



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

Document Code

SEMESTER LEARNING PLAN

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|-----------------------------------|-----------------------------------|-------------------------|-----|------|---|---|----|----|----|----|----|----|----|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| Courses | CODE | Course Family | Credit Weight | SEMESTER | Compilation Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Budget plan | 99993940103032 | | T=0 P=3 ECTS=4.77 | 4 | July 17, 2024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AUTHORIZATION | SP Developer | | Course Cluster Coordinator | Study Program Coordinator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Dr. Anita Susanti, S.Pd., 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 100px; height: 30px;">P.O</td> </tr> </table> | | | | | P.O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P.O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PO Matrix at the end of each learning stage (Sub-PO) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td rowspan="2" style="width: 50px; height: 30px;">P.O</td> <td colspan="16" style="text-align: center;">Week</td> </tr> <tr> <td style="width: 20px;">1</td> <td style="width: 20px;">2</td> <td style="width: 20px;">3</td> <td style="width: 20px;">4</td> <td style="width: 20px;">5</td> <td style="width: 20px;">6</td> <td style="width: 20px;">7</td> <td style="width: 20px;">8</td> <td style="width: 20px;">9</td> <td style="width: 20px;">10</td> <td style="width: 20px;">11</td> <td style="width: 20px;">12</td> <td style="width: 20px;">13</td> <td style="width: 20px;">14</td> <td style="width: 20px;">15</td> <td style="width: 20px;">16</td> </tr> </table> | | | | | P.O | Week | | | | | | | | | | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| P.O | Week | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | | | | | | | | | | | | | | | | | | |
| Short Course Description | <p>This course contains cost budget plans which include the definition, types of construction cost components, methods for calculating cost budget plans, components and methods for calculating physical construction cost budget plans and consultancy services. The calculation of the physical construction cost budget plan in this course is specifically for the transportation sector which consists of Division 1 – General; Division 2 – Drainage; Division 3 – Earthworks and Geosynthetics; Division 4 – Preventive Works; Division 5 – Granulated Pavement Works and Cement Concrete Pavements; Division 6 – Asphalt Works; Division 7 – Structure; Division 8 – Bridge Rehabilitation; Division 9 – Daily Work and Miscellaneous Work; Division 10 – Performance Maintenance Work. The physical construction cost budget plan will be calculated based on the type of work, volume calculations, and unit price analysis accompanied by calculations of material requirements. The consultancy service cost budget plan will be calculated for planning and supervision services which will include Remuneration/Personnel Costs (Billing Rate) and Direct Costs for Consultancy Services Business Entities. Learning is carried out online through Vlearning Unesa, Google Classroom, and Google Meet with a constructivist approach.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| References | Main : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <ol style="list-style-type: none"> 1. Nugraha Paulus, Natan Ishak, Sutjipto R. 1985. Manajemen Proyek Konstruksi 1 . Surabaya:Kartika Yudha. 2. Soeharto Iman. 2001. Manajemen Proyek dari Konseptual Sampai Operasional Jilid 2 .Jakarta: Erlangga. 3. Ibrahim Baktiar. 2001. Rencana dan Estimate Real of Cost . Jakarta: Bumi Aksara. 4. Kementerian Pekerjaan Umum dan Perumahan Rakyat Direktorat Jenderal Bina Marga. 2020. Surat Edaran No. 16.1/SE/Db/2020 tentang Spesifikasi Umum Bina Marga 2018 untuk Pekerjaan Konstruksi Jalan dan Jembatan (Revisi 2) . Jakarta: Direktorat Jenderal Bina Marga. 5. Badan Standarisasi Nasional. 2008. Tata Cara Perhitungan Harga Satuan Pekerjaan .Jakarta: Badan Standarisasi Nasional. 6. Pemerintah Kota Surabaya. 2019. Harga Satuan Pokok Kegiatan (HSPK) Kota Surabaya 2019 . Surabaya: Pemkot Surabaya. 7. Kementerian Pekerjaan Umum. 2016. Permen PU No. 28/PRT/M/2016 tentang Analisis Harga Satuan Pekerjaan Bidang Pekerjaan Umum . Jakarta: Kementerian Pekerjaan Umum. 8. Kementerian Pekerjaan Umum dan Perumahan Rakyat. 2018. Permen PUPR No. 22/PRT/M/2018 tentang Pedoman Pembangunan Bangunan Gedung Negara . Jakarta: Kementerian PUPR. 9. Ikatan Nasional Konsultan Indonesia. 2020. Pedoman Standar Minimal Remunerasi/Biaya Personil (Billing Rate) dan Biaya Langsung (Direct Cost) untuk Badan Usaha Jasa Konsultansi 2021 . Jakarta: Inkindo. 10. Journal of Cost Analysis and Parametrics. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Supporters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Supporting lecturer | | Dr. Ir. H. Soeparno, M.T. Ir. Mas Suryanto H.S., S.T., M.T. Purwo Mahardi, S.T., M.Sc. Abdiyah Amudi, 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 | Students understand the basic concept of budget planning | 1.Students can state the meaning of a cost budget plan 2.Students can mention and explain methods for calculating budget plans. | Criteria: Essay 100% | Online learning via video conference 3 X 50 | | | 0% |
| 2 | | | | | | | 0% |
| 3 | Understand how to calculate the budget plan for preparatory work, land and foundations and material requirements | Students can calculate the budget plan for the costs of preparatory work, land, foundations and material requirements | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, practice questions 4 X 50 | | | 0% |
| 4 | | | | | | | 0% |
| 5 | Understand how to calculate the budget plan for reinforced concrete work and how to calculate material requirements | Students can calculate the budget plan for reinforced concrete work and material requirements | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, practice questions 8 X 50 | | | 0% |
| 6 | | | | | | | 0% |
| 7 | | | | | | | 0% |
| 8 | | | | | | | 0% |
| 9 | Meeting 01 - 08 | Meeting 01 - 08 | Criteria: Essay 100% | Sub Summative Exam 2 X 50 | | | 0% |
| 10 | Understand how to calculate the budget plan for finishing work costs and material requirements | Students can calculate the budget plan for finishing work costs and material requirements | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, practice questions 6 X 50 | | | 0% |
| 11 | | | | | | | 0% |
| 12 | | | | | | | 0% |
| 13 | Understand how to calculate the budget plan for steel construction work and material requirements | Students can calculate the budget plan for steel construction work costs and material requirements | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, practice questions 2 X 50 | | | 0% |

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|----|---|--|--|--|--|--|----|
| 14 | Understand how to calculate the budget plan for electrical and sanitary installation work and material requirements | Students can calculate the budget plan for electrical and sanitary installation work costs and material requirements | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, practice questions 2 X 50 | | | 0% |
| 15 | Understand how to calculate the budget plan for the construction of state buildings | Students can calculate the budget plan for the construction of state buildings | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, questions and answers, practice questions 2 X 50 | | | 0% |
| 16 | Understand how to calculate budget plans for planning work costs, construction management and supervision | Students can calculate budget plans for planning work costs, construction management and supervision | Criteria: Able to complete assignments according to assignment sheet requests 100% | Lecture, practice questions 2 X 50 | | | 0% |

Evaluation Percentage Recap: Case Study

| 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.