Graduate Program in Mathematics

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MODULE HANDBOOK

Module Name	Analisis Data Longitudinal (*Longitudinal Data Analysis*)
Module level, if applicable	Master Program
Code, if applicable	MMM-5412
Subtitle, if applicable	-
Courses, if applicable	Analisis Data Longitudinal (*Longitudinal Data Analysis*)
Semester(s) in which the module is taught	second or fourth semester
Person responsible for the module	Chair of Statistics Laboratory
Lecturer(s)	Drs. Danardono, MPH, Ph.D.
Language	Bahasa Indonesia
Relation to curriculum	Elective *for* Master Degree in Mathematics
Teaching methods	3 hours lecture
Workload (incl. contact hours, self-study hours)	3 hours lectures, 6 hours individual study, 14 weeks per semester, and a total of 126 hours a semester
Credit points	3
Required and recommended prerequisites for joining the module	Competencies in undergraduate Calculus and mathematical statistics

	On successful completion of this course, students should be able to:
Module objectives/intended learning outcomes	CO1 explain the concept of longitudinal data, design of longitudinal studies, exploratory analysis, and linear models; CO2 analyze longitudinal data using general linear models; generalized linear models, generalized estimating equation models, random effect models, transitional models, and interpret the results; CO3 appraise advanced models/methods for longitudinal data analysis
Content	Longitudinal data and design, exploratory data for longitudinal data, linear models; general linear models; generalized linear models; generalized estimating equation models; random effect models; transitional models.
Examination forms	*essay, project report and presentations*
Study and examination requirements	The weight of assignments will be as follows: 1. Final examination 30% 2. Mid examination 30% 3. Project 25% 4. Quiz, homework, presentation 15%
Media employed	*LCD projectors, whiteboards, online platforms, LMS (learning management system) - eLOK*
Reading list	1. Danardono, 2015, Analisis Data Longitudinal. UGM Press 2. Diggle, P. J., Heagerty, P., Liang, K-Y., Zeger, S. L. (2002) Analysis of Longitudinal Data (Second Edition). Oxford University Press.

CO-PLO Mapping

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

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