



Universitas Negeri Surabaya Faculty of Engineering Civil Engineering Undergraduate Study Program

SEMESTER LEARNING PLAN CODE Courses **Credit Weight SEMESTER** Compilation Date **Course Family** MPK - Analysis, Construction Calculations, & Value Engineering April 28, 2023 2220106185 Compulsory Study T=0 P=0 ECTS=0 6 **Program Subjects AUTHORIZATION** SP Developer **Course Cluster Coordinator Study Program Coordinator** Dr. Ir. Bambang Sabariman, S.T., M.T., Yogie Risdianto, S.T., M.T.; Arie Wardhono, S.T., M.MT., M.T., Ph.D.; Mochamad Firmansyah Sofianto, S.T., M.Sc., M.T.; Muhammad Imaduddin, S.T., M.T.; Meity Wulandari, S.T., M.T. Yogie Risdianto, S.T., M.T. Yogie Risdianto, S.T., M.T. Learning **Project Based Learning** model PLO study program that is charged to the course Program Learning **Program Objectives (PO)** Outcomes (PLO) PO - 1 Students are able to build understanding to improve competency/skills (designers, implementers, supervisors) in the Students are able to carry out Work Practice Internships (MPK) to improve their competencies/skills using a Project Based Learning (PBL) pattern that applies the principles: communicative, collaborative, critical thinking, creative PO - 2 **PLO-PO Matrix** PΩ PO-1 PO-2 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 PO-2 This Job Training Internship provides students with experience by carrying out analysis, construction calculations and value engineering in accordance with the work at the internship site. Short Course Description References Main: 1. Beberapa SNI atau Code terkait dengan ketekniksipilan yang dibahas dalam MPK-Analisa, Perhitungan Konstruksi, & Rekavasa Nilai. Tim FT Unesa. 2014. Buku Panduan Praktik Industri / Praktik Kerja Lapangan (PKL) Fakultas Teknik Unesa. Surabaya: Universitas Negeri Surabaya. Tim Unesa. 2020. Pedoman dan Implementasi Kurikulum Merdeka Belajar Kampus Merdeka (MBKM). Surabaya: Universitas Negeri Surabaya. Supporters:

1.	Tim FE Unesa. 2018. Buku Panduan Praktik Kerja Lapangan (PKL) Fakultas Ekonomi Unesa. Surabaya: Universitas Negeri	ĺ
	Surabaya.	l

- PP No. 88 tahun 2019 Tentang Keselamatan dan Kesehatan Kerja (K3).
 Suma'mur PK. 2014. Higiene Perusahaan dan Kesehatan Kerja (HIPERKES). Edisi 2. Jakarta: CV. Sagung Seto.
 Wowo Sunaryo K, 2017. Ergonomi dan Keselamatan dan Kesehatan Kerja. Bandung: PT Remaja Rosdakarya.

5. ISO 45001 2018. Occupational Health and Safety Management Systems.

Supporting lecturer

Dr. Ir. Bambang Sabariman, S.T., M.T. Muhammad Imaduddin, S.T., M.T. Arie Wardhono, S.T., M.MT., M.T., Ph.D. Yogie Risdianto, S.T., M.T. Mochamad Firmansyah Sofianto, S.T., M.Sc., M.T.

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation Indicator Criteria & Form		Help Learning, Learning methods, Student Assignments, [Estimated time] Offline (offline Online (online)		Learning materials [References]	Assessment Weight (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Students are able to build understanding to improve competency/skills (designers, implementers, supervisors) in the world of civil engineering based on Project Based Learning (PBL) to produce MPK report products - Analysis, Construction Calculations, & Value Engineering.	Implementation of MPK activities at the internship site smoothly and according to implementation time	Criteria: If the MPK activity - Analysis, Construction Calculations, & Value Engineering and the stages are correct, score 100. Form of Assessment: Project Results Assessment/ Product Assessment, Portfolio Assessment	Completion of projects/activities Analysis, Construction Calculations, & Value Engineering through interviews, observations, and independent work 6X50 minutes	Assistance activities with DPL MPK-Analysis, Construction Calculations, & Value Engineering 2x50 minutes	Material: 1). Improving the self-competence of students participating in MPK-Analysis, Construction Calculations, & Value Engineering, 2). Complete MPK projects/activities-Analysis, Construction Calculations, & Value Engineering in report form. References: Several SNIs or Codes related to civil engineering discussed in MPK-Analysis, Construction Calculations, & Value Engineering discussed in MPK-Analysis, Construction Calculations, & Value Engineering.	5%
2	Students are able to build understanding to improve competency/skills (designers, implementers, supervisors) in the world of civil engineering based on Project Based Learning (PBL) to produce MPK report products - Analysis, Construction Calculations, & Value Engineering.	Implementation of MPK activities at the internship site smoothly and according to implementation time	Criteria: If the MPK activity - Analysis, Construction Calculations, & Value Engineering and the stages are correct, score 100. Form of Assessment: Project Results Assessment / Product Assessment, Portfolio Assessment	Completion of projects/activities Analysis, Construction Calculations, & Value Engineering through interviews, observations, and independent work 6X50 minutes	Assistance activities with DPL MPK-Analysis, Construction Calculations, & Value Engineering 2x50 minutes	Material: 1). Improving the self-competence of students participating in MPK-Analysis, Construction Calculations, & Value Engineering, 2). Complete MPK projects/activities-Analysis, Construction Calculations, & Value Engineering in report form. References: Several SNIs or Codes related to civil engineering discussed in MPK-Analysis, Construction Calculations, & Value Engineering.	5%

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16	MPK Final Assessment- Analysis, Construction Calculations, & Value Engineering	Implementation of MPK activities at the internship site smoothly and according to implementation time	Criteria: If the MPK activity - Analysis, Construction Calculations, & Value Engineering and the stages are correct, score 100. Form of Assessment: Project Results Assessment / Product Assessment	Completion of projects/activities Analysis, Construction Calculations, & Value Engineering through interviews, observations, and independent work 6X50 minutes	Assistance activities with DPL MPK-Analysis, Construction Calculations, & Value Engineering 2x50 minutes	Engineering. Material: Final Assessment MPK report-Analysis, Construction Calculations, & Value Engineering. References: Several SNIs or Codes related to civil engineering discussed in MPK-Analysis, Construction Calculations, & Value Engineering.	25%

Evaluation Percentage Recap: Project Based Learning

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No	Evaluation	Percentage					
1.	Project Results Assessment / Product Assessment	80%					
2.	Portfolio Assessment	20%					
		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.
- 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.
- 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.