FAKULTI TEKNOLOGI DAN KEJURUTERAAN

PROGRAM	**Diploma in Computer Network**
COURSE NAME	**Discrete Mathematics**
COURSE CODE	**DNM 2013**
CREDIT HOURS	**3**
SYNOPSIS	Discrete mathematics is an important subject in computer-related courses. This subject will stimulate an idea among students on data representation method such as numerical method, data relationship and modeling. Students will also polish on their ability to think logically, objectively and focused
COURSE STRUCTURE	
CHAPTER	**TOPICS**
1	**Theory Set** 1.1 Introduction to Set 1.2 Subset 1.3 Set operations 1.4 Set Theory Law 1.5 Counter and Venn Diagram
2	**The Fundamental of Counting Principles** 2.1 The Rule of Sum and product 2.2 Permutation 2.3 Combination 2.4 Binomial Theorem
3	**Relations & Functions** 3.1 Product of Cartesian and Relations 3.2 Properties of Relations 3.3 Equivalence 3.4 Relation and Partition 3.5 Function: Plan and one to one 3.6 Into Function or Subjective

4	**Digraph or Directed Graph** 4.1 Relation and Diagraph 4.2 Function as a Diagraph 4.3 Diagraph Path 4.4 Tree in Diagraph
5	**Basic Logic** 5.1 Basic Connector 5.2 Truth Table 5.3 Logical equivalence 5.4 Logic implication: Rule of Inference
6	**Basic Numbering Theory** 6.1 Well Ordering Principle: Mathematical Induction 6.2 Definition of Recursion
References:	1. Richard Kohar, 2016. Basic Discrete Mathematics : Logic, Set Theory & Probability. Kindle Edition. 2. Oscar Levin, 2016. Discrete Mathematics: An Open Introduction. 2nd Edition.