



UNIVERSITAS MATARAM
(University of Mataram)
FAKULTAS TEKNIK
(Faculty of Engineering)
PROGRAM STUDI TEKNIK INFORMATIKA
(Department of Informatics Engineering)

MODULE HANDBOOK DESCRIPTION

Algorithm and Programming (D21KK113)

Module designation	Algorithm and Programming
Semester(s) in which the module is taught	<i>3 / fourth year</i>
Person responsible for the module	<i>Nadiyahsari Agitha, S.Kom., M.MT Heri Wijayanto, S.T., M.T., Ph.D</i>
Language	<i>Indonesian</i>
Relation to curriculum	<i>Compulsory</i>
Teaching methods	<i>Lectures, Discussions, Project</i>
Workload (incl. contact hours, self-study hours)	Contact Hours every week, each week of the 16 weeks/semester including Evaluation <ul style="list-style-type: none"> ● 4 x 50 minutes lecturer/week ● 4 x 60 minutes class exercise/week ● Self Study hours = 240 minutes/week Total workload 680 minutes/week
Credit points	<i>4 (~ 6,4 ECTS)</i>
Required and recommended prerequisites for joining the module	-

Module objectives/intended learning outcomes	<p>In this course, students are expected to be able to:</p> <ol style="list-style-type: none"> 1. Able to build algorithms to solve simple problems 2. Able to use various primitive data types in programming 3. Able to use flow control commands in programming 4. Able to create and use various functions in programming 5. Able to find errors and correct in programming
Content	<p>In this course, students are taught the ability to develop algorithms to solve simple problems and implement them in programming languages. This course discuss about Introduction to Algorithms and Programming, Flowcharts and Pseudocode, Data Types and Operators, Conditional, Looping, Function, Arrays, Structure and Pointers.</p>
Examination forms	<p><i>Assignments, Quiz, Post Test, Project (Oral Presentation)</i></p>
Study and examination requirements	<p><i>Assignments 10%, Quiz 25%, Project 65%</i></p>
Reading list	<ol style="list-style-type: none"> 1. Thomas H.. Cormen, Thomas H Cormen, Charles E Leiserson (2020). Introduction to Algorithms (3 ed.). The MIT Press: PEARSON. 2. G. G. Maulana, "Pembelajaran Dasar Algoritma Dan Pemrograman Menggunakan El-Goritma Berbasis Web," J. Tek. Mesin, vol. 6, no. 2, p. 8, 2017, doi: 10.22441/jtm.v6i2.1183. 3. R. Munir et al., "PEMROGRAMAN I," 2005. 4. T. H. Bagio, "Algoritma Dan Pemrograman," pp. 82–94, 2007. 5. Algorithms (4th Edition) 6. 2. Learn C++ Quickly: A Complete Beginner's Guide to Learning C++, Even If You're New to Programming (Crash Course With Hands-On Project)