



UNIVERSITAS GADJAH MADA

Fakultas Matematika dan Ilmu Pengetahuan Alam

Sekip Utara Bulaksumur Yogyakarta 55281 Telp: +62 274 552243 Fax: +62 274 555131 Email: maths3@ugm.ac.id Website: <http://s3math.fmipa.ugm.ac.id/>

Program Pascasarjana S3 Matematika

Telp : +62 274 552243

Email : maths3@ugm.ac.id; kaprodi-s3-matematika.mipa@ugm.ac.id

Website : <http://s3math.fmipa.ugm.ac.id/>

MODULE HANDBOOK

Module name	Advanced Mathematical Statistics
Module level, if applicable	Doctoral
Code, if applicable	MMM 7401
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	I
Person responsible for the module	Prof. Dr. Sri Haryatmi Kartiko, M.Sc
Lecture(s)	Prof. Dr. Sri Haryatmi Kartiko, M.Sc
Language	Bahasa Indonesia
Classification within the Curriculum	Compulsory course / Elective Studies
Teaching format /class hours per week during the semester:	3 hours lecture
Workload	3 hours lectures + 6 hours individual study, 14 weeks per semester, and total 126 hours per semester
Credit Points	3
Requirements	-
Module objectives/intended learning outcomes	CO1: Students are mastering in measure theory concepts and its relation with probability. CO2: Students are mastering in the random variable concept and its distributions. CO3: Students can relate between the integration theory and expectation. CO4 : Students master various concepts of convergence.
Content	<ul style="list-style-type: none"> - Sigma Fields - Measure Theory - Probability - Random Variable and Its Distribution - Theory of Integral and Its Relation to Expectation - Various Types Convergence - Beberapa Versi Teorema Limit Pusat
Study and examination requirements and forms of examination	<p>Learning is conducted by using Student Center Learning (SCL). Because of SCL, the majority of learned material is deepened by the students while lecturer roles as a mediator and director of learning.</p> <p>Also, the students have to be active both in presentation and discussion during the lecture. Then, the examination will be flexible based on the result of the presentation, discussion during the lecture, and the final report.</p> <p>Grade scale: A: $80 \leq \text{score}$ A/B: $70 \leq \text{score} < 80$ B: $60 \leq \text{score} < 70$ B/C: $50 \leq \text{score} < 60$ C: $40 \leq \text{score} < 50$ D: $20 \leq \text{score} < 40$</p>

	E: score < 20
Utilized Media	Books in the reference lists, journals, and supporting articles, LCD, laptop, and whiteboard.
References	<ol style="list-style-type: none"> 1. Jun Shao. (2003), <i>Mathematical Statistics</i>, Second Edition, Springer, United States of America. 2. Robert B Ash. (2000), <i>Probability and Measure Theory</i>, A Hardcourt Science and Technology Company, United States of America. 3. Patrick Billingsley. (1995), <i>Probability and Measure</i>, Third Edition, A Wiley Interscience Publication, United States of America. 4. Robert J Serfling. (1980), <i>Approximation Theorem of Mathematical Statistics</i>, A Wiley Interscience Publication, United States of America.

CO and PLO Mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6
CO 1	x	x				
CO 2			x			
CO 3					x	
CO4					x	x