MODULE HANDBOOK
STATISTICAL MATHEMATICS

BACHELOR DEGREE PROGRAM
DEPARTMENT OF MATHEMATICS
FACULTY OF SCIENCE AND DATA ANALYTICS

INSTITUT TEKNOLOGI SEPULUH NOPEMBER

MODULE HANDBOOK
STATISTICAL MATHEMATICS

Module name	**Statistical Mathematics**
Module level	Bachelor
Code	KM184505
Course (if applicable)	Statistical Mathematics
Semester	Fall (Gasal)
Person responsible for the module	Dra. Laksmi Prita W, M.Si
Lecturer	Dra. Laksmi Prita W, M.Si
Language	Bahasa Indonesia and English
Relation to curriculum	Bachelor degree program, **mandatory**, 5rd semester.
Type of teaching, contact hours	Lectures, <60 students
Workload	1. Lectures : 3 x 50 = 150 minutes per week. 2. Exercises and Assignments : 3 x 60 = 180 minutes (3 hours) per week. 3. Private learning : 3 x 60 = 180 minutes (3 hours) per week.
Credit points	3 credit points (sks)
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to sit in the exams.
Mandatory prerequisites	Probability Theory Statistical Methods
Learning outcomes and their corresponding PLOs	Course Learning Outcome (CLO) after completing this module, CLO-1 : Students are able to define Central Limit Theorem, asymptotic Normal distribution, statisti convergence and convergence of opportunity / distribution. CLO-2 : Students are able to explain Sampling Statistics & Distribution CLO-3 : Students are able to explain Point Estimation and Interval Estimation. CLO-4 : Students are able to explain Sufficiency & Completeness CLO-5 : Students are able to explain Hypothesis Test.

Content	This course is statistical inference and is the concept of decision making in a population by sampling, which will be subject to limiting distribution, sampling distribution, cytitic estimation, evaluation of point estimates and interval estimates.
Study and examination requirements and forms of examination	• Assignment 1 & 2 • Mid-term examination • Final examination
Media employed	LCD, whiteboard, websites (myITS Classroom), zoom.
Reading lists	Main : 1. Bain, L.J., Engelhardt, M. , " Introduction to Probability and Mathematical statistics", Duxbury Press, 2nd., 1992. Supporting : 1. Hogg, R.V., Tanis, E.A, "Probability and Statistical Inference", Pearson Education, 2006. 2. Casella, G., Berger, R.L., " Statistical Inference", Brooks/Cole Pub.Co., 1990.