

		Universitas Negeri Surabaya Vocational Faculty, D4 Transportation Study Program					Document Code																																	
SEMESTER LEARNING PLAN																																								
Courses		CODE	Course Family		Credit Weight		SEMESTER	Compilation Date																																
CAD DRAWING		3930102045			T=2	P=0	ECTS=3.18	2 July 16, 2024																																
AUTHORIZATION		SP Developer		Course Cluster Coordinator		Study Program Coordinator																																		
			Dr. Anita Susanti, S.Pd., M.T.																																		
Learning model	Project Based Learning																																							
Program Learning Outcomes (PLO)	PLO study program that is charged to the course																																							
	Program Objectives (PO)																																							
	PLO-PO Matrix																																							
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Short Course Description	Introduction to drawing working drawings for 2-3 storey public facility buildings consisting of Architectural Drawings (plans, views, cuts, roofs), Structural Drawings (foundations, column beams, ring barks and portals) and Mechanical Electrical Drawings (light point installation, installation clean and dirty water), along with detailed pictures. 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.																																							
	<table border="1" style="margin: auto;"> <tr> <td rowspan="2" style="width: 10%; text-align: center;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 5%; text-align: center;">1</td> <td style="width: 5%; text-align: center;">2</td> <td style="width: 5%; text-align: center;">3</td> <td style="width: 5%; text-align: center;">4</td> <td style="width: 5%; text-align: center;">5</td> <td style="width: 5%; text-align: center;">6</td> <td style="width: 5%; text-align: center;">7</td> <td style="width: 5%; text-align: center;">8</td> <td style="width: 5%; text-align: center;">9</td> <td style="width: 5%; text-align: center;">10</td> <td style="width: 5%; text-align: center;">11</td> <td style="width: 5%; text-align: center;">12</td> <td style="width: 5%; text-align: center;">13</td> <td style="width: 5%; text-align: center;">14</td> <td style="width: 5%; text-align: center;">15</td> <td style="width: 5%; text-align: center;">16</td> </tr> </table>								P.O	Week																1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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References	Main :																																							
	<ol style="list-style-type: none"> 1. Frederick E Giesecke. 1986 . Technical Drawing . USA: Pearson International Edition 2. Soemadi, R. 1972. Konstruksi Bangunan Gedung . Bandung: ITB 3. Soegihardjo, R. 1975. Gambar-gambar Dasar Ilmu Bangunan . Yogyakarta: R. Soegihardjo B.A.E 4. Seelye, Elwyn. 1959. Design: Data Book for Civil Engineers . New York: John Willey & Sons. 5. Irfan, Achmad. 2004. Menggambar Struktur Bangunan I . Surabaya: JTS – FT – Unesa. 																																							
	Supporters:																																							
Supporting lecturer	Amanda Ristriana Pattisinai, S.T., M.T. R. Endro Wibisono, S.Pd., M.T. Kusuma Refa Haratama, S.Pd., M.Sc.																																							
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	Able to draw 2 floor plans	<ol style="list-style-type: none"> 1. Identify image notations 2. Explain image notation 3. Apply floor plan images 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and practice drawing 3 X 50			5%
2	Able to draw 2 floor plans	<ol style="list-style-type: none"> 1. Identify image notations 2. Explain image notation 3. Apply floor plan images 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and practice drawing 3 X 50			5%
3	Able to draw foundations, column beams, ring beams	<ol style="list-style-type: none"> 1. Identify drawing notations for foundations, column beams, ring balk beams 2. Explain the function and depiction of foundations, column beams, ring balk beams 3. Applying images of foundations, column beams, ring balk beams 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and drawing practice. 10 X 50			5%
4	Able to draw floor plates, roof plans	<ol style="list-style-type: none"> 1. Identify floor plate drawing notations, roof plans 2. Explain the function and depiction of floor plates, roof plans 3. Apply floor plate drawings, roof plans 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and practice drawing 6 X 50			5%
5	Able to draw pieces, looks	<ol style="list-style-type: none"> 1. Identify the cut image notation, visible 2. Explains the function and depiction of pieces, looks 3. Applying the cut plan drawing, visible 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and drawing practice. 3 X 50 exercises			5%

6	Able to draw pieces, looks	<ol style="list-style-type: none"> 1. Identify the cut image notation, visible 2. Explains the function and depiction of pieces, looks 3. Applying the cut plan drawing, visible 		Lectures, discussions and questions and answers and drawing practice. 3 X 50 exercises			5%
7	Able to draw portals, water installations and electrical installations	<ol style="list-style-type: none"> 1. Identify portal drawing notations, water installations and electrical installations 2. Explain the function and depiction of portals, water installations and electrical installations 3. Applying pictures of portals, water installations and electrical installations 	Form of Assessment : Practice / Performance	Lectures, discussions and questions and answers and drawing practice. 6 X 50			5%
8	UTS	UTS	Form of Assessment : Project Results Assessment / Product Assessment, Test	Giving 2 X 50 Written Tests			10%
9	Able to draw 3 floor plans	<ol style="list-style-type: none"> 1. Identify image notations 2. Explain image notation 3. Apply floor plan images 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and practice drawing 3 X 50			10%
10	Able to draw foundations, column beams, ring beams	<ol style="list-style-type: none"> 1. Identify drawing notations for foundations, column beams, ring balk beams 2. Explain the function and depiction of foundations, column beams, ring balk beams 3. Applying images of foundations, column beams, ring balk beams 	Form of Assessment : Practice / Performance	Lectures, discussions and questions and answers and drawing practice. 10 X 50			10%

11	Able to draw floor plates, roof plans	<ol style="list-style-type: none"> 1. Identify notations on floor plate drawings, roof plans 2. Explain the function and depiction of floor plates, roof plans 3. Apply floor plate drawings, roof plans 	Forms of Assessment : Participatory Activities, Project Results Assessment / Product Assessment, Practices / Performance	Lectures, discussions and questions and answers and drawing practice. 6 X 50			5%
12	Able to draw pieces, looks	<ol style="list-style-type: none"> 1. Identify the cut image notation, visible 2. Explains the function and depiction of pieces, looks 3. Applying the cut plan image, visible 	Criteria: 5 Form of Assessment : Practice / Performance	Lectures, discussions and questions and answers and drawing practice. 3 X 50 exercises			5%
13	Able to draw pieces, looks	<ol style="list-style-type: none"> 1. Identify the cut image notation, visible 2. Explains the function and depiction of pieces, looks 3. Applying the cut plan image, visible 	Form of Assessment : Participatory Activities	Lectures, discussions and questions and answers and drawing practice. 3 X 50 exercises			5%
14	Able to draw portals	<ol style="list-style-type: none"> 1. Identify portal drawing notations, water installations and electrical installations 2. Explain the function and depiction of portals, water installations and electrical installations 3. Applying pictures of portals, water installations and electrical installations 	Form of Assessment : Practice / Performance	Lectures, discussions and questions and answers and drawing practice. 6 X 50			5%

15	Able to draw, water installation and electrical installation	<ol style="list-style-type: none"> 1. Identify drawing notations for water installations and electrical installations 2. Explain drawing notations for water installations and electrical installations 3. Apply drawings of water installations and electrical installations 	Form of Assessment : Practice / Performance	Lectures, discussions and questions and answers and practice drawing 3 X 50		4%
16	Able to draw, water installation and electrical installation	<ol style="list-style-type: none"> 1. Identify drawing notations for water installations and electrical installations 2. Explain drawing notations for water installations and electrical installations 3. Apply drawings of water installations and electrical installations 	Form of Assessment : Project Results Assessment / Product Assessment, Test	Lectures, discussions and questions and answers and practice drawing 3 X 50		15%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	41.67%
2.	Project Results Assessment / Product Assessment	14.17%
3.	Practice / Performance	30.67%
4.	Test	12.5%
		99.01%

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.