UNIVERSITAS NEGERI PADANG
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
MATHEMATICS DEPARTMENT, MATHEMATICS STUDY PROGRAM
Main Campus Universitas Negeri Padang.
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Bachelor of Science Mathematics   **MODULE HANDBOOK**

Module name:	Regression Analysis
Module level,if applicable:	Bachelor
Code:	MAT2.62.6002
Sub-heading,if applicable:	-
Classes,if applicable:	Regression Analysis
Semester:	6th (sixth)
Module coordinator:	Head of Statistics Expertise Group
Lecturer(s):	Dra. Helma, M.Si.
Language:	Indonesian Language and English
Classification within the curriculum:	Elective course in the third year (6th semester) Bachelor Degree
Teaching format / class hours per week during the semester:	Teaching format: lectures by Project Based Learning with individual projects. a. Lectures :by discussion (3 x 50 minutes = 150 minutes) b. Structured assignment : Project task (3 x 60 minutes = 180 minutes) c. Individual study. (3 x 60 minutes = 180 minutes)
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self-study per week for 16 weeks.
Creditpoints:	3 SKS = 4,53 ECTS
Prerequisites course(s):	Calculus, Elementary Linear Algebra, Statistical Elementary
Course outcomes:	After taking this course the students have ability to: CO1. Form the linear regression model of the given problem. CO2. Examine the suitability of linear regression model obtained with the data CO3. Transform of data if a regression model does not describe the data provided CO4. Construct the best regression model from a given problem

	Content:	Simple Linear Regression, Multiple Linear Regression, Residual Analysis, Transformation, Diagnostics for Influential Data, Polynomial Regression Models, Best Model Selection, Multicollinearity.
	Study/exam achievements:	The final mark will be weighted as follows: The assessment consists of a product report (40 %), oral test of a project task (40%), and class activities: participation, attitude, and presence (20 %).
	Forms of media:	White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.
	Literature:	Main: 1. Montgomery, D.C & Peck, Elizebeth A. & Vining, G.G. 2006 . *Introduction to Linear Regression Analysis*, Fourth Edition. John Wiley & Sons, Inc : New Jersey. Supporters: 1. Weisberg, S.A, 2005. "Applied Linear Regression". John Wiley & Sons. 2. Sheather, S.J, 2009. "A Modern Approach to Regression with R".Springer.

PLO and CO mapping

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