

Mathematical Statistics

Module designation	Course Module: Mathematical Statistics
Semester(s) in which the module is taught	I (odd semester)
Person responsible for the module	Prof. Dr. Suyono, M.Si
Language	Bahasa Indonesia
Relation to curriculum	Compulsory
Teaching methods	Lecture
Workload (incl. contact hours, self-study hours)	For this course, students are required to meet a minimum of 232 hours in one semester, which consist of: 40 hours for lecture, 96 hours for structured assignments, 96 hours for private study.
Credit points	7.8 ECTS / 3 Credit Point
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	Students are able to: 1. Understand probability and its properties. 2. Understand random variables and their properties. 3. Understand parameter estimations of random variables and their properties. 4. Understand test of hypothesis and their properties.
Content	Students will learn about: Probability, random variables and their distributions, special probability distributions, joint distributions, functions of random variables, limiting distributions, statistics, and sampling distributions, point estimation, interval estimation, and test of hypotheses.
Examination forms	Assessment of the learning process according to the following components: assignments 20%; mid test 40%, and final test 40%.
Study and examination requirements	Study and examination requirements: 1. Students must attend 15 minutes before the class starts. 2. Students must switch off all electronic devices during examinations. 3. Students must inform the lecturer if they cannot attend the class due to sickness, etc. 4. Students must submit all class assignments before the deadline. 5. Students must attend the exam to get a final grade. Form of examination: Written exam: Essay
Reading list	L. J. Bain and M. Engelhard, Introduction to Probability and Mathematical Statistics, Duxbury Press, New York, 1993. R. V. Hoog and A. T. Craig, Introduction to Mathematical Statistics, Prentice Hall, Singapore, 1995. L. S. Milton and J. C. Arnold, Introduction to Probability and Statistics, 4 th Edition, Mc. Graw Hill, New York, 2004. R. E. Walpole & H. M. Raymond, <i>Terjemahan RK Sembiring. Ilmu Peluang dan Statistika untuk Insinyur Ilmuawan</i> , Edisi ke-4, Bandung: ITB, 1995.