



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 Analisis Data Panel (Introduction to Panel Data Analysis)
Module level, if applicable	Bachelor
Code, if applicable	MMS-4416
Subtitle, if applicable	
Courses, if applicable	
Semester(s) in which the module is taught	7/forth year
Person responsible for the module	Prof. Dr. rernat. Dedi Rosadi, S.Si., M.Sc.
Lecture(s)	Prof. Dr. rernat. Dedi Rosadi, S.Si., M.Sc.
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	MMS-2420 Introduction to Mathematical Statistics I
Module objectives/intended learning outcomes	After completing this course the students will be able to: CO1 Understand the theoretical aspect of modeling panel data using the linear panel models CO2 Use econometric software for panel data analysis and interpret the output from econometric software to do an appropriate statistical analysis
Content	Review of concepts from probability theory, OLS and GLS Estimation methods for linear models, Linear Panel Models: Fixed-Effect and Random Effects one and two ways, Estimation methods, Poolability test, Hausman Specification Test, Breush Pagan Test, Selection and Validating Models, Overview for advanced models, Computation and Application
Study and xamination 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 65 ≤ score < 75 B/C 55 ≤ score < 65 C 45 ≤ score < 55 D 20 ≤ score < 45 E score < 20
Media employed	Slides and LCD projectors, whiteboard

Reading List	<ol style="list-style-type: none"> 1. Badi H. Baltagi, Econometric analysis of Panel Data, 2001, Wiley 2. Greene, W.H., Econometric Analysis, 4th ed, 2000, Prentice Hall 3. Hsiao, C. H., Analysis of Panel Data, 2nd ed., 2005, Cambridge University Press 4. Wooldridge, J. M., Econometrics Analysis of Cross Section and Panel data, 2001, MIT Press 5. Maddala, GS., 2005. Limited Dependence Variable Models Using Panel Data. The Journal of Human Resources. P 275-306. 6. Schout, James R., 1997. Matrix Analysis for Statistics. Jhon Willy & Sons Inc, Canada
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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	x