

## Universitas Negeri Surabaya Vocational Faculty, D4 Civil Engineering Study Program

Document Code

## SEMESTER LEARNING PLAN

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		1.         SNI-03-1           2.         SNI-172           3.         SNI 1720           4.         William           5.         Jack Mc           6.         Dennis L           7.         Agus Se           8.         Rudy Gu	729. 2002. Tata ( 9. 2020. Spesifika 6. 2012. Tata Cara F Segui. 2007. Ste . Cormac. 2008. S .am. 2004. Struct tiawan. 2008. Per inawan. 2000. Tal	Cara Perencanaan Struktu isi Untuk Bangunan Gedur a Perencanaan Ketahanar eel Design. Structural Steel Design. ural Steel Work . rencanaan Struktur Baja de bel Profil Konstruksi Baja.	r Baja Untuk E 1g Baja Struktu 1 Gempa Untul engan Metode	Bangunan Gedung. ural. k Struktur Bangunan Gec LRFD. Jakarta: Erlangga	lung dan Non Ger	dung
Support lecturer	ing	Anggi Rahmad Z Berkat Cipta Zeg	ulfikar, M.T. a, S.Pd., M.Eng.					
Week-	Week-		Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [ References	Assessment Weight (%)
	(Su	Ď-РО)	Indicator	Criteria & Form	Offline( <i>offline</i> )	Online ( <i>online</i> )	1	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Gi ch str	et to know the aracteristics of eel construction	Explain the characteristics of steel	Criteria: Full marks if the report is bound, the report is arranged sequentially, and in accordance with theory		Lectures, discussions and questions and answers 2 X 50	Material: Introduction to steel structures Reference: SNI-03-1729. 2002. Procedures for Planning Steel Structures for Buildings. Material: Introduction to SNI Steel Library: SNI- 1729. 2020. Specifications for Structural Steel Buildings. Material: Introduction References Bibliography: William T Segui. 2007. Steel Design. Material: Introduction Bibliography: William T Segui. 2007. Steel Design. Material: Introduction Bibliography reference: Agus Setiawan. 2008. Steel Structure Design using the LRFD Method. Jakarta: Erlangga	0%
2	St	udents are able plan tensile rods	Explain the design of tension rods	Criteria: Full marks if the answers are complete, sequential, clear and correct	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Welded Joint Planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%

3	Students are able to plan tensile rods	Explain the design of tension rods	Criteria: Full marks if the answers are complete, sequential, clear and correct		Lectures, discussions, questions and answers, and 2 X 50 exercises	Material: Tensile rod planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%
						Material: Steel profile selection Reader: Rudy Gunawan. 2000. Steel Construction Profile Table.	
						Material: Tensile rod planning Reference: William T Segui. 2007. Steel Design.	
4	Students are able to plan compression members	Explain the design of compression members	Criteria: Full marks if the answers are complete, sequential, clear and correct	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Design of compressed rods <b>Reference:</b> SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%
						Material: Steel profile selection Reader: Rudy Gunawan. 2000. Steel Construction Profile Table.	
						Material: Tensile rod planning Reference: William T Segui. 2007. Steel Design.	

5	Students are able to plan compression members	Explain the design of compression members	Criteria: Full marks if the answers are complete, sequential, clear and correct Form of Assessment : Participatory Activities, Practice/Performance	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Design of compressed rods Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings. Material: Steel profile selection Reader: Rudy Gunawan. 2000. Steel Construction Profile Table. Material: Design of compressed rods Reference: Agus Setiawan. 2008. Steel Structure Design using the LRFD Method. Jakarta: Erlangga	10%
6	Students are able to plan connections in steel construction (bolted connections)	Explain the planning of connections in steel construction (bolted connections)	Criteria: Full marks if the answers are complete, sequential, clear and correct		Lectures, discussions, questions and answers, and 2 x 50 exercises	Material: Bolted connection planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%
7	Students are able to plan connections in steel construction (bolted connections)	Explain the planning of connections in steel construction (bolted connections)	Criteria: Full marks if the answers are complete, sequential, clear and correct	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Bolted connection planning <b>Reference:</b> SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%
8	Completing the Last Semester Exam (UTS)	Complete assignments in the time provided and get maximum marks.	Form of Assessment : Test	Written exam 2 X 50			20%
9	Students are able to plan joints in steel construction (welded joints)	Explain the planning of connections in steel construction (welded connections)	Criteria: Full marks if the answers are complete, sequential, clear and correct Form of Assessment : Participatory Activities	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Welded Joint Planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%
10	Students are able to plan joints in steel construction (welded joints)	Explain the planning of connections in steel construction (welded connections)	Criteria: Full marks if the answers are complete, sequential, clear and correct Form of Assessment : Practice / Performance	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Welded Joint Planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings.	10%

11	Students are able to plan blocks	Explain ASD and LRFD planning on beams	Criteria: Full marks if the answers are complete, sequential, clear and correct		Lectures, discussions, questions and answers, and 2 X 50 exercises	Material: Beam planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings.	0%
						Material: Beam planning Reference: SNI-03-1729. 2002. Procedures for Planning Steel Structures for Buildings.	
						Material: Beam planning Reader: Jack Mc. Cormac. 2008. Structural Steel Design.	
12	Students are able to plan blocks	Explain ASD and LRFD planning on beams	Criteria: Full marks if the answers are complete, sequential, clear and correct	Lectures, discussions, questions and answers, and 2 X 50 exercises		Material: Beam planning Reference: SNI-1729. 2020. Specifications for Structural	0%
						Steel Buildings.	
						Steel Buildings. Material: Beam planning Reader: Jack Mc. Cormac. 2008. Structural Steel Design.	

13	Students are able to plan beam- column	Explain ASD and LRFD planning for beam- columns	Criteria: Full marks if the answers are complete, sequential, clear and correct	Lectures, discussions, questions and answers, and 2 X 50 exercises	Material: Column beam planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings. Material: Earthquake load planning on columns References: SNI 1726. 2012. Procedures for Earthquake Resistance Planning for Building and Non-Building Structures Material: Column beam planning Reader: Dennis Lam. 2004. Structural Steel Work.	0%
14	Students are able to plan beam- column	Explain ASD and LRFD planning for beam- columns	Criteria: Full marks if the answers are complete, sequential, clear and correct Form of Assessment : Practice / Performance	Lectures, discussions, questions and answers, and 2 X 50 exercises	Material: Column beam planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings. Material: Earthquake load planning Reference: SNI 1726. 2012. Procedures for Earthquake Resistance Planning for Building and Non-Building Structures Material: Column beam planning Reader: Dennis Lam. 2004. Structural Steel Work.	10%

15	Students are able to plan steel construction buildings	Explain ASD and LRFD planning in steel construction buildings	Criteria: Full marks if the answers are complete, sequential, clear and correct Form of Assessment : Portfolio Assessment	Lectures, discussions, questions and answers, and 2 X 50 exercises	Material: Steel building construction planning Reference: SNI-1729. 2020. Specifications for Structural Steel Buildings. Material: Steel profile	20%
					selection Reader: Rudy Gunawan. 2000. Steel Construction Profile Table.	
					Steel building construction planning <b>Reader:</b> Agus Setiawan. 2008. Steel Structure Design using the LRFD Method. Jakarta:	
16	Completing the Final Semester		Form of Assessment :		Enangga	30%
	Examination (UAS)		Project Results Assessment / Product Assessment, Test			

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	5%
2.	Project Results Assessment / Product Assessment	15%
3.	Portfolio Assessment	20%
4.	Practice / Performance	25%
5.	Test	35%
		100%

## 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.
- 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** 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.
- 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.
- 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.