

## Universitas Negeri Surabaya Vocational Faculty, D4 Informatics Management Study Program

Document Code

| UNES   | UNESA    |   |   |   |   |  |   |  |   |  |                          |
|--|----------|---|---|---|---|--|---|--|---|--|--------------------------|
| SEMESTER LEARNING PLAN   |          |   |   |   |   |  |   |  |   |  |                          |
| Courses  |          |   | CODE  |   | Course  | Family   | Credit Weight                                     |  | SEMESTER  | Compilation<br>Date                        |                          |
| Prac. Basic Programming  |          |   | 5740102096  | 8   |   |  | T=0   | P=0  | ECTS=0  | 1  | July 17, 2024            |
| AUTHORIZATION  |          |   | SP Develop  | SP Developer  |   | Course   | e Cluster Study Program Coordinator               |  | am  |  |                          |
|  |          |   |   |   |   |  |   |  |   | Dodik Arwin Dermawan,<br>S.ST., S.T., M.T. |                          |
| Learning<br>model  | ı        | Project Based   | Learning  | ing   |   |  |   |  |   |  |                          |
| Program  |          | PLO study program that is charged to the course   |   |   |   |  |   |  |   |  |                          |
| Learning<br>Outcom   |          | Program Objectives (PO)   |   |   |   |  |   |  |   |  |                          |
| (PLO)  |          | PLO-PO Matrix   |   |   |   |  |   |  |   |  |                          |
|  |          |   | P.O   |   |   |  |   |  |   |  |                          |
|  |          | PO Matrix at t  | the end of each lea   | arning stage (  | Sub-PO)   | )  |   |  |   |  |                          |
|  |          |   |   |   |   |  |   | 15 16  |   |  |                          |
| Short Course Course Description  This course teaches basic programming concepts, practical and technical knowledge and experience regarding algorithms and their application in the C programming language. The basic materials for making programs are programs basics, introduction to the C programming language, C control structures, completing conditions, loops, arrays, pointers, functions, abstract data types/structures, and file operations. |          |   |   |   |   |  | programming                                       |  |   |  |                          |
| References   |          | Main:   |   |   |   |  |   |  |   |  |                          |
|  |          | <ol> <li>Jeri R.</li> <li>Barton, example</li> <li>The Wards</li> <li>Kadir, Architecture</li> <li>Pranata</li> </ol> | riadi, Qoiriah, A. 2007<br>Hanly and Eliiot B. K<br>, John J., Nackman,<br>les . Addison Wesley<br>aite Groups. 1992. C<br>A dan Heriyanto. 200<br>a, A. 2005. Algoritma<br>, J., Rao, S., Jones, I | offman. 2002. F<br>Lee R. 1994. So<br>Longman, Inc.<br>Programming,<br>5. Algoritma Pe<br>dan Pemrograi | Problem Scientific and Second Internet | oolving and Pro<br>nd Engineering<br>Edition. SAMS<br>an Menggunak<br>gyakarta: Pene | ogram<br>g C : a<br>a divis<br>kan C .<br>erbit G | Design intropersion of the second sec | oduction w<br>f Prentice l<br>vakarta: Pe<br>Imu. | rith advanced t<br>Hall Computer           | echniques and            |
|  |          | Supporters:   |   |   |   |  |   |  |   |  |                          |
|  |          |   |   |   |   |  |   |  |   |  |                          |
| Dodik Arwin Dermawan, S.ST., S.T., M.T.  |          |   |   |   |   |  |   |  |   |  |                          |
| Week-  | eac      |   | Eva   | luation   |   | Learni<br>Student<br>[ Esti  |   | ethod<br>gnme  | nts,  | Learning<br>materials<br>[<br>References   | Assessment<br>Weight (%) |
|  | (Sub-PO) |   | Indicator   | Criteria & F  | orm   | Offline (<br>offline )   | Onl   | line (   | online )  | ]  |                          |
| (1)  |          | (2)   | (3)   | (4)   |   | (5)  |   | (6   | )   | (7)  | (8)                      |

| 1 | Students are able  | Explaining the  | Criteria:                                    | Approach:  |  | 0% |
|---|--|---|--|--|--|----|
|   | to apply<br>algorithms and<br>flowcharts in<br>problem solving                       | basic concepts of algorithms Identifying flowchart notations Applying algorithms and flowcharts to solve problems   | Assessment rubric (attached)                 | Scientific Model: Problem- based learning Method: Discussion, Presentation, Practicum 1 X 50   |  |    |
| 2 | Students are able to explain the writing structure of the C programming language     | Identify the types of data types Explain the rules for defining identifiers Identify the differences between variables and constants Identify the types of operators Explain the priority of arithmetic operators | Criteria:<br>Assessment rubric<br>(attached) | Approach:<br>Scientific<br>Model:<br>Cooperative<br>Method:<br>Discussion,<br>Presentation,<br>Practical<br>1 X 50                   |  | 0% |
| 3 | Students are able<br>to apply input and<br>output functions<br>in making<br>programs | 1.Identify the types of input and output functions 2.Implement input and output functions in the program  | Criteria:<br>Assessment rubric               | Approach: Scientific Model: Problem- based learning Method: Discussion, Presentation, 1 X 50   |  | 0% |
| 4 | Students are able to create programs with the branching concept                      | 1.Identify differences in conditions and actions 2.Explain single, compound and multilevel branching 3.Explaining branching using case selection 4.Implement the concept of branching into the program            | Criteria: Assessment rubric                  | Approach:<br>Scientific<br>Model:<br>Problem-<br>based<br>learning<br>Method:<br>Discussion,<br>Presentation<br>1 X 50               |  | 0% |
| 5 | Students are able to create programs with the branching concept                      | 1.Identify differences in conditions and actions 2.Explain single, compound and multilevel branching 3.Explaining branching using case selection 4.Implement the concept of branching into the program            | Criteria:<br>Assessment rubric               | Approach:<br>Scientific<br>Model:<br>Problem-<br>based<br>learning<br>Method:<br>Discussion,<br>Presentation,<br>Practicum<br>1 X 50 |  | 0% |

| 6  | Students are able to create programs with the concept of repetition | 1.Identify types of repetition     2.Explain the loop structure     3.Apply the concept of repetition to the program                    | Criteria:<br>Assessment rubric | Approach:<br>Scientific<br>Model:<br>Problem-<br>based<br>learning<br>Method:<br>Discussion,<br>Presentation,<br>Practicum<br>1 X 50 |  | 0% |
|----|---|---|--------------------------------|--|--|----|
| 7  | Students are able to create programs with the concept of repetition | 1.Identify types of repetition     2.Explain the loop structure     3.Apply the concept of repetition to the program                    | Criteria:<br>Assessment rubric | Approach:<br>Scientific<br>Model:<br>Problem-<br>based<br>learning<br>Method:<br>Discussion,<br>Presentation,<br>Practicum<br>1 X 50 |  | 0% |
| 8  | Midterm exam  |   |                                | 1 X 50   |  | 0% |
| 9  | Students are able to create programs using array concepts           | 1.Explain the definition of an array 2.Identify types of arrays 3.Explains how to declare each array 4. Implementing arrays in programs | Criteria:<br>Assessment rubric | Approach:<br>Scientific<br>Model:<br>Problem-<br>based<br>learning<br>Method:<br>Discussion,<br>Presentation,<br>Practicum<br>1 X 50 |  | 0% |
| 10 |   |   |                                |  |  | 0% |
| 11 |   |   |                                |  |  | 0% |
| 12 |   |   |                                |  |  | 0% |
| 13 |   |   |                                |  |  | 0% |
| 14 |   |   |                                |  |  | 0% |
| 15 |   |   |                                |  |  | 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.
- 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.
- $7. \quad \textbf{Forms of assessment:} \ \text{test and non-test}.$
- 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,
- 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.