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

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Harbor	3930102035	Harbor	T=2	P=0	ECTS=3.18	5	July 16, 2024

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	**Case Studies**

Program Learning Outcomes (PLO)

PLO study program that is charged to the course

PLO-7	Able to carry out work and entrepreneurship in the field of land transportation engineering technology professionally.
PLO-11	Able to internalize ethics, norms and laws in carrying out work.

Program Objectives (PO)

PO - 1	Able to apply logical, critical, innovative, quality and measurable thinking in identifying, implementing and evaluating independently and coordinating groups to solve technical and non-technical problems and able to communicate verbally and in writing. Able to apply the principles of mechanics, mathematics and engineering concepts to the technical design process, drawing measurement results, and design in the field of land transportation engineering technology. Able to carry out design work, implementation, supervision, documentation of work in the field of land transportation engineering technology according to applicable standards by prioritizing principles occupational and environmental security and safety systems (SMK3L). Able to internalize ethics, norms and laws in carrying out work. Mastering the principles, applications, technical references, procedures and work standards (SOP) at the Port

PLO-PO Matrix

P.O	PLO-7	PLO-11
PO-1		

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
PO-1																

Short Course Description	Students learn about the definition of a port, port planning, wind, tides and waves, shipping lanes, breakwaters, piers, fenders and mooring equipment, port facilities on land, and aspects of shipping guidance equipment. The learning method that will be used is a direct learning method accompanied by discussion and questions and answers.

References

Main :

1. Triatmodjo. 2000. Pelabuhan, Beta Offset. Yogyakarta
2. Bambang Triatmodjo. 1999. Teknik Pantai. Beta Offset: Yogyakarta
3. Kramadibrata. 2002. Perencanaan Pelabuhan. Penerbit ITB, Bandung
4. Sorensen, R.M. 1978. Basic Coastal Engineering. John Wiley dan Sons, New York
5. Undang-undang Republik Indonesia Nomor 17. 2008. Pelayaran

Supporters:

Supporting lecturer	Dr. Anita Susanti, S.Pd., M.T. 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	Students can understand the meaning of ports and ships	Students can: - Explain the meaning of types of ports - Explain the meaning of types of ships	**Criteria:** Full marks are obtained if you do all the questions correctly **Form of Assessment** : Participatory Activities, Tests	Discussion lectures and questions and answers 2 X 50			0%
2	Students can understand port planning criteria	Students can: - Explain port requirements and equipment - Explain port location criteria - Explain the size and shape of the port - Explain breakwaters - Explain the location and width of the port mouth	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
3	Students understand the influence of tidal winds and waves	Students can: - Explain wind theory - Explain tidal theory - Explain wave theory	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
4	Students understand the influence of tidal winds and waves	Students can: - Explain wind theory - Explain tidal theory - Explain wave theory	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
5	Students understand the influence of tidal winds and waves	Students can: - Explain wind theory - Explain tidal theory - Explain wave theory	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
6	Students understand about shipping lane planning	Students can:- Explain channel selection- Explain channel depth- Explain channel width- Explain shipping channel layouts- Explain port pools- Skilled in calculating depth areas and drawing shipping channel layouts	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%

7	Students understand about shipping lane planning	Students can:- Explain channel selection- Explain channel depth- Explain channel width- Explain shipping channel layouts- Explain port pools- Skilled in calculating depth areas and drawing shipping channel layouts	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
8	Midterm exam	-	**Criteria:** Full marks are obtained if you do all the questions correctly	- 2 X 50			0%
9	Students understand wave breaker planning and are skilled in wave breaker calculations	Students can: - Explain the types of breakwaters - Skilled in calculating the stability of protective layered rock - Skilled in calculating the dimensions of breakwaters - Skilled in planning wave runup	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
10	Students understand wave breaker planning and are skilled in wave breaker calculations	Students can: - Explain the types of breakwaters - Skilled in calculating the stability of protective layered rock - Skilled in calculating the dimensions of breakwaters - Skilled in planning wave runup	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
11	Students understand about dock planning	Students can: - Explain the types of piers - Describe the wharf - Describe the pier or jetty - Explain the size of the wharf - Understand the forces acting on the wharf	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%

12	Students understand about dock planning	Students can: - Explain the types of piers - Describe the wharf - Describe the pier or jetty - Explain the size of the wharf - Understand the forces acting on the wharf	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
13	Students understand about fender planning and mooring tools	Students can: - Explain the types of fenders - Explain the position of the fender - Explain the mooring device - Understand the forces acting on the dolphin	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
14	Students understand about port facilities on land	Students can:- Explain piece goods terminals- Explain bulk goods terminals- Explain container terminals	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			0%
15	Students understand about shipping guidance tools	Students can: - Explain fixed construction guiding tools - Explain floating construction guiding tools	**Criteria:** Full marks are obtained if you do all the questions correctly	Discussion lectures and questions and answers 2 X 50			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.