



**Universitas Negeri Surabaya
Faculty of Postgraduate School,
Master of Technology and Vocational Education Study Program**

Document Code

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight	SEMESTER	Compilation Date																																
Behavior of Building Structures	8310103023		T=3 P=0 ECTS=6.72	2	July 18, 2024																																
AUTHORIZATION	SP Developer		Course Cluster Coordinator		Study Program Coordinator																																
		Dr. Ir. Achmad Imam Agung, M.Pd.																																
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																																			
Short Course Description	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: 3%;">1</td> <td style="width: 3%;">2</td> <td style="width: 3%;">3</td> <td style="width: 3%;">4</td> <td style="width: 3%;">5</td> <td style="width: 3%;">6</td> <td style="width: 3%;">7</td> <td style="width: 3%;">8</td> <td style="width: 3%;">9</td> <td style="width: 3%;">10</td> <td style="width: 3%;">11</td> <td style="width: 3%;">12</td> <td style="width: 3%;">13</td> <td style="width: 3%;">14</td> <td style="width: 3%;">15</td> <td style="width: 3%;">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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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																					
References	<p>Main :</p> <ol style="list-style-type: none"> 1. Anonim. 1979. Peraturan Beton Bertulang Indonesia NI-2 Cetakan ke 7. Bandung: Direktorat Masalah Bangunan 2. Amrinsyah Nasution. 2009. Metode Matrik Kekakuan Analisis Struktur. Bandung: Unipress ITB 3. Bowles Josep E. 1997. Fooundation Analysis and Design. Jakarta: Erlangga 4. Charles G. Salmon dan John E. Johnson. 1980. Struktur Baja Disain dan Perilaku. Jakarta: Erlangga 5. Eward G. Nawy. 2001. Beton Prategang Suatu Pendekatan Mendasar. Jakarta: Erlangga 6. Kusuma dan Andrianto T. 1993. Desain Struktur Rangka Beton Bertualang di Daerah Rawan Gempa Seri Beton 3. Jakarta: Erlangga <p>Supporters:</p>																																				
Supporting lecturer	KUSNAN Arie Wardhono, S.T., M.MT., M.T., Ph.D.																																				
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 (<i>offline</i>)	Online (<i>online</i>)																																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)																														

1	Introduction related to lecture material and weight. Able to analyze the planning of a structured building	Explaining the material and weight of lectures. Understanding building structural engineering	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Question/answer presentation and reflection 3 X 50			0%
2	Able to understand the determination of building materials according to SNI	Understand the determination of building materials according to SNI	Criteria: Students get full marks if they can complete the assignment accurately and correctly	Question/answer presentation and reflection 3 X 50			0%
3	Able to find high quality concrete	Understanding Looking for high quality concrete	Criteria: Students get full marks if they can complete the assignment accurately and correctly	Presentation, Question/answer and reflection 3 X 50			0%
4	Able to understand structural planning with the stability of a single-storey portal frame and lots of concrete and steel raw materials	Understand structural planning with the stability of portal frames made of concrete and steel	Criteria: Students get full marks if they can complete the assignment accurately and correctly	Presentation, Question/answer and reflection 3 X 50			0%
5	Understand the deflection that occurs in steel concrete construction and other construction	Understanding the deflections that occur in steel concrete construction	Criteria: Students get full marks if they can complete the assignment accurately and correctly	Presentation, Question/answer and reflection 3 X 50			0%
6	Understand about buildings with concrete composite structural frames	Understanding concrete composite structural frames	Criteria: Students get full marks if they can complete the assignment accurately and correctly	Presentation, Question/answer and reflection 3 X 50 composite material			0%
7	Able to understand the AISC Working Stress Planning Criteria	Understanding AISC Working Stress	Criteria: Students get full marks if they can complete the assignment accurately and correctly	Presentation, Question/answer and reflection 3 X 50			0%
8	UTS	UTS	Criteria: UTS	UTS 3 X 50			0%
9	Able to understand frame, portal and load structural systems	Able to understand frame, portal and load structural systems	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%
10	Able to understand Loading Specifications on Bridges and Roads	Understanding Loading on Bridges and Roads	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%
11	Able to understand AISC Working Stress Planning Criteria (Steel Construction)	Understanding AISC Working Stress (Steel Construction)	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%
12	Able to understand AISC Plastic Planning Criteria	Understanding AISC Plastic Planning	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%
13	Understand the basic assumptions for calculating short-term deflections on structural components	Understand the basic assumptions of deflection calculations	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%

14	Understand the basic assumptions for calculating short-term deflections on structural components	Understand the basic assumptions of deflection calculations	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%
15	Able to understand short-term deflection calculations for cracked and non-cracked structural components	Understanding cracked and non-cracked structural components	Criteria: Students get full marks if they are able to complete the assignment correctly and precisely	Presentation, Question/answer and reflection 3 X 50			0%
16							0%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
		0%

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** 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.
- 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.
- 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.
- 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.
- Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- 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%.
- TM=Face to face, PT=Structured assignments, BM=Independent study.