



**Universitas Negeri Surabaya**  
**Faculty of Engineering**  
**, Electrical Engineering Education Undergraduate 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>																																																																																																																					
Learning strategies	8320102224		T=2	P=0	ECTS=3.18	2	July 17, 2024																																																																																																																					
<b>AUTHORIZATION</b>	<b>SP Developer</b>		<b>Course Cluster Coordinator</b>			<b>Study Program Coordinator</b>																																																																																																																						
	.....		.....			Dr. Nur Kholis, S.T., M.T.																																																																																																																						
<b>Learning model</b>	<b>Project Based Learning</b>																																																																																																																											
<b>Program Learning Outcomes (PLO)</b>	<b>PLO study program that is charged to the course</b>																																																																																																																											
	<b>PLO-5</b>	Able to align the electrical and electronics engineering training curriculum in vocational education that is relevant to the demands of global industrial development (Education).																																																																																																																										
	<b>PLO-12</b>	Able to carry out analysis on research and development of electrical engineering and electronics engineering skills programs by following the rules of scientific writing (SSC2.2).																																																																																																																										
	<b>Program Objectives (PO)</b>																																																																																																																											
	<b>PO - 1</b>	Students are able to apply learning strategies (C3) by utilizing learning resources and ICT independently.																																																																																																																										
	<b>PO - 2</b>	Students are able to design lesson plans (C3) in accordance with learning design, innovative learning models, learning media and ICT that are relevant to the development of science and technology																																																																																																																										
	<b>PO - 3</b>	Students are able to make assessments and evaluations of learning (C6) in the form of cognitive, psychomotor and affective abilities oriented towards critical thinking abilities																																																																																																																										
	<b>PO - 4</b>	Students are able to solve electrical engineering education problems (C5) through lesson plans and learning tools that are creative and innovative, and relevant to the development of science and technology and industry																																																																																																																										
	<b>PO - 5</b>	Students implement learning strategies in lesson plans and in class (C3) with a responsible attitude																																																																																																																										
	<b>PLO-PO Matrix</b>																																																																																																																											
		<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>P.O</td> <td>PLO-5</td> <td>PLO-12</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-1</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> </tr> <tr> <td>PO-3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PO-5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						P.O	PLO-5	PLO-12					PO-1							PO-2							PO-3							PO-4							PO-5																																																																																	
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<b>PO Matrix at the end of each learning stage (Sub-PO)</b>																																																																																																																												
	<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> <tr> <td>PO-4</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-5</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																	PO-4																	PO-5																
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<b>Short Course Description</b>	Examining the concept of learning strategies, choosing teaching methods and innovative learning models, analyzing various concepts related to learning, 21st Century teaching skills, and preparing lesson plans according to the applicable curriculum																																																																																																																											
<b>References</b>	<b>Main :</b>																																																																																																																											

1. Depdikbud. 2013. Kurikulum 2013. Jakarta
2. Luthfiyah Nurlaela, dkk. 2019. Strategi Belajar berpikir Kreatif. Jakarta: PT Mediaguru Digital Indonesia
3. Nur Muhammad. 2011. Model Pembelajaran Langsung. Surabaya: Pusat Sains dan Matematika Sekolah Unesa.
4. Nur Muhammad. 2011. Model Pembelajaran Kooperatif. Surabaya: Pusat Sains dan Matematika Sekolah Unesa.
5. Nur Muhammad. 2011. Model Pembelajaran Berdasarkan Masalah. Surabaya: Pusat Sains dan Matematika Sekolah Unesa
6. Olofsson, Anders D. And J. Ola Lendberg. 2012. Informed Design of Educational Technologies in Higher Education: Enhanced Learning and Teaching . USA: IGI Global.
7. Richard I., Arends. 2012. Learning to Teach, Ninth Edition. New York: McGraw-Hill.
8. Wina Sanjaya. 2007. Strategi Pembelajaran Berorientasi Standar Proses Pendidikan. Jakarta: Kencana Prenada Media.
9. Wina Sanjaya. 2008. Perencanaan dan Desain Sistem Pembelajaran. Jakarta: Kencana
10. Jurnal Internasional: ScienceDirect: Elsevier - Computers in Human Behavior; ScienceDirect: Procedia - Social and Behavioral Sciences; Jurnal IEEE

**Supporters:**

**Supporting lecturer**

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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	Examining the basic concepts of learning strategies (SP)	1. Explain the basic concepts of learning strategies 2. Explain the objectives and benefits of the strategy 3. Describe the scope of learning strategies	<b>Criteria:</b> The assessment is carried out on the following aspects: 1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)2. Summative test, assesses all relevant indicators through a written exam, and is given a weight of (2)3. Assessment of RPP products and learning tools is considered as an assignment, the scores are averaged, then given a weight (3)4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3)5. The final NA is (participation value x 2) (Assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Lectures, questions and answers, discussions 2 X 50			0%

2	Identifying learning design	1. Identify learning/instructional design 2. Explain the function of each learning design component/block	<b>Criteria:</b> 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2) 3.2. Summative test, assessing all relevant indicators through a written exam, and given weights (2) 4.3. Assessment of RPP products and learning tools, considered as an assignment, scores are averaged, then given weights (3) 5.4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x 2) (assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Discovery learning and discussion 2 X 50			0%
3	Examining the types of learning media	1. Identify types of learning media 2. Explain the uses of media	<b>Criteria:</b> The assessment is carried out on the following aspects: 1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2) 2. Summative test, assesses all relevant indicators through a written exam, and is given a weight of (2) 3. Assessment of RPP products and learning tools is considered as an assignment, the scores are averaged, then given a weight (3) 4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3) 5. The final NA is (participation value x 2) (Assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Lectures, questions and answers, discussions and assignments 2 X 50			0%

4	Identify the types of assessment	1. Explain the types of assessment 2. Explain how to measure 3. Identify assessment criteria and assessment rubrics	<b>Criteria:</b> The assessment is carried out on the following aspects: 1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)2. Summative test, assesses all relevant indicators through a written exam, and is given a weight of (2)3. Assessment of RPP products and learning tools is considered as an assignment, the scores are averaged, then given a weight (3)4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3)5. The final NA is (participation value x 2) (Assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Lectures, questions and answers, discussions and assignments 3 X 50			0%
5	Examining innovative learning models	1. Discuss the concept of independent learning2. Analyzing types of innovative learning models3. Explains the direct learning model and MPK	<b>Criteria:</b> 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2) 3.2. Summative test, assessing all relevant indicators through a written exam, and given weights (2) 4.5. The final NA is (participation value%2 2) (Assignment value%2 3) (UTS value%2 2) (UAS value#) = divided by 10	Cooperative Learning Model and 3 X 50 group presentations			0%
6	Elearning Learning Development	1. Explain the syntax of the Elearning model2. Explains the steps for developing Elearning	<b>Criteria:</b> The assessment includes aspects of participation in lectures and submission of assignments	Discussion and assignment 3 X 50			0%
7	Examining 21st Century teaching skills	1. Explain 21st Century teaching skills 2. Identify teaching preparation	<b>Criteria:</b> 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)	Discussion, questions and answers, and assignments. 3 X 50			0%

8	Doing UTS questions/assignments	Learning design, media, assessment and learning models	<b>Criteria:</b> 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2) 3.2. Summative test, assessing all relevant indicators through a written exam, and given weights (2) 4.3. Assessment of RPP products and learning tools, considered as an assignment, scores are averaged, then given weights (3) 5.4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value%2 2) (Assignment value%2 3) (UTS value%2 2) (UAS value#) = divided by 10	Test method 3 X 50			0%
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9	Examining the 2013 Curriculum and its components	1. Analyze differences in curriculum 2. Explain the process of developing syllabus and lesson plans 3. Explain how to develop indicators and learning objectives	<b>Criteria:</b> 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2) 3.2. Summative test, assessing all relevant indicators through a written exam, and given weights (2) 4.3. Assessment of RPP products and learning tools, considered as an assignment, scores are averaged, then given weights (3) 5.4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3) 6.5. The final NA is (participation value x 2) (assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Discovery learning. 3 X 50			0%
10	Develop Indicators and Learning Objectives referring to the KD to be achieved	1. Select one KD from the Curriculum 2. Create Indicators and Learning Objectives based on KD3. Explain the ABCD Method for learning purposes4. Give examples of learning objectives	<b>Criteria:</b> 1. The assessment is carried out on the following aspects: 2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2) 3.2. Assessment of the alignment of indicators, learning objectives with KD 4.3. Assessment of the verbs used in the learning objectives in the HOTS area	Lecture, question and answer, discussion, and administration tasks. 3 X 50			0%

11	Develop learning models according to KD and learning objectives	<p>1. Choose a learning model according to the learning objectives.  2. Arrange syntax according to the learning model</p>	<p><b>Criteria:</b>  1. The assessment is carried out on the following aspects:  2.1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)  3.2. Summative test, assessing all relevant indicators through a written exam, and given weights (2)  4.3. Assessment of RPP products and learning tools, considered as an assignment, scores are averaged, then given weights (3)  5.4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3)  6.5. The final NA is (participation value x 2) (assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10</p>	Lectures, demonstrations, questions and answers, discussions and consultations. 3 X 50			0%
12	Develop assessment criteria and assessment rubrics	<p>1. Choose the type of assessment 2. Create an assessment grid 3. Create assessment criteria and rubrics</p>	<p><b>Criteria:</b>  The assessment is carried out on the following aspects: 1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)2. Summative test, assesses all relevant indicators through a written exam, and is given a weight of (2)3. Assessment of RPP products and learning tools is considered as an assignment, the scores are averaged, then given a weight (3)4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3)5. The final NA is (participation value x 2) (Assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10</p>	Lectures, discussions and assignments. 3 X 50			0%

13	Compiling Modules and Worksheets	1. Explain the difference between modules and textbooks 2. Explain the steps for compiling modules 3. Explain the module assessment instruments	<b>Criteria:</b> The assessment is carried out on the following aspects: 1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)2. Summative test, assesses all relevant indicators through a written exam, and is given a weight of (2)3. Assessment of RPP products and learning tools is considered as an assignment, the scores are averaged, then given a weight (3)4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3)5. The final NA is (participation value x 2) (Assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Lectures, discussions and assignments. 3 X 50			0%
14	Create individual lesson plans and learning tools	Create a complete RPP from school identity to evaluation.	<b>Criteria:</b> The assessment is carried out on the following aspects: 1. Participation during lectures (asking questions, submitting opinions) is carried out through observation (weight 2)2. Summative test, assesses all relevant indicators through a written exam, and is given a weight of (2)3. Assessment of RPP products and learning tools is considered as an assignment, the scores are averaged, then given a weight (3)4. Performance scores when presenting assignments plus 2x the value of the RPP are averaged as UAS scores, given a weight of (3)5. The final NA is (participation value x 2) (Assignment value x 3) (UTS value x 2) (UAS value x3) = divided by 10	Discussion and consultation. 3 X 50			0%
15							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.