	Universitas Negeri Surabaya Vocational Faculty, D4 Transportation Study Program	Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Advanced Engineering Drawing	99993940102032		T=0	P=2	ECTS=3.18	4	July 17, 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

	P.O

PO Matrix at the end of each learning stage (Sub-PO)

P.O	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Short Course Description	Introduction to drawing working drawings for a 3-storey low-rise building consisting of Architectural Drawings (plans, views, cuts, roofs), Structural Drawings (foundations, 2nd floor column beams, ring balks and 3rd floor beams, plates, portals) and Mechanical Drawings Electrical (light point installation, clean and dirty water installation), 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 equipped with the use of LCD, OHP, and an inquiry approach, namely partial/structured completion of individual assignments.
References	**Main :**

1. Frederick E Giesecke.Technical Draw inf. Pearson Internasional Edition
2. Soemadi R. Konstruksi Bangunan Gedung.
3. Soegihardjo R. Gambar-gambar Dasar Ilmu Bangunan.
4. Seelye E. 1959. Design, Data Book for Civil Engineers. New York: John Willey & Sons.
5. Irfan A. 2004. Menggambar Struktur Bangunan I. Surabaya: JTS 13 FT 13 Unesa
6. Benny Puspantoro.1996. Konstruksi Bangunan Gedung Bertingkat Rendah. Yogyakarta: Universitas Atma Jaya

	Supporters:
Supporting lecturer	Hendra Wahyu Cahyaka, S.T., M.T. Prof. Dr. Agus Wiyono, S.Pd., M.T. Purwo Mahardi, S.T., M.Sc. Amanda Ristriana Pattisinai, S.T., M.T.

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 plans	1. Identify image notations 2. Explain image notation 3. Apply floor plan images		Lectures, discussions and questions and answers and practice drawing 2 X 50			0%
2	Able to draw plans	1. Identify image notations 2. Explain image notation 3. Apply floor plan images		Lectures, discussions and questions and answers and practice drawing 2 X 50			0%
3	Able to draw foundations and sloof columns	1. Identify foundation drawing notations 2. Explain the function and depiction of foundation drawings 3. Applying foundation drawings		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%
4	Able to draw 2nd floor column beams and 3rd floor ring beams	1. Identify the drawing notations for 2nd floor column beams and 3rd floor ring beams 2. Explain the function and depiction of 2nd floor column beams and 3rd floor ring beams 3. Apply the image of the 2nd floor column beam and the 3rd floor ring beam		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%
5	Able to draw roof plans	1. Identify roof plan drawing notations 2. Explain the function and depiction of roof plans 3. Apply the roof plan drawing		Lectures, discussions and questions and answers and drawing practice. Exercise 2 X 50			0%

6	Able to draw roof plans	1. Identify roof plan drawing notations 2. Explain the function and depiction of roof plans 3. Apply the roof plan drawing		Lectures, discussions and questions and answers and drawing practice. Exercise 2 X 50			0%
7	UTS	UTS	**Criteria:** 100 marks, if you do the questions correctly, completely and neatly	Test 2 X 50			0%
8	Able to draw pieces	1. Identify cut drawing notations 2. Explain the function and depiction of pieces 3. Apply cutout images		Lectures, discussions and questions and answers and drawing practice. Exercise 2 X 50			0%
9	Able to draw pieces	1. Identify cut drawing notations 2. Explain the function and depiction of pieces 3. Apply cutout images		Lectures, discussions and questions and answers and drawing practice. Exercise 2 X 50			0%
10	Able to draw looks	1. Identify visible image notation 2. Explain the function and visual depiction 3. Apply visible images		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%
11	Able to draw looks	1. Identify visible image notation 2. Explain the function and visual depiction 3. Apply visible images		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%

12	Able to draw floor plates	1. Identify floor plate drawing notations 2. Explain the function and depiction of floor plates 3. Apply the floor plate image		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%
13	Able to draw portals	1. Identify portal image notations 2. Explain the function and depiction of the portal 3. Applying the portal image		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%
14	Able to draw detailed stairs (structural and architectural drawings)	1. Identifying notations for ladder drawings 2. Explain the function and depiction of stairs 3. Apply the stairs image		Lectures, discussions and questions and answers and drawing practice. 2 X 50			0%
15	Able to draw clean and dirty water installation plans and electrical installations	Identify drawing notations for water and electricity installations	**Criteria:** Do it correctly and completely	Lectures, discussions and questions and answers and drawing practice. 2 X 50			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.