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MODULE HANDBOOK

Module Name	Manajemen Risiko (Risk Management)
Module level, if applicable	Master Program
Code, if applicable	MMS-5511
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	2/first year
Person responsible for the module	Chair of Statistics Laboratory
Lecturer(s)	Prof., Dr.rer.nat., Dedi Rosadi, S.Si., M.Sc.
Language	Bahasa Indonesia
Relation to curriculum	Elective for Master Degree in Mathematics
Teaching methods	3 hours lecture
Workload (incl. contact hours, self-study hours)	3 hours lectures, 6 hours individual study,14 weeks per semester, and total 126 hours per semester
Credit points	3
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	CO1 Understand the basic concept of risk management CO2 Understand basic concept from finance for risk modeling CO3 Understand how to model market risk, credit risk and other types of risk and use it for risk management of several financial instruments

Content	Introduction to Risk and Risk Management, basic concept from finance: returns, investment and financial market, VaRParametric: VarRNormal, VaR Non normal , Var Non Parametric, Backtesting and Stress Testing, Application VaR for risk management, Introduction to Credit Risk, Application of Risk management for Indonesian Market, Advanced Topics: Option Pricing VaR, Copula Application for Risk Management, Machine Learning for Risk Management, etc.
Examination forms	Written exams and final project
Study and examination requirements	The weight of assignments will be as follows: 1. Quiz, home work, presentation 20% 2. Mid semester exam 40% 3. Final exam 40%
Media employed	online platform, Learning management system, LCD projectors, whiteboards.
Reading list	1. Dowd, K., 2005, An introduction to market risk measurement, 2nd Eds, Wiley 2. Rosadi, D., 2022, Manajemen Resiko Kuantitatif, GAMA Press 3. Karasan A., 2022, Machine Learning for Financial Risk Management with Python, Algorithms for Modeling Risk, O'Reilly Media

CO-PLO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
CO 1	x						
CO 2		x					
CO 3			x				

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