UNIVERSITAS GADJAH MADA
Faculty of Mathematics and Natural Sciences
Mathematics Department
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/

Doctoral Programme in Mathematics
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	Model Linier (Linear Model)
Module level, if applicable	S3 (Doctoral)
Code, if applicable	MMM 5406
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	2nd Semester
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:	The teaching methods used are lectures, presentations and discussions. The lecture is given at the beginning of the lecture opening with an allocation of 30 minutes, the remaining 120 minutes is used for presentations and discussions. During one semester the number of meetings was 14 times, 1 midterm and 1 UAS.
Workload	3 hours lectures, 6 hours individual study, 14 weeks per semester, and total 126 hours a semester
Credit points	3
Requirements	Mathematical Statistics
Module objectives/intended learning outcomes	By the end of this course : CO1: Students are able to understand the basics of the full rank model, model not full rank, two elementary model and generalized linear model. CO2: Students are able to estimate the parameters of the full rank model, model not full rank, two elementary model and generalized linear model. CO3: Students are able to test parameters in the full rank model, model not full rank, two elementary model and generalized linear model. CO4: Students are able to make further inferences for the full rank model, model not full rank, two elementary model and generalized linear model.
Content	- Generalized Inverse Matrices - Distributions and quadratic forms - Regression or the full rank model - Models not of full rank - Two elememtary models - The 2-way crossed classification - Methods of estimating varian components from unbalanced data - Generalized linear model
Study and examination requirements and forms of examination	Learning is carried out using the SCL (Student Center Learning) method where in most material, lecturers are only as directors and mediators of students in deepening material related to lectures. Students are required to be active in the presentation and discussion process with the lecturer. Open examinations are based

	on the results of presentations and student assignments reports. Assessments are carried out based on the following assessment categories: Grade scale: A $80 \leq$ score A/B $70 \leq$ score < 80 B $60 \leq$ score < 70 B/C $50 \leq$ score < 60 C $40 \leq$ score < 50 D $20 \leq$ score < 40 E score < 20
Media employed	Books in reference lists, supporting scientific journals and articles, LCD, laptop, and whiteboards
Reading List	1. McCullagh, P. Dan Nelder, J.A. (1989) Generalized Linear Models 2nd Edition. Chapman and Hall, London 2. Rencher, A.C. dan Schaalje, G.B. (2008) Linear Models in Statistics 2nd Edition. John Wiley and Sons Inc., Hoboken, New Jersey. 3. Searle, S. R. (1997) Linear Models. John Wiley and Sons Inc., Canada. 4. Searle, S. R. (1982) Matrix Algebra Useful for Statistics. John Wiley and Sons Inc., Canada.

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