

UNIVERSITAS NEGERI PADANG

FACULTY OF MATHEMATICS AND NATURAL SCIENCES MATHEMATICS DEPARTMENT, MATHEMATICS STUDY PROGRAM Main Campus Universitas Negeri Padang. Jalan Prof. Dr. Hamka Air Tawar Padang, Sumatera Barat Telepon: +62 751 7053902, Fax: +62 751 7055628 Email: humas@unp.ac.id

Bachelor of Science in Mathematics

MODULE HANDBOOK

Module name:	Linear Models
Module level, if applicable:	Bachelor
Code:	MAT2.62.7006
Subheading, if applicable:	-
Classes, if applicable:	Linear Models
Semester:	7 th (seventh)
Module coordinator:	Head of Statistics Expertise Group
Lecturer(s):	Dr. Dodi Vionanda, M.Si. and Dra. Helma, M.Si.
Language:	Indonesian Language and English
Classification within the curriculum:	Compulsory course in the fourth year (7 th semester) Bachelor Degree
Teaching format / class hours per week during the semester:	 a. Lectures : Cooperative learning with methods such as expository, drill, and discussion (3 x 50 minutes = 150 minutes) b. Structured assignment : Weekly individual written assignment. (3 x 60 minutes = 180 minutes) c. Individual study (3 x 60 minutes = 180 minutes)
Workload: Credit points:	The total workload is 136 hours per semester, which consists of 150 minute lectures, 180 minute structured activities, and 180 minutes of self-study. In total, there are 16 weeks per semester, including midterm and final exams. 3 sks = 4.53 ECTS
Droroquigitas agursa(s):	Elementary Linear Algebra
Frerequisites course(s).	Mathematical Statistics Regression Analysis
Course outcomes:	 After taking this course, the students have ability to: CO1. Examines the model in the form of a matrix. CO2. Examine the use of matrix in the analysis of linear model (model of regression, model of experimental design, and general model) CO3. Determine the value of the parameter expectation model of maximum degree.

	CO4. Determine the value of parameter expectation model								
	of non-maximum degree								
Content:	1. Model representation in the form of a matrix.								
	2. The use of matrices in the analysis of linear models								
	(model of regression, model of experimental design,								
	and general model).								
	3. Determine the value of the parameter								
	expectation model of maximum degree.								
	4. Determine the value of the parameter expectation model of non maximum degree.								
Study / Exam Achievement	The final grade will be weighted as follows:								
	 The assessment consists of a final exam (35%), a mid-term exam (35%), individual reports (20%), and class activities: participation, attitude, and presence (10%). The final and midterm exams are essay tests with a closed book (120 minutes). Individual reports are completed in class through exercises. 								
Forms of media:	White Board, laptop, Projector, e-learning via								
	elearning2.unp.ac.id, and zoom meeting.								
Literature:	Main: 1. Searle, S R. and Gruber, M H J. 2017. <i>Linear Models</i> . John Wiley: New Jersey.								
	Recomended:								
	 Rencher, A C and Schaalje, G B. 2008. <i>Linear Models in Statistics</i>. John Wiley: New Jersey Faraway, J J2005. <i>Linear Models with R</i>. Chapman & H.W.(2009). For a scheme statistics. 								
	Hall/CKS: Florida								

PLO and CO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1									1	
CO2									1	
CO3										1
CO4										~