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Undergraduate Program in Statistics
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MODULE HANDBOOK

Module name	Aljabar Linear untuk Statistika (Linear Algebra for Statistics)
Module level, if applicable	Bachelor
Code, if applicable	MMS-1479
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	2/first year
Person responsible for the module	Rianti Siswi Utami, S.Si., M.Sc.
Lecture(s)	Dr. Diah Junia Eksi Palupi, S.U. Rianti Siswi Utami, S.Si., M.Sc.
Language	Bahasa Indonesia
Classification within the Curriculum	Compulsory course/ ~~Elective Studies~~
Teaching format /class hours per week during the semester:	3 hours lecture
Workload	3 hours lectures, 6 hours individual study, 14 weeks per semester, and total 126 hours a semester
Credit points	3
Requirements	-
Module objectives/intended learning outcomes	By the end of this course, you should see improvement in your ability to: CO1. explain the concept of linear algebra, system of linear equations, vector and matrix theory. CO2. solve linear algebra problems logically CO3. apply the theory of linear algebra in solving statistics problems
Content	System of linear equation, Matrices and matrix operation, Inverse matrices, Determinants, Linear independence, basis and dimension, Eigenvalues and eigenvectors, Quadratic forms and positive definite matrices, Rank and canonical forms, Generalized inverse, Vector of differential operators, Application in Statistics, Matrix algebra of regression analysis.
Study and examination requirements and forms of examination	The weight of assignments will be as follows: i. Quiz, homework 10% ii. Group discussion 15% iii. Mid semester exam 35% iv. Final exam 40% Grade scale: A : 85 ≤ score A/B : 75 ≤ score < 85 B : 60 ≤ score < 75 B/C : 50 ≤ score < 60 C : 40 ≤ score < 50 D : 20 ≤ score < 40 E : score < 20
Media employed	Slides and LCD projectors, blackboards
Reading List	1. Anton, H. and Rorres, C., 2005, Elementary Linear Algebra, 9th edition, John Wiley & Sons, New Jersey.

	2. Schott, J. R., 1997, Matrix Analysis for Statistics, John Wiley & Sons, Canada. 3. Searle, S. R., 2006, Matrix Algebra Useful for Statistics, John Wiley & Sons, Canada.

CO and PLO mapping

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
CO 1	x						
CO 2	x						
CO 3						x	