UNIVERSITAS NEGERI PADANG
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
MATHEMATICS DEPARTMENT, MATHEMATICS STUDY PROGRAM Main Campus Universitas Negeri Padang.
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Module name:	Multivariate Statistical Analysis
Module level, if applicable:	Bachelor
Code:	MAT2.62.6003
Subheading, if applicable:	-
Classes, if applicable:	Multivariate Statistical Analysis
Semester:	6th (sixth)
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:	Elective course in third year (6th semester) Bachelor Degree
Teaching format / class hours per week during the semester:	a. Lectures: Project Based Learning with methods such as expository, discussion, and presentation (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:	150 minutes lectures, 180 minutes structured activities, 180 minutes individual study, 16 weeks per semester (including mid exams), in total of 136 hours per semester.
Credit points:	3 SKS/ 4,53 ECTS
Prerequisites course(s):	1. Mathematical Statistics 2. Probability Theory
Course outcomes:	After taking this course the students have ability to: CO. 1 Differentiate dependency and interdependence multivariate method and their properties CO. 2 Decide the appropriate dependency multivariate method in solving the problem CO. 3 Decide the appropriate interdependency multivariate method in solving the problem

Content:	1. Characteristics of multivariate analysis 2. Classification of multivariate techniques 3. Dependency analysis (multiple linear regression analysis, Manova) 4. Interdependence analysis (factor analysis, cluster analysis)
Study/exam achievements:	The final grade will be weighted as follows: The assessment consists of a final project (40%), a midterm exam (30%), assignment (20%) and class activities: participation, attitude, and presence (10 %). Students are separated into groups and discussed about the characteristics of data multivariate, how to analyze, and using the appropriate models. The final project: students do study case related to the data multivariate and find the appropriate model. A midterm test is taken to examine whether students understand the theory covered in the half-semester course.
Forms of media:	White Board, laptop, Projector, e-learning via elearning2.unp.ac.id, and zoom meeting.
Literature	1. Johnson, R.A., and Wichern, D.W. (2007). Applied Multivariate Statistical Analysis. 6th ed. Prentice Hall, New York. 2. Rencher, A.C. and Christensen, W.F., 2012, Methods of Multivariate Analysis, 3nd Edition, John Wiley. 3. Gudono, 2014, Analisis Data Multivariat, Edisi ke 3, BPFE, Yogyakarta

PLO and CO mapping

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