



Universitas Negeri Surabaya
Faculty of Engineering,
Building Engineering Education Undergraduate Study Program

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date																																
Building Structure II	8320503217		T=3	P=0	ECTS=4.77	2	July 18, 2024																																
AUTHORIZATION		SP Developer		Course Cluster Coordinator		Study Program Coordinator																																	
			Dr. Gde Agus Yudha Prawira Adistana, S.T., M.T.																																	
Learning model	Case Studies																																						
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)	PO Matrix at the end of each learning stage (Sub-PO)																																						
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="2" style="width: 5%;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 5%;">1</td> <td style="width: 5%;">2</td> <td style="width: 5%;">3</td> <td style="width: 5%;">4</td> <td style="width: 5%;">5</td> <td style="width: 5%;">6</td> <td style="width: 5%;">7</td> <td style="width: 5%;">8</td> <td style="width: 5%;">9</td> <td style="width: 5%;">10</td> <td style="width: 5%;">11</td> <td style="width: 5%;">12</td> <td style="width: 5%;">13</td> <td style="width: 5%;">14</td> <td style="width: 5%;">15</td> <td style="width: 5%;">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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Short Course Description	This course provides understanding and mastery of theories in the construction of low-rise buildings which include stairs, roofs, formwork, gutter construction, bathrooms, septic tanks, sanitation and partition walls. Students' abilities/skills in applying theory in the form of working drawings (graphics) are a very important supporting element in this course. 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 an LCD, OHP, and an inquiry approach, namely partial/structured completion of individual assignments. Learning Outcomes																																						
References	Main :																																						
	<ol style="list-style-type: none"> 1. Benny Puspantoro.1996. Konstruksi Bangunan Gedung Bertingkat Rendah . Yogyakarta: Universitas Atma Jaya 2. Tamrin A. 2008. Teknik Konstruksi Bangunan Gedung . Jakarta: Depdiknas 3. Dian Ariestadi. 2008. Teknik Struktur Bangunan . Jakarta: Depdiknas 4. Suparno. 2008. Teknik Gambar Bangunan . Jakarta: Depdiknas 																																						
	Supporters:																																						
Supporting lecturer	SUDIJONO Hendra Wahyu Cahyaka, 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	Understand the various forms of stairs	Students are able to describe the various forms of stairs		Lecture Question and Answer Discussion 3 X 50			0%																																

2	Understand the parts and arrangement of stairs. Understand the requirements for stairs	<ol style="list-style-type: none"> 1.Students are able to: Describe the parts of a ladder 2.Describe the arrangement of the stairs 3.Explain the requirements for stairs 		Lecture Question and Answer Discussion 3 X 50			0%
3	Understand the various types of stairs (steel concrete, wood and stone) Apply the theory of stairs (steel concrete, wood and stone) to the picture	<ol style="list-style-type: none"> 1.Students are able to: Explain various types of stairs (concrete, steel, wood and stone) 2.Drawing of stairs (concrete, steel, wood and stone) 		Lecture Question and Answer Discussion 3 X 50 Drawing Workshop			0%
4	Understand the various roof shapes	Students are able to explain the various shapes of roofs		Lecture Question and Answer Discussion 3 X 50			0%
5	Understand matters related to roof frame construction	Students are able to explain things related to roof frame construction		Lecture Question and answer Discuss 3 X 50			0%
6	Understanding things related to steel and galvalume concrete wooden trusses Applying the theory of steel and galvalum concrete wooden trusses to drawings	<ol style="list-style-type: none"> 1.Students are able to: Explain things related to wooden horses 2.Explain things related to concrete trusses 3.Explain things related to steel horses 4.Explain things related to galvalum trusses 5.Drawing of steel and galvalume concrete wooden easels 		Lecture Question and Answer Discussion 3 X 50 Drawing Workshop			0%
7	Applying theory to find the actual length of the spokes Applying theory to find the actual length of the spokes in the picture Knowing the types of roof covering materials	<ol style="list-style-type: none"> 1.Students are able to: Calculate the actual length of the foreleg based on certain prerequisites 2.Drawing of jurai 3.Identify the types of roof covering materials 		Lectures, Questions and Answers, Discussions, 3 X 50 Drawing Workshop			0%

8	Understanding the meaning of formwork Understanding formwork requirements Knowing formwork materials Understanding things related to beam, column and plate formwork Applying beam, column and plate formwork in the drawing	1.Students are able to: Define the meaning of formwork 2.Explain formwork requirements 3.Identify formwork materials 4.Explain matters related to beam, column and plate formwork 5.Drawing formwork for beams, columns and plates		Lectures, Questions and Answers, Discussions, 3 X 50 Drawing Workshop			0%
9	UTS	UTS	Criteria: Get a score of 100 if you answer all the questions correctly	3 X 50 test			0%
10	Know the materials for making water gutters. Understand the requirements for water gutters	1.Students are able to: Identify materials for making water gutters 2.Explain the requirements for gutters		Lecture, Question and Answer, Discussion 3 X 50			0%
11	Understand the various forms of gutter construction. Apply the various forms of gutter construction in the picture	1.Students are able to: Explain the various forms of gutter construction 2.Draw various forms of gutter construction		Lectures, Questions and Answers, Discussions, 3 X 50 Drawing Workshop			0%
12	Understanding bathroom construction requirements Understanding the types of bathrooms Dry bathrooms Wet bathrooms Wet Dry bathrooms Applying the theory of various types of bathrooms to the picture	1.Students are able to: Explain the requirements for bathroom construction 2.Explain the types of bathrooms 3.Dry bathroom 4.Wet bathroom 5.Wet Dry Bathroom 6.Drawing of dry, wet and wet dry bathrooms		Lectures, Questions and Answers, Discussions, 3 X 50 Drawing Workshop			0%
13	Understanding the meaning of a septic tank. Understanding the requirements for a septic tank	1.Students are able to: Understand the meaning of septic tank 2.Explain bathroom construction requirements		Understanding septic tanks. Requirements for 3 X 50 septic tanks			0%

14	Knowing the materials for making septic tanks Understanding things related to control tanks Applying knowledge about materials for making septic tanks and control tanks in the picture	1.Students are able to: Identify the materials for making septic tanks 2.Explain matters related to tub control 3.Draw the materials for making a septic tank and control tank in the picture		Lecture, Question and Answer, Discussion 3 X 50			0%
15							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.**