



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Mathematics Department

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Undergraduate Program in Statistics

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MODULE HANDBOOK

Module name	Pengantar Teori dan Ukuran Probabilitas (Introduction to Measure and Probability Theory)
Module level, if applicable	Bachelor
Code, if applicable	MMS-3404
Subtitle, if applicable	
Courses, if applicable	
Semester(s) in which the module is taught	5/ third year
Person responsible for the module	Prof. Subanar, Ph.D.
Lecture(s)	Prof. Subanar, Ph.D.
Language	Bahasa Indonesia
Classification within the Curriculum	compulsory/ elective
Teaching format /class hours per week during the semester:	3 hours lecture
Workload	3 hours lectures and 6 hours individual study per week, 14 weeks per semester, total 126 hours a semester
Credit points	3
Requirements	MMM-1102 Calculus II
Module objectives/intended learning outcomes	After completing this course the students have ability to : CO 1. Have a good knowledge in fundamental concept in probability concept. CO 2. Relate probability concepts and measure theory. CO 3. Have a good understanding in the concept of random variable and its distribution. CO4 . Understand the basic asymptotic concept and its relation among them.
Content	Algebra of sets, fundamental concept of probability theory, measure and probability, random variable and its distributions, convergence concepts, relation between convergence, central limit theorem and its application.
Study and examination requirements and forms of examination	The weight of assignments will be as follows: i. Quiz, homework 15% ii. Mid semester exam 40% iii. Final exam 45% Grade scale: A 85 ≤ score A/B 75 ≤ score < 85 B 60 ≤ score < 75 B/C 50 ≤ score < 60 C 40 ≤ score < 50 D 20 ≤ score < 40 E score < 20
Media employed	Slides and LCD projectors, whiteboards
Reading List	1.Hogg,R.V., Kean,J.W,Craig A.T.,2005, An Introduction To Mathematical Statistics,Prentice Hall. 2.Rosenthal,J.S.,2006, A First Look at Rigorous Probability Theory, World Scientific.

Program Learning Outcomes (PLO)

PLO-1 have strong basic statistics and mathematics in problem solving analysis.

PLO-2 have statistical thinking and able to develop.

PLO-3 have a good ability to utilize technology and statistical software in teaching and research.

PLO-4 have experience in working on real cases in the field of statistics.

PLO-5 have a good ability to communicate statistics in writing and oral.

PLO-6 have ability to further studies, and or lifelong learning.

PLO-7 have professional ethics and soft skill.

CO and PLO mapping

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