running, debugging, and repairing MI 	<p>Criteria: Attached</p> <p>Form of Assessment : Participatory Activities, Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Discussing storyboards • Creating storyboards • Examining SAC features • Practicing using the SAC <p>3 X 50 tool</p>			5%

10	Designing, selecting and producing interactive multimedia (MI) for science learning	<ol style="list-style-type: none"> 1.Compiling MI storyboards for science learning 2.Developing interactive multimedia science learning based on Android applications 3.Running, debugging, and repairing MI 	<p>Criteria: Attached</p> <p>Form of Assessment : Participatory Activities, Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Discussing storyboards • Creating storyboards • Examining SAC features • Practicing using the SAC 3 X 50 tool 			5%
11	Designing, selecting and producing interactive multimedia (MI) for science learning	<ol style="list-style-type: none"> 1.Compiling MI storyboards for science learning 2.Developing interactive multimedia science learning based on Android applications 3.Running, debugging, and repairing MI 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Discussing storyboards • Creating storyboards • Examining SAC features • Practicing using SAC tools • Producing images and videos • Producing media with SAC or Powerpoint Exporting to Android emulator to become an APK • Running, debugging and revising 3 X 50 			10%
12	Designing, selecting and producing interactive multimedia (MI) for science learning	<ol style="list-style-type: none"> 1.Compiling MI storyboards for science learning 2.Developing interactive multimedia science learning based on Android applications 3.Running, debugging, and repairing MI 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Discussing storyboards • Creating storyboards • Examining SAC features • Practicing using SAC tools • Producing images and videos • Producing media with SAC or Powerpoint Exporting to Android emulator to become an APK • Running, debugging and revising 3 X 50 			10%
13	Design, select and produce science learning teaching aids by utilizing the surrounding environment (contextual)	<ol style="list-style-type: none"> 1.Designing science learning props 2.Realizing the design of science learning teaching aids 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • Look at examples of 3 X 50 science learning aids 			10%
14	Design, select and produce science learning teaching aids by utilizing the surrounding environment (contextual)	<ol style="list-style-type: none"> 1.Designing science learning props 2.Realizing the design of science learning teaching aids 	<p>Criteria: Attached</p> <p>Form of Assessment : Project Results Assessment / Product Assessment</p>	<ul style="list-style-type: none"> • In project groups: designing teaching aids, realizing the design, making improvements during the process based on input from lecturers and colleagues 3 X 50 			10%

15	Design, select and produce science learning teaching aids by utilizing the surrounding environment (contextual)	1.Designing science learning props 2.Realizing the design of science learning teaching aids	Criteria: Attached Form of Assessment : Project Results Assessment / Product Assessment	• In project groups: designing teaching aids, realizing the design, making improvements during the process based on input from lecturers and colleagues 3 X 50			10%
16	Final Semester Examination (UAS)		Criteria: Attached	3 X 50			0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	10%
2.	Project Results Assessment / Product Assessment	85%
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.
- 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.