MODULE HANDBOOK DESCRIPTION

Module designation	*Discrete Mathematics*	
Code	*FBD3101*	
Semester(s) in which the module is taught	*5 / third year*	
Person responsible for the module	*A.Sjamsjiar Rachman, ST., MT.*	
Language	*Indonesian*	
Relation to curriculum	*Compulsory for Computer System*	
Teaching methods	*lectures, small group discussion, case base method.*	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester: • Lectures: 3 x 50 minutes • Exercises and Assignments: 3 x 60 minutes • Self-study: 3 x 60 minutes. Total study hours = 8 hours 30 minutes/week.	
Credit points	*3 SKS (~ 4.8 ECTS)*	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	*1. Students are able to understand discrete objects and analyze an argument in discrete structure problems.*	*PLO3*
	2. Students are able to construct and design an argument in discrete structure problems, and can apply them to solve discrete structured problems.	*PLO4*
	3. Students are able to experiment and explain the connection of basic concepts of discrete mathematics with other branches of science.	*PLO5*
Content	*This course discusses the problem of sets, relations and functions, introducing graphs, recurring relations, and introducing combinatorics. As a support for the data structure courses, graph theory, and combinatoric.*	

Examination forms	- *Written case study* - *Midterm and final test*
Study and examination requirements	*The final grade in the module is composed of:* *a. Case I assessment: 15%* *b. Case II assessment: 15%* *c. Midterm assessment: 35%* *d. Final assessment: 35%* *Students must have a final grade of 65% or higher to pass*
Reading list	*1. Kenneth H. Rosen, 2011, "Discrete Mathematics and Its Applications" 7th ed., McGraw-Hill.* *2. Grimaldi, R. P., 2006, "Discrete and Combinatorial Mathematics" 5th ed., Addison-Wesley Publ. Co.* *3. Liu, C. L. and DP Mohepatra, 2008, "Elements of DiscreteMathematics", 3rd ed., McGraw-Hill Inc.*