MODULE HANDBOOK

Module Name	Algorithm and Data Structure			
Module level, if	Algorithm and Data Structure			
applicable	Undergraduate			
Code, if applicable	02143242012			
	02142242012			
Subtitle, if applicable				
Courses, if applicable	-			
Semester(s) in which	2			
the module is taught				
Person responsible for	Rosihan Ari Yuana, S.Si, M.Kom			
the module				
Lecturer	Rosihan Ari Yuana, S.Si, M.Kom			
Language	Indonesian and English			
Relation to curriculum	Undergraduate degree program, compulsory course in 2nd semester			
Type of teaching,	Undergraduate degree program, < 40 students			
contact hours				
Workload	Lectures: 2 x 50 = 100 minutes (1 hours 40 minutes) per week			
	Exercise and Assignments: 2 x 60 = 120 minutes (2 hours) per week			
	Private study: 2 x 60 = 120 minutes (2 hours) per week			
	, , , , , , , , , , , , , , , , , , , ,			
Credit points	2 SKS			
Requirements	A student must have attended at least 75% of the lectures to sit in the			
according to the	exams			
examination				
regulations				
Recommended				
Prerequisites				
Module	After completing this module, a student is expected to:			
objectives/intended	No Course Learning Outcome PLO			
learning outcomes	1 Students are able to mention and explain PLO-4			
	how to present algorithms			
	2 Students are able to analyze the efficiency of PLO-4			
	an algorithm and compare it with other			
	algorithms 3 Students are able to explain various sorting PLO-4			
	Students are able to explain various sorting PLO-4 algorithms and analyze their efficiency			
	4 Students are able to explain various data PLO-4			
	search algorithms and analyze their			
	efficiency			
	5 Students are able to explain and apply PLO-4			
	recursive algorithms to solve computational			
	problems			

Content	This course contains material on compiling correct algorithms in various			
	forms, discussing special form data structures (stack and queue) and			
	dynamic data structures in programming and their implementation, as			
	, , , , , , , , , , , , , , , , , , , ,			
	well as discussing several sorting algorithms, searching data.			
Study and	Forms of examination:			
examination	No	Course Learning Outcome	Examination	
requirements and	1	Students are able to mention and	Structured Task (5%)	
forms of Examination		explain how to present algorithms	Presentation (5%)	
	l <u>L</u>		Written Test (10%)	
	2	Students are able to analyze the	Structured Task (5%)	
		efficiency of an algorithm and	Presentation (5%)	
	l	compare it with other algorithms	Written Test (10%)	
	3	Students are able to explain	Structured Task (5%)	
		various sorting algorithms and	Presentation (5%)	
	l	analyze their efficiency	Written Test (10%)	
	4	Students are able to explain	Structured Task (5%)	
		various data search algorithms and	Presentation (5%)	
		analyze their efficiency	Written Test (10%)	
	5	Students are able to explain and	Structured Task (5%)	
		apply recursive algorithms to solve	Presentation (5%)	
	L	computational problems	Written Test (10%)	
	l			
Media employed	LCD, Whiteboard, Power Point Slide Presentation, Practical Guidance			
' '	Video, websites, etc.			
Reading list	1. Introduction to Design and Analysis Algorithm, Pearson Addison-Wesley., By Anany			
Treading list	Levitin, 2007			
	2. Bertualang dengan STRUKTUR DATA di Planet Pascal, By Sanjaya, Dwi, 2005			