Algorithm and Data Structure (W22B31)

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Module designation	Data Structure and Algorithm (W22B31)	
Semester(s) in which the module is taught	3 / second year	
Person responsible for the module	Dr. Eng. Budi Irmawati, S.Kom., M.T.	
Language	Indonesian	
Relation to curriculum	Compulsory	
Teaching methods	group discussions and presentation, coding, case-based problems, lectures	
Workload (incl. contact hours, self-study hours)	Contact Hours every week, each week of the 16 weeks/semester including Evaluation	
	 3 x 50 minutes lecturer/week 120 minutes class exercise/week Self Study hours = 180 minutes/week 	
	• Midterm Exam = 90 minutes	
	 Final Exam = 90 minutes Total workload 108 hours/semester 	
Credit points	3 (~ 4,32 ECTS)	
Required and recommended prerequisites for joining the module	Algorithm and Programming	
Module objectives/intended learning outcomes	1. Being able to implement Abstract Data Type and inherit it to various data types.	PLO6: 10%
	2. Being able to implement various Linked List Data Types to solve various simple computational problems	PLO7: 35%
	3. Being able to implement Stack and Queue to solve various simple computational problems.	PLO7: 30%
	4. Being able to sort and search data efficiently with basic complexity calculation.	PLO8: 10%
	5. Being able to implement Tree and Graph data structures to solve various simple computational problems	PLO8: 15%

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