UNIVERSITAS NEGERI PADANG
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
MATHEMATICS DEPARTMENT, MATHEMATICS EDUCATION STUDY PROGRAM
Main Campus Universitas Negeri Padang.
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Module name:	Multivariate Analysis
Module level, if applicable:	Bachelor
Code:	MAT2.61.8101
Sub-heading, if applicable:	-
Classes, if applicable:	Multivariate Analysis
Semester:	7th (Seventh)
Module coordinator:	Dra. Helma, M. Si.
Lecturer(s):	Dra. Helma, M. Si., and Team
Language:	Bahasa Indonesia
Classification within the curriculum:	Study Program Elective Course
Teaching format / class hours per week during the semester:	Teaching format: • Lectures (face to face activities): Group discussions and expository • Structured assignment • Independent activities. 3 x 170 minutes = 510 minutes = 8.50 hours
Workload:	16 weeks per semester include mid test consisting of: • 2.50 hours lectures (3 x 50 minutes) per week, • 3 hours structured assignments (3 x 60 minutes) per week, • 3 hours independent activities (3 x 60 minutes) per week 16 x 170 x 3 = 8160 Minutes =136 hours = 4.53 ECTS
Credit points:	3 SKS (4.53 ECTS)
Prerequisites course(s):	-
Course outcomes:	After taking this course the students have ability to: CO 1 : Understand the differences in multivariate analysis in the form of dependency and independency methods and their characteristics CO 2 : Apply the appropriate dependency multivariate method in solving the problem CO 3 : Apply the appropriate independency multivariate method in solving problems CO 4 : Show responsibility towards working individually and groups

Content:	This course discusses: 1. Introduction of multivariate analysis 2. Examining data 3. Conjoint analysis 4. Discriminant analysis 5. CA and DA 6. Conjoint analysis and DA 7. MANOVA 8. Factor analysis 9. Cluster analysis 10. Factor analysis and cluster analysis 11. The application of CA and FA 12. Multi-Dimensional Scaling (MDS)
Study/exam achievements:	Total score= (40% x Final Exam Score) + (40% x Individual Reports) + (20% x Affective Assessment at Class Activities: Participation, Attitude, and Presence) The initial cut - off points for grades A, A-, B+, B, B-, C+, C, C-, and D should not be less than 85, 80, 75, 70, 65, 60, 55, 50, and 40 out of 100 respectively. **Explanation:** **1. Final Exam** ✓ Final exam is held at the 18th meeting ✓ Final exam is a written exam and carried out in the classroom with an implementation time of 120 minutes which follows the Final exam implementation schedule of the department **2. Individual Report** ✓ Individual report is given as exercise before Final exam ✓ Individual report is about analyzing problem in daily life and solves it with the concept of the content in Multivariate Analysis. ✓ Assignments are given as individual task and it is submitted in limited time. **3. Affective Assessment** ✓ Affective assessment is held in every meeting by observing students' attitude in classroom and daily interaction at campus such as punctuality, responsibility etc. ✓ The assessment based on observation sheet and it was given score by affective rubric assessment.
Forms of media:	White-board, Laptop, LCD Projector
Literature	1. Montgomery, Doughlas C and George c.Runger. (2011) *Applied Statistics and Probability for Engineer*, John Wiley & Sons, Inc. USA. 2. Hair, Joseph F. Jr., William C. Black, Barry J. Babin Rolph, E. Anderson, (2014), *Multivariate Data Analysis*, Seventh Edion, USA, Pearson New International Edition.

PLO and CO Mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PL11
CO1	✓										
CO2	✓										
CO3	✓										
CO 4										✓	