



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	Pemodelan Spatio Temporal (Spatio-Temporal Modelling)
Module level, if applicable	Bachelor
Code, if applicable	MMS-4494
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	8/fourth year
Person responsible for the module	-
Lecture(s)	Dr. Herni Utami, M.Si.
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 a semester
Credit points	
Requirements	MMS-3429 Introduction to Time Series
Module objectives/intended learning outcomes	After completing this course the students have ability to : CO 1. Interpret and use the basic of spatio temporal modelling CO 2. Apply the model spatio temporal for real cases
Content	Introduction and autoregression, Visualizing data, state-space models, Geostatistics, Frequency domain methods, Point processes, Spatio-temporal Processes
Study and xamination requirements and forms of examination	The weight of assignments will be as follows: i. Quiz, homework 10% ii. Group discussion 15% iii. Mid semester exam 35% iv. Final exam 40% 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	N. Cressie. Statistics for Spatial Data. Revised edition. Wiley 1993. R. S. Bivand et al. Applied Spatial Data Analysis with R. 2nd edition. Springer 2013. S. Banerjee, B. P. Carlin, and A. E. Gelfand. Hierarchical Modeling and Analysis for Spatial Data. Chapman and Hall 2003.

CO and PLO mapping

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