UNIVERSITAS MATARAM

(University of Mataram)

FAKULTAS TEKNIK

(Faculty of Engineering)

PROGRAM STUDI TEKNIK INFORMATIKA

(Department of Informatics Engineering)

MODULE HANDBOOK DESCRIPTION

Operational Research (K22B55)

Module designation	Operational Research
Semester(s) in which the module is taught	*5 / fifth year*
Person responsible for the module	*Moh. Ali Albar, S.T., M.Eng.*
Language	*Indonesian*
Relation to curriculum	*Compulsory*
Teaching methods	*Lectures, Discussions, Project*
Workload (incl. contact hours, self-study hours)	Contact Hours every week, each week of the 16 weeks/semester including Evaluation • 2 x 50 minutes lecturer/week • 2 x 60 minutes class exercise/week • Self Study hours = 120 minutes/week Total workload 340 minutes/week
Credit points	*2 (~ 3,2 ECTS)*
Required and recommended prerequisites for joining the module	Discrete Mathematic and Probability and Statistic.

Module objectives/intended learning outcomes	1. Mastering, analyzing and applying the principles of the Linear Program method 2. Mastering, analyzing and applying the principles of distribution methods 3. Mastering, analyzing and applying the principles of the network model method
Content	This course provides knowledge about optimization models and their formulation as well as skills in solving engineering and industrial management problems that can be modeled quantitatively (mathematically), both deterministically and probabilistically.
Examination forms	*Assignments, Quiz, Project*
Study and examination requirements	*Assignments 35%,* *Quiz 65%*
Reading list	1. Halidi Lyeme, Mohamed Seleman. (2012). Introduction to Operations Research: Theory and Applications. LAP LAMBERT Academic Publishing. Deutschland Germany. 2. Frederick S. Hillier, Gerald J. Lieberman. (2014). Solutions Manual for Introduction to Operations Research 9th Edition. McGraw Hill International Edition. 3. Jong Jek Siang. (2014). Riset Operasi dalam Pendekatan Algoritmis. Penerbit Andi Yogyakarta.