**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  

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