



MODULE HANDBOOK DESCRIPTION

Module designation	<i>Discrete Mathematics</i>	
Code	<i>FBD3101</i>	
Semester(s) in which the module is taught	<i>5 / third year</i>	
Person responsible for the module	<i>A.Sjamsjiar Rachman, ST., MT.</i>	
Language	<i>Indonesian</i>	
Relation to curriculum	<i>Compulsory for Computer System</i>	
Teaching methods	<i>lectures, small group discussion, case base method.</i>	
Workload (incl. contact hours, self-study hours)	Contact minutes every week, each week of the 16 weeks/semester: <ul style="list-style-type: none"> • 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	<i>3 SKS (~ 4.8 ECTS)</i>	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	<i>1. Students are able to understand discrete objects and analyze an argument in discrete structure problems.</i>	<i>PLO3</i>
	<i>2. Students are able to construct and design an argument in discrete structure problems, and can apply them to solve discrete structured problems.</i>	<i>PLO4</i>
	<i>3. Students are able to experiment and explain the connection of basic concepts of discrete mathematics with other branches of science.</i>	<i>PLO5</i>
Content	<i>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.</i>	

Examination forms	<ul style="list-style-type: none"> - <i>Written case study</i> - <i>Midterm and final test</i>
Study and examination requirements	<p><i>The final grade in the module is composed of:</i></p> <ul style="list-style-type: none"> <i>a. Case I assessment: 15%</i> <i>b. Case II assessment: 15%</i> <i>c. Midterm assessment: 35%</i> <i>d. Final assessment: 35%</i> <p><i>Students must have a final grade of 65% or higher to pass</i></p>
Reading list	<ol style="list-style-type: none"> <i>1. Kenneth H. Rosen, 2011, "Discrete Mathematics and Its Applications" 7th ed., McGraw-Hill.</i> <i>2. Grimaldi, R. P., 2006, "Discrete and Combinatorial Mathematics" 5th ed., Addison-Wesley Publ. Co.</i> <i>3. Liu, C. L. and DP Mohepatra, 2008, "Elements of DiscreteMathematics", 3rd ed., McGraw-Hill Inc.</i>