MODULE HANDBOOK

Module name	Programming and Algorithm	
Module level, if applicable	1st year	
Code, if applicable	SST-105	
Semester(s) in which the module is taught	1st (first)	
Person responsible for the module	Muhammad Muhajir, S.Si., M.Sc.	
Lecturer	Rahmadi Yotenka, S.Si., M.Sc. Sekti Kartika Dini, S.Si., M.Si.	
Language	Bahasa Indonesia	
Relation to curriculum	Compulsory course in the first year (1st semester) Bachelor Degree	

Types of teaching and learning	Class size	Attendance time (hours per week per semester)	Form of active participation	Workload (hours per semester)	
Lecture	50-60	1.67	Problem solving	Face to face teaching	23.33
				Structured activities	32
				Independent study	32
				Exam	3.33

Total Workload	90.67 hours
Credit points	2 CUs / 3.4 ECTS
Requirements according to the examination regulations	Minimum attendance at lectures is 75%. Final score is evaluated based on assignment, mid-term exam, and final exam
Recommended prerequisites	-
Related course	Database (SST-207)
Module objectives/intended learning outcomes	After completing this course, the students have ability to: CO 1. explain the concept of the algorithm, presentation of the algorithm, and the basic structure of the algorithm CO 2. perform data management with the R program CO 3. explore the descriptive statistics with the R program
Content	Basic Concepts of Algorithms and Programming Object modes Types of objects vector, matrix, data frame, and list Function program for sequential structures Function program for branching structures with IF, IF..ELSE, and SWITCH Function program for loop structures with FOR, WHILE, and REPEAT Data management with RCLI and R Commander (data entry, data sorting, data selection) Statistical graphs with the program R Descriptive statistics with the R program

Study and examination requirements and forms of examination	The final mark will be weighted as follows:			
	No	Assessment components	Assessment Types	Weight (percentage)
	1	CO1	Assignment	30%
	2	CO2	Midterm Exam	30%
	3	CO3	Final Exam	40%

Media employed	Google Classroom, relevant websites, slides (power points), video, interactive media, white-board, laptop, LCD projector
Reading list	1. Pranata, A., 2005, Algoritma dan Pemrograman, Yogyakarta: Graha Ilmu.

| | 2. Rosadi, D., 2016, Analisis Statistika dengan R, Yogyakarta: Gadjah Mada University Press. |
| | 3. Zuur, A. F., Leno, E. N., & Meesters, E. H., 2009, A Beginner's Guide to R, New York: Springer. |

Mapping CO, PLO, and ASIIN's SSC

ASIIN		PLO											
		E	N	T	H	U	S	I	A	S	T	I	C
Knowledge	a												
	b									CO1			
	c												
	d												
Ability	e												
	f												
Competency	g												
	h												
	i												
	j									CO2			
	k									CO3			
	l												