

		<b>Universitas Negeri Surabaya</b> <b>Faculty of Mathematics and Natural Sciences</b> <b>Bachelor of Science Education Study Program</b>						<b>Document Code</b>																																										
<b>SEMESTER LEARNING PLAN</b>																																																		
<b>Courses</b>		<b>CODE</b>	<b>Course Family</b>		<b>Credit Weight</b>		<b>SEMESTER</b>	<b>Compilation Date</b>																																										
Integrated Science Learning and its Application		8420103111			T=3	P=0	ECTS=4.77	0	July 19, 2024																																									
<b>AUTHORIZATION</b>		<b>SP Developer</b>			<b>Course Cluster Coordinator</b>		<b>Study Program Coordinator</b>																																											
		.....			.....		Prof. Dr. Erman, M.Pd.																																											
<b>Learning model</b>	Case Studies																																																	
<b>Program Learning Outcomes (PLO)</b>	PLO study program that is charged to the course																																																	
	Program Objectives (PO)																																																	
	PLO-PO Matrix																																																	
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">P.O</div>																																																
	PO Matrix at the end of each learning stage (Sub-PO)																																																	
		<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td rowspan="2" style="width: 5%;">P.O</td> <td colspan="16">Week</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>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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<b>Short Course Description</b>	This course discusses the integration of physics, chemistry and biology on science topics or themes and is able to apply them in an integrated learning process. Lectures are carried out with presentations and discussions, project assignments integrating science concepts and essential abilities in learning, and reflection.																																																	
<b>References</b>	<b>Main :</b>																																																	
	1. Fogarty, Robin J., Judy Stoehr, and Howard Gardner. 2017. Integrating Curricula With Multiple Intelligences: Teams, Themes, and Threads / Edition 2. New York: SAGE Publications. 2. Hewitt, Paul G., Suzanne A Lyons, John A. Suchocki, Jennifer Yeh, Leslie A. Hewitt. 2006. Practicing Science for Conceptual Integrated Science / Edition 1 . New York, Usa: Addison-Wesley. 3. Robin J. Fogarty, and Brian M. Pete. 2009. How to Integrate the Curricula 3rd Ed . New York: SAGE Publications. 4. Tillery, Bill ,Eldon Enger and Frederick Ross. 2012 . Integrated Science / Edition 6. New York : MC Graw Hill Book.																																																	
	<b>Supporters:</b>																																																	
<b>Supporting lecturer</b>	Prof.Dr. Wahono Widodo, M.Si. Dr. Mohammad Budiyo, S.Pd., M.Pd. Enny Susiyawati, S.Si., M.Sc., M.Pd., Ph.D. Wahyu Budi Sabtiawan, S.Sti., M.Pd.,M.Sc.																																																	
<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>																																											
		<b>Indicator</b>	<b>Criteria &amp; Form</b>	<b>Offline ( offline )</b>	<b>Online ( online )</b>																																													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)																																											

1	Utilizing learning resources and ICT-assisted learning media to explore data, collect information and solve problems to support learning implementation. Mastering the concept of integrated (connected, shared, webbed and integrated) science learning models in junior high school.	1.Explaining the Definition of Natural Science 2.Identifying Characteristics of the Science Study Field 3.Explaining the Objectives of Integrated Science Learning 4.Describe the concept of integrated learning in science	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Strategy Lectures, discussions, presentations 3 X 50			0%
2	Utilizing learning resources and ICT-assisted learning media to explore data, collect information and solve problems to support learning implementation. Mastering the concept of integrated (connected, shared, webbed and integrated) science learning models in junior high school.	1.Analyze the weaknesses and advantages of integration models. 2.Create an example of an integration model in science learning. 3.Create power point presentation media.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Strategy Lectures, discussions, presentations 3 X 50			0%
3	Utilizing learning resources and ICT-assisted learning media to explore data, collect information and solve problems to support learning implementation. Mastering the concept of integrated (connected, shared, webbed and integrated) science learning models in junior high school.	1.Analyze the weaknesses and advantages of integration models. 2.Create an example of an integration model in science learning. 3.Create power point presentation media.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Strategy Lectures, discussions, presentations 3 X 50			0%

4	Utilizing learning resources and ICT-assisted learning media to explore data, collect information and solve problems to support learning implementation. Mastering the concept of integrated (connected, shared, webbed and integrated) science learning models in junior high school.	1.Explaining the Webbed model 2.Create a concept map 3.Using concept maps to find common themes across subjects in junior high school 4.Analyzing competency standards in junior high schools that have similar themes 5.Designing a Syllabus with a Webbed model	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion, workshop and presentation strategies 3 X 50			0%
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6	Utilizing learning resources and ICT-assisted learning media to explore data, collect information and solve problems to support learning implementation. Mastering the concept of integrated (connected, shared, webbed and integrated) science learning models in junior high school.	Communicate the results of integration model analysis.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Strategy Lectures, discussions, presentations 3 X 50			0%

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8	Utilizing learning resources and ICT-assisted learning media to explore data, collect information and solve problems to support learning implementation. Mastering the concept of integrated (connected, shared, webbed and integrated) science learning models in junior high school.	Meeting Indicators 1 to 7	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	3 X 50 test			0%
9	Able to make decisions based on information and data analysis in applying the science education context to plan, implement and evaluate learning activities so that they can be adapted to various learning conditions. Have a responsible attitude towards the task of making integrated science equipment products resulting in self-learning, assignments and agreements with colleagues. Creating book products that are oriented towards integration models	Compiling a book oriented towards integration models.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion and presentation strategy 3 X 50			0%

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11	Able to make decisions based on information and data analysis in applying the science education context to plan, implement and evaluate learning activities so that they can be adapted to various learning conditions. Have a responsible attitude towards the task of making integrated science equipment products resulting in self-learning, assignments and agreements with colleagues. Creating book products that are oriented towards integration models	Compiling a book oriented towards integration models.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion and presentation strategy 3 X 50			0%
12	Able to make decisions based on information and data analysis in applying the science education context to plan, implement and evaluate learning activities so that they can be adapted to various learning conditions. Have a responsible attitude towards the task of making integrated science equipment products resulting in self-learning, assignments and agreements with colleagues. Creating book products that are oriented towards integration models	Compiling a book oriented towards integration models.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion and presentation strategy 3 X 50			0%

13	Able to make decisions based on information and data analysis in applying the science education context to plan, implement and evaluate learning activities so that they can be adapted to various learning conditions. Have a responsible attitude towards the task of making integrated science equipment products resulting in self-learning, assignments and agreements with colleagues. Creating book products that are oriented towards integration models	Compiling a book oriented towards integration models.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion and presentation strategy 3 X 50			0%
14	Able to make decisions based on information and data analysis in applying the science education context to plan, implement and evaluate learning activities so that they can be adapted to various learning conditions. Have a responsible attitude towards the task of making integrated science equipment products resulting in self-learning, assignments and agreements with colleagues. Creating book products that are oriented towards integration models	Communicate book products that have been prepared.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion and presentation strategy 3 X 50			0%
15	Able to make decisions based on information and data analysis in applying the science education context to plan, implement and evaluate learning activities so that they can be adapted to various learning conditions. Have a responsible attitude towards the task of making integrated science equipment products resulting in self-learning, assignments and agreements with colleagues. Creating book products that are oriented towards integration models	Communicate book products that have been prepared.	<b>Criteria:</b> 1.4: correct description 2.3: the description is generally correct, there is one aspect where the explanation is incorrect 3.2: the description is generally correct, there is more than one aspect where the explanation is incorrect 4.1: the description is wrong	Student-centered learning approach (student-centered learning) Deductive learning method Discussion and presentation strategy 3 X 50			0%
16							0%

#### Evaluation Percentage Recap: Case Study

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.