



**MODULE HANDBOOK**  
**CAPITA SELECTA OF STOCHASTIC, OPTIMIZATION,**  
**AND RISKS**

**BACHELOR DEGREE PROGRAM**  
**DEPARTMENT OF MATHEMATICS**  
**FACULTY OF SCIENCE AND DATA ANALYTICS**  
**INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

**MODULE HANDBOOK**  
**CAPITA SELECTA OF STOCHASTIC,  
OPTIMIZATION, AND RISKS**

Module name	<b>Capita Selecta of Stochastic, Optimization, and Risks</b>	
Module level	Undergraduate	
Code	KM184820	
Course (if applicable)	Capita Selecta of Stochastic, Optimization, and Risks	
Semester	Spring (Genap)	
Person responsible for the module	Valeriana L, S.Si, M.T	
Lecturer	Valeriana L, S.Si, M.T	
Language	Bahasa Indonesia and English	
Relation to curriculum	Undergraduate degree program, <b>elective</b> , 8 <sup>th</sup> semester.	
Type of teaching, contact hours	Lectures, <60 students <b>Tuesdays, 11.00-12.50 (GMT+7)</b>	
Workload	1. Lectures : 2 x 50 = 100 minutes per week. 2. Exercises and Assignments : 2 x 60 = 120 minutes (2 hours) per week. 3. Private learning : 2 x 60 = 120 minutes (2 hours) per week.	
Credit points	2 credit points (sks)	
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.	
Mandatory prerequisites	-	
Learning outcomes and their corresponding ILOs	Course Learning Outcome (CLO) after completing this module, Students are able to study new topics about Stochastics, Optimization and Risk, both theoretically and in application. Students are able to understand and deliver material from related papers / papers in the form of presentations.	CLO-01  CLO-02
Content	In this lecture, new topics on Stochastics, Optimization and Risk were examined. Study papers / papers on this topic are presented in the form of discussions and presentations. It is expected that the topics of the final project will emerge.	

Study and examination requirements and forms of examination	<ul style="list-style-type: none"> <li>• In-class exercises</li> <li>• Assignment 1, 2, 3</li> <li>• Mid-term examination</li> <li>• Final examination</li> </ul>
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.
Reading list	<p>Main :</p> <ol style="list-style-type: none"> <li>1. Textbook related to the topic of Stochastics, Optimization and Risk</li> <li>2. papers for related topic.</li> </ol> <p>Supporting :</p>