



**Universitas Negeri Surabaya**  
**Faculty of Engineering,**  
**Building 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>																																										
Drawing of a 2 Floor Residential House	8320502274		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. Gde Agus Yudha Prawira Adistana, S.T., M.T.																																											
<b>Learning model</b>	Project Based Learning																																																
<b>Program Learning Outcomes (PLO)</b>	PLO study program which is charged to the course																																																
	Program Objectives (PO)																																																
	PLO-PO Matrix																																																
		P.O																																															
	PO Matrix at the end of each learning stage (Sub-PO)																																																
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">P.O</td> <td colspan="15" style="text-align: center;">Week</td> </tr> <tr> <td></td> <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>	Introduction to drawing working drawings for 2-story public facility buildings consisting of Architectural Drawings (plans, views, cuts, roofs), Structural Drawings (foundations, 2nd floor column beams, ring barks, plate plans and portals) and Mechanical Electrical Drawings (point installation lights, clean and dirty water installations), along with detailed drawings. Lectures are held through an expository approach in the form of lectures and questions and answers followed by discussion and reflection activities which are complemented by the use of LCD, OHP, and an inquiry approach, namely partial/structured completion of individual assignments.																																																
<b>References</b>	<b>Main :</b>																																																
	<ol style="list-style-type: none"> <li>1. Irfan A. Buku Ajar Menggambar Teknik. Surabaya: Unesa Press.</li> <li>2. Frederick E Giesecke. Technical Drawinf. Pearson Internasional Edition</li> <li>3. Soemadi R. Konstruksi Bangunan Gedung.</li> <li>4. Soegihardjo R. Gambar-gambar Dasar Ilmu Bangunan.</li> <li>5. Seelye E. 1959. Design, Data Book for Civil Engineers. New York: John Willey &amp; Sons.</li> <li>6. Irfan A. 2004. Menggambar Struktur Bangunan I. Surabaya: JTS FT Unesa.</li> </ol>																																																
	<b>Supporters:</b>																																																
<b>Supporting lecturer</b>	Hendra Wahyu Cahyaka, S.T., M.T. Prof. Dr. Agus Wiyono, S.Pd., M.T.																																																
<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	Introduction, Lecture Journal, Introduction to Drawing Civil Buildings	Can draw 1st and 2nd floor plans	<b>Criteria:</b> Completed 2 floor plan  <b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Delivering RPS, Introduction to Building Structures level 2, delivering examples of floor plans that can be used for standard drawings and carrying out 2 X 50 floor plan drawing exercises			5%
2	Drawing of foundations and sloof columns	Can complete foundation plan drawings	<b>Criteria:</b> Can complete foundation drawings  <b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explain the types of foundations, practice drawing column foundations and 2 X 50 sloofs			5%
3	planning and drawing plans for beams and ring balks	Complete the beam and ring balk plan drawings	<b>Criteria:</b> Finish drawing the plan for the beam and ring balk  <b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains planning 2 X 50 beams and ring balks			5%
4			<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains planning a roof and practice drawing 2 X 50			0%
5	Draw a roof plan		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains planning a roof and practice drawing 2 X 50			0%
6			<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains how to draw a 2 X 50 cut			0%
7	Draw a longitudinal cut		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains how to draw a 2 X 50 cut			0%
8	Drawing of a 1 Floor Residential House (Front and Side Views)---- Midterm Exam		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Carrying out UTS 2 X 50			0%
9	Drawing a 2 Floor Residential House – ARCHITECTURAL – 1st Floor and 2nd Floor Plans (AutoCAD)		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explain the visible image, frame, elevation, roof, etc. 2 X 50			0%

10	Draw a floor plate plan		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains the method/format for drawing a 2 X 50 floor plate			0%
11	Drawing portals		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains how to draw a 2 X 50 portal			0%
12	Drawing of stairs (structure)		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains how to draw a 2 X 50 ladder			0%
13	Drawing of clean water and dirty water installations		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explaining the installation drawing for clean water and dirty water 2 X 50			0%
14	Drawing of electrical installations		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains how to draw a 2 X 50 electrical installation			0%
15	Floor Slab Reinforcement Plan and Slab Details		<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Explains the picture of the 2 X 50 dirty water disposal installation			0%
16			<b>Form of Assessment :</b> Project Results Assessment / Product Assessment	Working on UAS questions			0%

**Evaluation Percentage Recap: Project Based Learning**

No	Evaluation	Percentage
1.	Project Results Assessment / Product Assessment	15%
		15%

**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** abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities 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.

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.